2008 ENVIRONMENTAL PERFORMANCE INDEX

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Yale University

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Columbia University

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Disclaimers
This 2008 Environmental Performance Index (EPI) tracks national environmental results on a quantitative basis, measuring proximity to an established set of policy targets using the best data available. Data constraints and limitations in methodology make this a work in progress. Further refinements will be undertaken over the next few years. Comments, suggestions, feedback, and referrals to better data sources are welcome at: http://epi.yale.edu or epi@yale.edu.

The word “country” is used loosely in this report to refer both to countries and other administrative or economic entities. Similarly the maps presented are for illustrative purposes and do not imply any political preference in cases where territory is under dispute.

Acknowledgements
The 2008 Environmental Performance Index (EPI) represents the result of extensive consultations with subject-area specialists, statisticians, and policymakers around the world. Since any attempt to measure environmental performance requires both an in-depth knowledge of each dimension as well as the relationships between dimensions and the application of sophisticated statistical techniques to each, we have drawn on the expertise of a network of individuals, including: Jackie Alder, Michelle Bell, Aaron Best, Tim Boucher, Geneviève Carr, Amy Cassara, Aaron Cohen, Tom Damassa, Crystal Davis, Ellen Douglas, Darlene Dube, Jay Emerson, Majid Ezzati, Charlotte de Fraiture, Stanley Jay Glidden, Andres Gomez, Tobias Hahn, Peter Holmgren, Jon Hoekstra, Peter Gleick, Kailash Govil, Lloyd Irland, Michael Jennings, Claes Johansson, Kewin Kamelarczyk, Daniel Kammen, Hoseok Kim, R. Andreas Kraemer, Hak-Kyun Maeng, Tamara Maletic, Vali Mara, Denise Mauzerall, Dan Michelson, Sascha Müller-Kraenner, John O’Connor, Kiran Pandey, Tom Parris, Fiona Paua, Jonathan Pershing, Carmen Revenga, Carrie Rickwood, Kim Samuel-Johnson, Sara J. Scherr, Papa

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The 2008 EPI is built upon the work of a range of data providers, including our own prior data development work for the Pilot 2006 EPI and the 2005 Environmental Sustainability Index. The data are drawn primarily from international, academic, and research institutions with subject-area expertise, success in delivering operational data, and the capacity to produce policy-relevant interdisciplinary information tools. We are indebted to the data collection agencies listed in the Methodology Section, for providing the high-quality information necessary to move environmental decisionmaking toward more rigorous, quantitative foundations.

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EXECUTIVE SUMMARY

Fueled by advances in information technology, data-driven decisionmaking has transformed every corner of society, from business to biology. In the policy domain, quantitative performance metrics have reshaped decisionmaking processes in many arenas, including economics, health care, and education. The 2008 Environmental Performance Index (EPI) brings a similar data-driven, fact-based empirical approach to environmental protection and global sustainability.

Policymakers in the environmental field have begun to recognize the importance of incorporating analytically rigorous foundations into their decisionmaking. However, while policymakers are calling for increased intellectual rigor in environmental planning, large data gaps and a lack of time-series data still hamper efforts to track many environmental issues, spot emerging problems, assess policy options, and gauge effectiveness. The EPI seeks to fill these gaps and, more broadly, to draw attention to the value of accurate data and sound analysis as the basis for environmental policymaking.

The EPI focuses on two overarching environmental objectives:

- reducing environmental stresses to human health;
- promoting ecosystem vitality and sound natural resource management.

These broad goals also reflect the policy priorities of environmental authorities around the world and the international community's intent in adopting Goal 7 of the Millennium Development Goals (MDGs), to "ensure environmental sustainability." The two overarching objectives are gauged using 25 performance indicators tracked in six well-established policy categories, which are then combined to create a final score.

The 2008 EPI deploys a proximity-to-target methodology, which quantitatively tracks national performance on a core set of environmental policy goals for which every government can be – and should be – held accountable. By identifying specific targets and measuring the distance between the target and current national achievement, the EPI provides both an empirical foundation for policy analysis and a context for evaluating performance. Issue-by-issue analysis and aggregate rankings facilitate cross-country comparisons both globally and within relevant peer groups such as geography or economy.

It must be emphasized that the EPI's real value lies not in the numerical rankings, but rather in careful analysis of the underlying data and performance metrics. The results are displayed in numerous ways: by issue, policy category, peer group, and country. This format allows for identification of leaders and laggards, highlights best policy practices for each issue, and identifies priorities for action for each country. More generally, the EPI provides a powerful tool for steering environmental investments, refining policy choices, optimizing the impact of limited financial resources, and understanding the determinants of policy results.

Policy Conclusions

- Environmental decisionmaking can and should be made more data-driven and rigorous. A more fact-based and empirical approach to policymaking promises systematically better results.

- Notwithstanding data gaps and methodological limitations, the EPI demonstrates that environmental results can be tracked quantitatively, facilitating more refined policy analysis.

- To address these gaps, policymakers should invest in collecting additional data and tracking a core set of indicators over time. They must also set clear policy targets and incorporate indicators and reporting into policy formation, and shift toward more analytically rigorous environmental protection efforts at the global, regional, national, state/provincial, local, and corporate scales.

- Environmental challenges come in several forms which vary with wealth and development. Some issues arise as a function of economic activity and its resource and pollution impacts, such that developed and industrializing countries face the most severe harms. Other threats derive from poverty or a lack of basic environmental amenities, such as access to safe drinking water and basic sanitation. These issues affect primarily developing nations.

- Wealth correlates highly with EPI scores and particularly with environmental health results. But at every level of development, some countries achieve results that exceed their income-group peers while others fail to keep up. Statistical analysis suggests that in many cases good governance contributes to better environmental outcomes.

- The EPI uses the best available global datasets on environmental performance, but the overall data quality and availability is alarmingly poor. The absence of broadly-collected and methodologically-consistent indicators for even basic concerns such as water quality – and the complete lack of time-series data for most countries – hampers efforts to shift pollution control and natural resource management onto more empirical foundations.

The 2008 EPI relied on a team of scientific advisors and expert peer reviewers to identify the most appropriate indicators in each policy category, and in some cases to assist in processing the data, making this a truly collaborative effort with strong scientific underpinnings. Still, the EPI represents a work in progress, and comments and criticisms are welcome. It is intended not only to inform, but also to stimulate debate on defining the appropriate metrics and methodologies for evaluating environmental performance. As existing conceptual, methodological, and data challenges are overcome, better metrics will emerge – and a more refined EPI will be possible.

Table 1: EPI scores (by rank)

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Switzerland	95.5	51	South Korea	79.4	101	Laos	66.3
2	Sweden	93.1	52	Cyprus	79.2	102	Indonesia	66.2
3	Norway	93.1	53	Thailand	79.2	103	Côte d'Ivoire	65.2
4	Finland	91.4	54	Jamaica	79.1	104	Myanmar	65.1
5	Costa Rica	90.5	55	Netherlands	78.7	105	China	65.1
6	Austria	89.4	56	Bulgaria	78.5	106	Uzbekistan	65.0
7	New Zealand	88.9	57	Belgium	78.4	107	Kazakhstan	65.0
8	Latvia	88.8	58	Mauritius	78.1	108	Guyana	64.8
9	Colombia	88.3	59	Tunisia	78.1	109	Papua New Guinea	64.8
10	France	87.8	60	Peru	78.1	110	Bolivia	64.7
11	Iceland	87.6	61	Philippines	77.9	111	Kuwait	64.5
12	Canada	86.6	62	Armenia	77.8	112	United Arab Em.	64.0
13	Germany	86.3	63	Paraguay	77.7	113	Tanzania	63.9
14	United Kingdom	86.3	64	Gabon	77.3	114	Cameroon	63.8
15	Slovenia	86.3	65	El Salvador	77.2	115	Senegal	62.8
16	Lithuania	86.2	66	Algeria	77.0	116	Togo	62.3
17	Slovakia	86.0	67	Iran	76.9	117	Uganda	61.6
18	Portugal	85.8	68	Czech Rep.	76.8	118	Swaziland	61.3
19	Estonia	85.2	69	Guatemala	76.7	119	Haiti	60.7
20	Croatia	84.6	70	Jordan	76.5	120	India	60.3
21	Japan	84.5	71	Egypt	76.3	121	Malawi	59.9
22	Ecuador	84.4	72	Turkey	75.9	122	Eritrea	59.4
23	Hungary	84.2	73	Honduras	75.4	123	Ethiopia	58.8
24	Italy	84.2	74	Macedonia	75.1	124	Pakistan	58.7
25	Denmark	84.0	75	Ukraine	74.1	125	Bangladesh	58.0
26	Malaysia	84.0	76	Viet Nam	73.9	126	Nigeria	56.2
27	Albania	84.0	77	Nicaragua	73.4	127	Benin	56.1
28	Russia	83.9	78	Saudi Arabia	72.8	128	Central Afr. Rep.	56.0
29	Chile	83.4	79	Tajikistan	72.3	129	Sudan	55.5
30	Spain	83.1	80	Azerbaijan	72.2	130	Zambia	55.1
31	Luxembourg	83.1	81	Nepal	72.1	131	Rwanda	54.9
32	Panama	83.1	82	Morocco	72.1	132	Burundi	54.7
33	Dominican Rep.	83.0	83	Romania	71.9	133	Madagascar	54.6
34	Ireland	82.7	84	Belize	71.7	134	Mozambique	53.9
35	Brazil	82.7	85	Turkmenistan	71.3	135	Iraq	53.9
36	Uruguay	82.3	86	Ghana	70.8	136	Cambodia	53.8
37	Georgia	82.2	87	Moldova	70.7	137	Solomon Islands	52.3
38	Argentina	81.8	88	Namibia	70.6	138	Guinea	51.3
39	United States	81.0	89	Trinidad & Tobago	70.4	139	Djibouti	50.5
40	Taiwan	80.8	90	Lebanon	70.3	140	Guinea-Bissau	49.7
41	Cuba	80.7	91	Oman	70.3	141	Yemen	49.7
42	Poland	80.5	92	Fiji	69.7	142	Dem. Rep. Congo	47.3
43	Belarus	80.5	93	Congo	69.7	143	Chad	45.9
44	Greece	80.2	94	Kyrgyzstan	69.6	144	Burkina Faso	44.3
45	Venezuela	80.0	95	Zimbabwe	69.3	145	Mali	44.3
46	Australia	79.8	96	Kenya	69.0	146	Mauritania	44.2
47	Mexico	79.8	97	South Africa	69.0	147	Sierra Leone	40.0
48	Bosnia and Herz.	79.7	98	Botswana	68.7	148	Angola	39.5
49	Israel	79.6	99	Syria	68.2	149	Niger	39.1
50	Sri Lanka	79.5	100	Mongolia	68.1			

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1. THE NEED FOR ENVIRONMENTAL PERFORMANCE INDICATORS

Environmental policymaking is difficult under the best of circumstances. Decisionmakers must address a wide range of pollution control and natural resource management challenges in the face of incomplete or conflicting data, causal complexity, divergent values and preferences, and myriad uncertainties. Insufficient facts and lack of careful analysis makes each step of the process more difficult—problems are harder to see, trends are not identified, policy goals become more difficult to set, regulatory efforts may be misdirected, and investments in environmental protection may be wasted – ultimately resulting in suboptimum environmental performance. Shifting environmental policymaking onto firmer analytic foundations, based on carefully constructed data and indicators, therefore emerges as a matter of considerable urgency.

The commitment to empirical data is just a first step. Identifying an appropriate set of metrics is equally important. Some indicator initiatives have been too broad to be of great value.[1] In covering sustainable development or sustainability in a "triple bottom line" with environmental, social, and economic factors, as well as underlying endowments, accumulated harms, current policy efforts, and the prospect for changing future trajectories, these efforts lost coherence and therefore policy relevance.

Other efforts have been too narrow to cover the full spectrum of environmental challenges. In addressing only a subset of issues that policymakers and members of the scientific community identify as fundamental to meeting society's environmental challenges,these indices have limited value[2].

Our focus is on environmental sustainability and the current policy performance of individual nations. We have collected data on a list of core pollution and natural resource management challenges as identified by policy and scientific experts. While there is no "correct" answer to the proper scope of an environmental index, we believe our set of 25 indicators offers a comprehensive yet focused perspective on society's environmental challenges. The EPI includes a set of environmental indicators in key issue areas that should be of interest to policymakers in every country, and that can also be addressed through appropriate policies.

Building on the methodology established in the *Pilot 2006 Environmental Performance Index* (EPI), in addition to feedback from government and policy experts around the world and the advice of dozens of scientific experts, the 2008 EPI centers on current national environmental performance. It tracks actual results (almost exclusively output measures) related to a core set of environmental issues that many governments have prioritized. In addition to providing policymakers with decisionmaking guidance, the EPI advances environmental protection by providing a way to gauge the seriousness of environmental threats, the direction of pollution and

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[1] See, for example, Esty, D.C., M. Levy, T. Srebotnjak and A. de Sherbinin. 2005. *The 2005 Environmental Sustainability Index: Benchmarking National Environmental Stewardship.* New Haven: Yale Center for Environmental Law and Policy.; Prescott-Allen, R. 2001. *The Wellbeing of Nations. A Country-by-Country Index of Quality of Life and the Environment*. Island Press.
[2] See, for example, South Pacific Applied Geoscience Commission (SOPAC) and United Nations Environment Programme. *Environmental Vulnerability Index*. Suva, Fiji: SOPAC.

natural resource trends on the national, regional, and international levels, as well as the efficacy of current policy choices.

Metrics and solid analytic underpinnings are critical not only for good environmental policymaking but also for sustainable development. Driven in part by the 2000 Millennium Declaration and the Millennium Development Goals (MDGs), major global efforts are underway in the areas of education, health, and poverty reduction. While environmental sustainability was recognized in MDG Goal 7, environmental targets have not received the same level of attention as the other goals.

As a result, promising connections between the environment and other policy areas are going unrealized. This difficulty in moving forward with environmental improvements has been traced, in part, to an inability to identify the most pressing environmental problems, quantify the burdens imposed, measure policy progress, and assure funders in both the private and public sectors of the worth of their investments.
These limitations mean that pollution control and natural resource management issues have been systematically under-funded and lag behind other global challenges.

By choosing a proximity-to-target approach, the EPI seeks to meet the needs of governments to track on-the-ground environmental results. It offers a method to assess the effectiveness of environmental policies against relevant performance goals. It is specifically designed to help policymakers:

- spot current problems and identify priority environmental issues;
- track pollution control and natural resource management trends;
- highlight where current policies are producing good results;
- reveal where ineffective efforts can be halted and funding redeployed;
- provide a baseline for cross-country and cross-sectoral performance comparisons;
- facilitate benchmarking and help to identify leaders and laggards on an issue-by-issue basis; and
- spotlight best practices and successful policy models.

The EPI provides a path toward a world in which environmental targets are set explicitly, progress toward these goals is measured quantitatively, and policy evaluation is undertaken rigorously. As better data become available, particularly time-series data, future versions of the EPI will be able to track not only proximity to policy targets but also provide a "rate of progress" guide. Moreover, as the underlying datasets include additional nations, the future, "universal" EPI will permit global-scale data aggregations that will allow planetary-scale conclusions to be drawn about the world community's trajectory toward environmental sustainability.

More broadly, the EPI team hopes to inspire rigorous and transparent data collection across the world, facilitating movement toward a more empirical mode of environmental protection grounded on solid facts and careful analysis. With the billions of dollars now being spent by governments, corporations, and foundations on pollution and natural resource issues, it is alarming that there is no globally complete and methodologically consistent set of environmental performance indicators. By being forthright about the limitations of both this Environmental Performance Index and the data that underpins it, the Yale Center for Environmental Law and

Policy and the Center for International Earth Science Information Network hope to spur action in this regard.

Table 2: EPI scores (alphabetical)

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
27	Albania	84.0	13	Germany	86.3	3	Norway	93.1
66	Algeria	77.0	86	Ghana	70.8	91	Oman	70.3
148	Angola	39.5	44	Greece	80.2	124	Pakistan	58.7
38	Argentina	81.8	69	Guatemala	76.7	32	Panama	83.1
62	Armenia	77.8	138	Guinea	51.3	109	Papua New Guinea	64.8
46	Australia	79.8	140	Guinea-Bissau	49.7	63	Paraguay	77.7
6	Austria	89.4	108	Guyana	64.8	60	Peru	78.1
80	Azerbaijan	72.2	119	Haiti	60.7	61	Philippines	77.9
125	Bangladesh	58.0	73	Honduras	75.4	42	Poland	80.5
43	Belarus	80.5	23	Hungary	84.2	18	Portugal	85.8
57	Belgium	78.4	11	Iceland	87.6	83	Romania	71.9
84	Belize	71.7	120	India	60.3	28	Russia	83.9
127	Benin	56.1	102	Indonesia	66.2	131	Rwanda	54.9
110	Bolivia	64.7	67	Iran	76.9	78	Saudi Arabia	72.8
48	Bosnia & Herz.	79.7	135	Iraq	53.9	115	Senegal	62.8
98	Botswana	68.7	34	Ireland	82.7	147	Sierra Leone	40.0
35	Brazil	82.7	49	Israel	79.6	17	Slovakia	86.0
56	Bulgaria	78.5	24	Italy	84.2	15	Slovenia	86.3
144	Burkina Faso	44.3	54	Jamaica	79.1	137	Solomon Islands	52.3
132	Burundi	54.7	21	Japan	84.5	97	South Africa	69.0
136	Cambodia	53.8	70	Jordan	76.5	51	South Korea	79.4
114	Cameroon	63.8	107	Kazakhstan	65.0	30	Spain	83.1
12	Canada	86.6	96	Kenya	69.0	50	Sri Lanka	79.5
128	Central Afr. Rep.	56.0	111	Kuwait	64.5	129	Sudan	55.5
143	Chad	45.9	94	Kyrgyzstan	69.6	118	Swaziland	61.3
29	Chile	83.4	101	Laos	66.3	2	Sweden	93.1
105	China	65.1	8	Latvia	88.8	1	Switzerland	95.5
9	Colombia	88.3	90	Lebanon	70.3	99	Syria	68.2
93	Congo	69.7	16	Lithuania	86.2	40	Taiwan	80.8
5	Costa Rica	90.5	31	Luxembourg	83.1	79	Tajikistan	72.3
103	Côte d'Ivoire	65.2	74	Macedonia	75.1	113	Tanzania	63.9
20	Croatia	84.6	133	Madagascar	54.6	53	Thailand	79.2
41	Cuba	80.7	121	Malawi	59.9	116	Togo	62.3
52	Cyprus	79.2	26	Malaysia	84.0	89	Trinidad & Tobago	70.4
68	Czech Rep.	76.8	145	Mali	44.3	59	Tunisia	78.1
142	Dem. Rep. Congo	47.3	146	Mauritania	44.2	72	Turkey	75.9
25	Denmark	84.0	58	Mauritius	78.1	85	Turkmenistan	71.3
139	Djibouti	50.5	47	Mexico	79.8	117	Uganda	61.6
33	Dominican Rep.	83.0	87	Moldova	70.7	75	Ukraine	74.1
22	Ecuador	84.4	100	Mongolia	68.1	112	United Arab Em.	64.0
71	Egypt	76.3	82	Morocco	72.1	14	United Kingdom	86.3
65	El Salvador	77.2	134	Mozambique	53.9	39	United States	81.0
122	Eritrea	59.4	104	Myanmar	65.1	36	Uruguay	82.3
19	Estonia	85.2	88	Namibia	70.6	106	Uzbekistan	65.0
123	Ethiopia	58.8	81	Nepal	72.1	45	Venezuela	80.0
92	Fiji	69.7	55	Netherlands	78.7	76	Viet Nam	73.9
4	Finland	91.4	7	New Zealand	88.9	141	Yemen	49.7
10	France	87.8	77	Nicaragua	73.4	130	Zambia	55.1
64	Gabon	77.3	149	Niger	39.1	95	Zimbabwe	69.3
37	Georgia	82.2	126	Nigeria	56.2			

2. THE EPI FRAMEWORK

The 2008 EPI offers a composite index of current national environmental protection efforts. Recognizing that on-the-ground conditions are the ultimate gauge of environmental performance, the EPI focuses on measurable outcomes that can be linked to policy targets and tracked over time.

The EPI builds on measures relevant to two core objectives:

1. reducing environmental stresses to human health (the Environmental Health objective); and
2. protecting ecosystems and natural resources (the Ecosystem Vitality objective).

The quantitative metrics underlying the 2008 EPI encompass 25 indicators chosen through: a broad-based review of the environmental science literature; in-depth consultation with a group of scientific advisors in each policy category; the evidence from the Millennium Ecosystem Assessment, the Intergovernmental Panel on Climate Change, the Global Environmental Outlook-4, and other assessments; environmental policy debates surrounding multilateral environmental agreements; and expert judgment. Each indicator builds on a foundation either in environmental health or ecological science.

Some of these metrics track the underlying concept closely. Others are "proxy" variables that imperfectly reflect the theoretical focus. The EPI uses the best available global data. The 25 indicators each represent core elements of the environmental policy challenge.

For each indicator, a relevant long-term public health or ecosystem sustainability goal is identified. These targets are drawn from 1) treaties or other internationally agreed upon goals; 2) standards set by international organizations; 3) leading national regulatory requirements; or the 4) prevailing scientific consensus. The indicators serve as a gauge of long-term environmental policy success. For each country and each indicator, a proximity-to-target value is calculated based on the distance from a country's current results to the policy target.

In calculating EPI scores, we average around isolated data gaps. But countries with more than a few missing data values (preventing any of our category scores from being calculated) are dropped from the Index. Our data matrix covers 149 countries for which an EPI can be calculated across the 25 indicators. Data gaps mean that another 90 or so countries cannot be ranked in the 2008 EPI.

Using the 25 indicators, scores are calculated at three levels of aggregation (see Figure 1).

1. First, building on two to eight underlying indicators (each representing a data set), we calculate scores for each of the six core policy categories – Environmental Health, Air Quality, Water Resources, Biodiversity and Habitat, Productive Natural Resources, and Climate Change. In some cases, subcategories are also tracked. The weight given to each indicator varies as shown in Table 2. This level of aggregation permits countries to track their relative performance within these well-established policy areas – or at the disaggregated indicator level.

2. Second, the Environmental Health subcategories and the Ecosystem Vitality categories are aggregated with weights allocated as shown in Figure 1.

3. Finally, the overall Environmental Performance Index is calculated, based on the arithmetic mean of the two broad objective scores. The logic for the weightings each subcategories and indicators is discussed below.

2.1. Indicator Selection and Targets

Indicators were sought to cover the full spectrum of issues underlying each of the major policy categories identified. To ensure the use of the best suited metrics, the following indicator selection criteria were applied:

Relevance: The indicator clearly tracks the environmental issue of concern in a way that is relevant to countries under a wide range of circumstances.

Performance orientation: The indicator tracks ambient conditions or on-the-ground results (or is a “best available data” proxy for such outcome measures).

Transparency: The indicator provides a clear baseline measurement, has the ability to track changes over time, and is transparent with regard to data sources and methods.

Data quality: The data used by the indicator should meet basic quality requirements and represent the best measure available.

2.2. Data Gaps and Country Data Coverage

The 2008 EPI utilizes the best environmental data available, but remains seriously constrained by a lack of both quality and quantity in data sources. Of a possible 238 countries, the 2008 EPI covers 149, which is up from the 133 covered in the 2006 Pilot EPI. Still, almost 90 countries cannot be included in the EPI because data are not available in one of the six policy categories.

Many critical issues also lack reliable measures. Due to a lack of data, limited country coverage, methodological inconsistencies, or otherwise poor-quality metrics, a number of relevant issues that are considered to be policy relevant and scientifically important are not reflected in the EPI. These gaps include:

- exposure to toxic chemicals;
- exposure to heavy metals;
- several dimensions of ambient air quality;
- waste management (including both household and toxic waste);
- nuclear safety;
- pesticide safety and chemical exposure;
- wetlands loss;

- health of freshwater ecosystems;
- agricultural soil quality and erosion; and
- several aspects of greenhouse gas emissions.

It is hoped that future iterations of the EPI will be able to include indicators tracking these issue areas.

2.3. Targets

The EPI builds on a set of carefully chosen policy targets (see last column of Table 2). Measuring success against these targets provides useful information about country-specific conditions and policy results, as well as areas in need of increased attention and resources. A proximity-to-target measure helps to clarify comparative rankings, demonstrate which countries are leading or lagging in each area, and whether (as a global aggregate) the world is on a sustainable trajectory.

Whenever possible our targets are based on international treaties and agreements. For issues with no international agreements, we looked next to environmental and public health standards developed by international organizations and national governments, the scientific literature, and finally, expert opinion from around the world. Only a few of the indicators have explicit consensus targets established at a global scale. This suggests that there is also a need for the international and national policy communities to be clearer about the long-term goals of environmental policies set at all levels. International agreements are often based on compromises, however, and targets derived from them do not necessarily reflect environmental performance required for full sustainability.

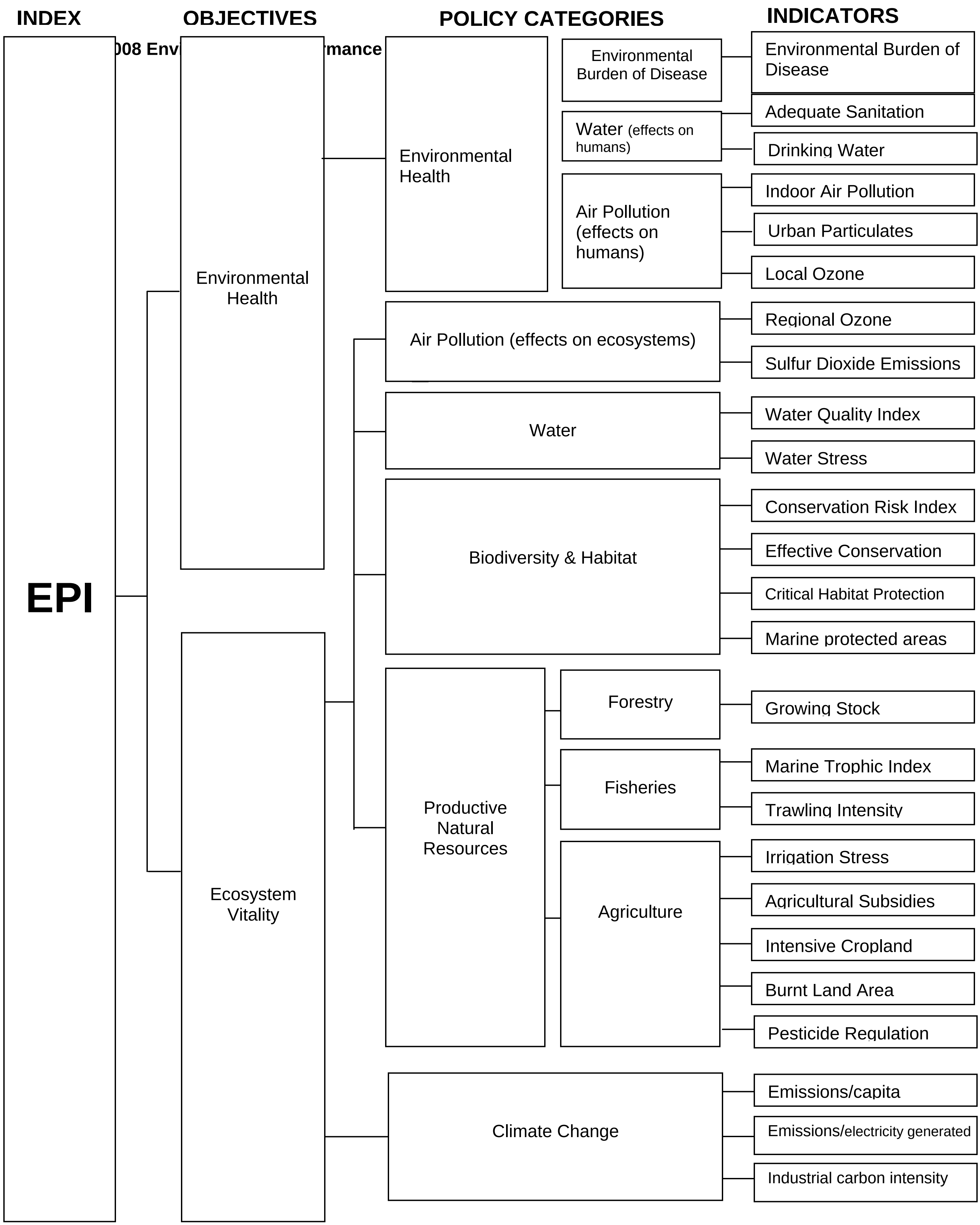

Figure 1: Construction of the EPI

Table 3: Weights (as % of total EPI score), Sources, and Targets of EPI Objectives, Categories, Subcategories, and Indicators

Index	Objectives	Policy Categories	Subcategories	Indicators	Indicator Code	Data Source	Target
EPI	Environmental Health 50%			Environmental burden of disease 25%	DALY	WHO	0 DALYs
			Water (effects on humans) 12.5%	Adequate sanitation 6.25%	ACSAT	WHO-UNICEF Joint Monitoring Program	100%
				Drinking water 6.25%	WATSUP	WHO-UNICEF Joint Monitoring Program	100%
			Air Pollution (effects on humans) 12.5%	Urban particulates 5%	PM10	World Bank, WHO	20 ug/m^3
				Indoor air pollution 5%	INDOOR	WHO	0%
				Health ozone 2.5%	OZONE_H	MOZART II model	0 exceedance above 85 ppb
	Ecosystem Vitality 50%	Air Pollution (effects on ecosystems) 2.5%		Ecosystem ozone 1.25%	OZONE_E	MOZART II model	0 exceedance above 3,000 AOT40. AOT40 is cumulative exceedance above 40 ppb during daylight summer hours
				Sulfur dioxide emissions 1.25%	SO2	EDGAR/Netherlands	0 tons SO_2 / populated land
		Water (effects on ecosystems) 7.5%		Water quality 3.25%	WATQI	UNEP GEMS/Water	100 score
				Water stress 3.25%	WATSTR	UNH Water Systems Analysis	0% territory under water stress
		Biodiversity & Habitat 7.5%		Conservation risk index [7.5 / (2+AZE weight + MPAEEZ weight)]%	CRI	The Nature Conservancy calculation	0.5 ratio
				Effective conservation [7.5 / (2+AZE weight + MPAEEZ weight)]%	EFFCON	The Nature Conservancy calculation	10%
				Critical habitat protection* [if no AZE sites: 0; if AZE sites: 7.5 / (2+AZE weight + MPAEEZ weight)]%	AZE	The Nature Conservancy calculation	100%
				Marine Protected Areas* [minimum of 7.5*EEZ area / land area and 7.5, divided by (2+AZE weight + MPAEEZ weight)]%	MPAEEZ	Sea Around Us Project, Fisheries Centre, UBC	10%

	Ecosystem Vitality 50%	**Productive Natural Resources** 7.5%	**Forestry*** 2.5%	**Growing stock change** 2.5%	FORGRO	FAO	ratio of at least 1
			Fisheries* 2.5%	**Marine Trophic Index** 1.25%	MTI	UBC, Sea Around Us Project	no decline
				Trawling intensity 1.25%	EEZTD	UBC, Sea Around Us Project	0%
			Agriculture* 2.5%	**Irrigation Stress*** 0.5%	IRRSTR	CIESIN calculation	0%
				Agricultural Subsidies 0.5%	AGSUB	World Bank, World Development Report	0
				Intensive cropland 0.5%	AGINT	CIESIN calculation	0%
				Burned Land Area 0.5%	BURNED	CIESIN calculation	0%
				Pesticide Regulation 0.5%	PEST	UNEP-Chemicals	9 banned POP chemicals and full participation in Rotterdam and Stockholm Conventions
		Climate Change 25%		**Emissions per capita** 8.33%	GHGCAP	IEA, CDIAC, Houghton	2.24 Mt CO_2 eq. (Estimated value associated with 50% reduction in global GHG emissions by 2050, against 1990 levels)
				Emissions per electricity generation 8.33%	CO2KWH	IEA	0 g CO_2 per kWh
				Industrial carbon intensity 8.33%	CO2IND	IEA, WDI	0.85 tons of CO2 per $1000 (USD, 2005, PPP) of industrial GDP (Estimated value associated with 50% reduction in global GHG emissions by 2050, against 1990 levels)

*Averaged around if missing data or not applicable to country

2.4. Calculating the EPI

To make the 25 indicators comparable, each metric was converted to a proximity-to-target-measure with a range of 0 to 100.

Initially, we examined the distribution of each indicator to identify whether extreme values skew the aggregations of some indicators. Extreme outliers (greater than or equal to three standard deviations from the mean) are more likely to be the result of data processing (especially for modeled data) than actual performance. Accordingly, we adjusted outliers using a recognized statistical technique called winsorization – in this case trimming at the 95th percentile of the distribution. In a small number of cases even this level of winsorization left significant outliers, and in such cases we winsorized at a greater level based on a comparison of the two alternative values (see Appendix E for Methodology details).

A second decision concerned the treatment of countries that exceeded the long-term performance or sustainability target. To avoid rewarding "over-performance," no indicator values above the long-term target were used. In the few cases where a country did better than the target, the value was reset so that it was equal to the target. Once those two adjustments were made, a simple arithmetic transformation was undertaken: the observed values were placed onto a zero to 100 scale where 100 corresponds to the target and zero to the worst observed value.

2.5. Data Aggregation and Weighting

Aggregation is an area of inescapable methodological controversy. While the field of composite index construction has become a well-recognized subset of statistical analysis, there is no clear consensus on how best to construct composite indices. Various aggregation methods exist, and the choice of an appropriate method depends on the purpose of the composite indicator as well as the nature of the subject being measured.

To help identify appropriate groupings and weights for each indicator, we carried out a principal component analysis (PCA). Most categories did not have clear referents in the PCA results. Absent a PCA-derived basis for weighting the indicators, equal weights were used with some refinements determined by the EPI team with expert guidance.

The Environmental Health and Ecosystem Vitality subcategories each represent 50% of the total EPI score. This equal division of the EPI into issues related to (1) humans and (2) nature is not a matter of science but rather policy judgment. But this even weighting of the two overarching objectives of environmental policy reflects a widely-held intuition, and this choice (used in the 2006 Pilot EPI) has not been generally criticized. Indeed, for every "deep ecologist" who favors more weight being placed on Ecosystem Vitality, there is a "humans first" environmental policymaker who prefers that the tilt go the other way.

Within the Environmental Health Objective/Policy Category, the Environmental Burden of Disease (DALY) indicator is weighted 50% and accordingly contributes 25% of the overall EPI score, because it is widely regarded to be the most comprehensive and carefully-defined measure of environmental health burdens. The effects of Water and Air Pollution on human health comprise the remainder of the Environmental Health subcategory and are each allocated a quarter of the total score for Environmental Health, reflecting a widespread policy consensus.

The two water-related Environmental Health indicators (Adequate Sanitation and Drinking Water) are equally weighted. In the Air Pollution sub-category, Urban Particulates and Indoor Air Pollution receive equal weights, and double the weight given to the effects of ground-level Ozone on human health. Urban particulates and indoor air pollution are widely acknowledged by the United Nations Environment Programme (UNEP), World Health Organization (WHO), and United Nations Children's Fund (UNICEF) as important indicators of the burden of air pollution on human health. There is, however, a growing literature that suggests a link between ozone exposure and human health. Our human exposure to ozone metric assesses person-days of exposure per year to ground-level ozone exceeding 85 parts per billion (ppb). Because this indicator is experimental, we give it half the weight of those with known reliability.

Within the Ecosystem Vitality Objective, the Climate Change indicator carries 50% of the weight (i.e., 25% within the total EPI). This is owing to the increasing importance attached to climate change in policy discussions, and its potential to have far reaching impacts across all aspects of ecosystem vitality and natural resource management. The Air Pollution (effects on ecosystems) policy category is weighted at 5% of the Ecosystem Vitality Objective. This slightly lower weight when compared to water, biodiversity, and productive natural resources is owing to the fact that Air Pollution is already partially captured in the Environmental Health Objective. The remaining indicators: Water, Biodiversity, and Productive Natural Resources, are each evenly weighted to cover the remaining 22.5% of the Ecosystem Vitality Objective.

3: RESULTS AND ANALYSIS

The 2008 EPI provides policymakers and environmental experts an empirically grounded basis for comparing the environmental performance of nearly 150 countries worldwide. While general trends exist, such as a correlation between wealth and strong environmental health performance, some countries perform beyond income-based expectations. The results highlight policy leaders and laggards. They also provide a basis for identifying environmental “best practices.”

3.1. Overall EPI Results

The top five countries in the 2008 EPI, in order of best performance, are Switzerland, Sweden, Norway, Finland, and Costa Rica. As expected, developed countries with significant financial resources for environmental management make up a large portion of top performers, although there are exceptions. For example, Costa Rica, a middle-income country, outperforms many developed countries as well as its neighbors.

The bottom five countries in the 2008 EPI in reverse order of performance are Niger, Angola, Sierra Leone, Mauritania, and Mali. These sub-Saharan African countries are among the poorest countries in the world and lack resources for even basic environmental investments.

Mid-ranked performers of note include the United States (39), Russia (28), Brazil (35), Mexico (47), South Africa (97), India (120), and China (105).

Overall there were many more high performing countries in the Environmental Health arena than in Ecosystem Vitality. Sixty-six countries, mostly in the developed world, had scores of 90 or above in Environmental Health, whereas only two scored above 90 in Ecosystem Vitality. The number of high performers in Environmental Health reflects government attention to basic human needs, such as drinking water and sanitation. Unlike Ecosystem Vitality, Environmental Health is highly correlated with wealth, indicating that many of the low-performing countries have not made the investments necessary to curtail environmental pollutants or to provide adequate water and sanitation to their citizens.

Because so many countries had high Environmental Health scores, especially among the top countries, poor performance in Ecosystem Vitality had the ability to reduce a country’s rank substantially. Countries such as Australia, Belgium, and the United States, which have Environmental Health scores over 98, perform well below many members of their peer groups in the EPI because of their substantially lower Ecosystem Vitality scores.

Marks in Ecosystem Vitality are more normally distributed than marks in Environmental Health. This reflects the greater heterogeneity of performance across countries of different income classes, which itself is a reflection of different levels of performance across a wide-ranging list of indicators from greenhouse gas emissions per capita to fisheries management and water quality. Countries perform quite differently from one another depending on levels of industrialization, fossil fuel and resource consumption, trade, and environmental protection.

Countries that scored well in Ecosystem Vitality often did so for very different reasons. Of the two countries with scores above 90, Switzerland's performance can be primarily attributed to good environmental management whereas Laos's high score arises from a lack of development and limited stress on the land, air, and water.

Countries falling in the middle of the EPI rankings vary considerably. Some low-ranked countries, such as Kuwait, at 111th position, have Environmental Health scores above 90. This result suggests they have on-going struggles with one or more of the ecosystem vitality policy categories. Likewise, Laos, despite its top ecosystem vitality score, ranks at 101 in the EPI because of a very low environmental health score.

The United States, though very high in the Environmental Health score, ranked at 107th in the Ecosystem Vitality category, below countries like Sudan and Myanmar, which have significant non-environmental challenges and limited resources for environmental protection. Poor performance in the areas of climate change and air pollution reduced the United States' score significantly.

China and India, containing about one third of the world's population, received similarly low Ecosystem Vitality scores. Both countries were ranked in the bottom third of the index. However China scored better in the overall EPI because of its higher Environmental Health score.

3.2. Results by Peer Groupings

The overall EPI results offer a useful snapshot of environmental performance. But breaking down the results into political, geographic, and economic peer groups offers an even more valuable perspective because it allows for comparisons between countries. Peer group analysis gives policymakers a way to understand the context of their policy choices and guidance on what is possible in the way of performance in light of the performance of other countries with similar socioeconomic or geographic circumstances. The policies and programs of the peer group leaders present an important guide to best practices and the most efficient approaches to improving environmental health and ecosystem vitality with similar challenges and opportunities.

OECD countries occupy four of the top five ranks in the 2008 EPI. All of the OECD countries are in the top half of the index, and most are in the top quarter. These relatively wealthy countries all have quite good Environmental Health results. But their scores for the various metrics of Ecosystem Vitality vary widely. Some of these nations, notably the Scandinavians, have distinct geographic advantages, including large land areas and low population densities. But their success is also a function of concerted policy effort and deep commitment to environmental values across their public and business communities.

The Least Developed Countries (LDCs), conversely, did not score as well. None of the LDCs were in the top half of the EPI, and the bottom 14 countries in the EPI are all from this group. With little access to financial resources for immediate needs like nutrition and disease, many of these countries are struggling to make even baseline efforts on environmental health. Their lack of development translates into limited pollution stress and thus contributes to relatively strong scores on air pollution, climate change, and biodiversity.

High population density countries are spread throughout the EPI. Germany, for example, sits in the 13th position while Burundi ranks 132nd. High population density generates special challenges, but the high-ranked performers in this category demonstrate that population density is not an insurmountable barrier to good environmental quality. Many of the lower-ranked countries in this grouping face challenges, but can look to their higher-ranking peers for guidance on how to develop in an environmentally sustainable manner.

Other peer groups, such as the African Union, the Alliance of Small Island States, the Desert Countries, and the Newly Independent States, are spread across the EPI. Each of these peer groups is largely populated by developing countries that struggle with a wide variety of challenges, including a lack of natural resources like water and arable land, as well as the burden of poverty.

The Desert Countries peer grouping reveals the ecological challenges these countries face. The top ten countries in this peer group score in the middle third of the total EPI ranking. And the bottom three – Iraq, Mauritania, and Niger – fall in the bottom 10% of the overall ranking. This peer group highlights the success of policies dealing with aridity and water management and the subsequent effect on ecosystem vulnerability issues.

The Free Trade Areas of the Americas peer group overlaps with most of the America regional grouping, with the exception of Cuba. The member countries fall in a wide range, from Costa Rica which ranks 5th to Haiti which ranks 119th. These disparate rankings reflect the vast range of environmental performance, which may lead to trade tensions in the future. For the European Union member countries, however, the spread is much more narrow. All the countries, except for Romania, fall in the top half of overall ranking, with five making the top ten.

Shared geography and climate provides a natural line of comparison, and countries often think of themselves as being similar to and compare themselves with their neighbors. Regional associations are thus an obvious basis for peer grouping. Despite the close geographic proximity, the countries of the African Union, Newly Independent States, and Asian-Pacific Economic Cooperation vary widely in their environmental performance. The results suggest that location is not everything – how a country and government uses its natural endowment is still a factor.

Overall, geographic peer groups show much more diversity than do groupings like the OECD and the LDCs. This result implies that countries in the midst of economic transitions vary widely in how well they fold environmental protection into their development strategies. Further analysis of these peer groups and of countries grouped by income deciles can be found at the website: http://epi.yale.edu

Table 4: Organisation for Economic Co-operation and Development (OECD) Member Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Switzerland	95.5	11	United Kingdom	86.3	21	United States	81.0
2	Sweden	93.1	12	Slovakia	86.0	22	Poland	80.5
3	Norway	93.1	13	Portugal	85.8	23	Greece	80.2
4	Finland	91.4	14	Japan	84.5	24	Australia	79.8
5	Austria	89.4	15	Hungary	84.2	25	Mexico	79.8
6	New Zealand	88.9	16	Italy	84.2	26	South Korea	79.4
7	France	87.8	17	Denmark	84.0	27	Netherlands	78.7

8	Iceland	87.6	18	Spain	83.1	28	Belgium	78.4
9	Canada	86.6	19	Luxembourg	83.1	29	Czech Republic	76.8
10	Germany	86.3	20	Ireland	82.7	30	Turkey	75.9

Table 5: Least Developed Countries (LDCs)

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Nepal	72.1	13	Benin	56.1	24	Djibouti	50.5
2	Laos	66.3	14	Central Afr. Rep.	56.0	25	Guinea-Bissau	49.7
3	Myanmar	65.1	15	Sudan	55.5	26	Yemen	49.7
4	Tanzania	63.9	16	Zambia	55.1	27	Dem. Rep. Congo	47.3
5	Senegal	62.8	17	Rwanda	54.9	28	Chad	45.9
6	Togo	62.3	18	Burundi	54.7	29	Burkina Faso	44.3
7	Uganda	61.6	19	Madagascar	54.6	30	Mali	44.3
8	Haiti	60.7	20	Mozambique	53.9	31	Mauritania	44.2
9	Malawi	59.9	21	Cambodia	53.8	32	Sierra Leone	40.0
10	Eritrea	59.4	22	Solomon Islands	52.3	33	Angola	39.5
11	Ethiopia	58.8	23	Guinea	51.3	34	Niger	39.1
12	Bangladesh	58.0						

Table 6: High Population Density

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Germany	86.3	7	Belgium	78.4	13	Lebanon	70.3
2	Taiwan	80.8	8	Mauritius	78.1	14	Haiti	60.7
3	Sri Lanka	79.5	9	Philippines	77.9	15	India	60.3
4	South Korea	79.4	10	El Salvador	77.2	16	Bangladesh	58.0
5	Jamaica	79.1	11	Nepal	72.1	17	Rwanda	54.9
6	Netherlands	78.7	12	Trinidad & Tobago	70.4	18	Burundi	54.7

Table 7: Association of Southeast Asian Nations (ASEAN) Member Countries and China, Japan, and South Korea

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Japan	84.5	5	Philippines	77.9	9	Myanmar	65.1
2	Malaysia	84.0	6	Viet Nam	73.9	10	China	65.1
3	South Korea	79.4	7	Laos	66.3	11	Cambodia	53.8
4	Thailand	79.2	8	Indonesia	66.2			

Table 8: Asian Pacific Economic Cooperation (APEC) Member Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	New Zealand	88.9	7	United States	81.0	13	Philippines	77.9
2	Canada	86.6	8	Australia	79.8	14	Viet Nam	73.9
3	Japan	84.5	9	Mexico	79.8	15	Indonesia	66.2
4	Malaysia	84.0	10	South Korea	79.4	16	China	65.1
5	Russia	83.9	11	Thailand	79.2	17	Papua New Guinea	64.8
6	Chile	83.4	12	Peru	78.1			

Table 9: Organization of the Petroleum Exporting Countries (OPEC) Member Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Ecuador	84.4	5	Saudi Arabia	72.8	9	Nigeria	56.2
2	Venezuela	80.0	6	Indonesia	66.2	10	Iraq	53.9
3	Algeria	77.0	7	Kuwait	64.5	11	Angola	39.5

4	Iran	76.9	8	United Arab Em.	64.0			

Table 10: African Union Member Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Mauritius	78.1	15	Cameroon	63.8	29	Madagascar	54.6
2	Tunisia	78.1	16	Senegal	62.8	30	Mozambique	53.9
3	Gabon	77.3	17	Togo	62.3	31	Guinea	51.3
4	Algeria	77.0	18	Uganda	61.6	32	Djibouti	50.5
5	Egypt	76.3	19	Swaziland	61.3	33	Guinea-Bissau	49.7
6	Ghana	70.8	20	Malawi	59.9	34	Chad	45.9
7	Namibia	70.6	21	Eritrea	59.4	35	Burkina Faso	44.3
8	Congo	69.7	22	Ethiopia	58.8	36	Mali	44.3
9	Zimbabwe	69.3	23	Nigeria	56.2	37	Mauritania	44.2
10	Kenya	69.0	24	Central Afr. Rep.	56.0	38	Sierra Leone	40.0
11	South Africa	69.0	25	Sudan	55.5	39	Angola	39.5
12	Botswana	68.7	26	Zambia	55.1	40	Niger	39.1
13	Côte d'Ivoire	65.2	27	Rwanda	54.9			
14	Tanzania	63.9	28	Burundi	54.7			

Table 11: Alliance of Small Island States

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Dominican Rep.	83.0	5	Mauritius	78.1	9	Papua New Guinea	64.8
2	Cuba	80.7	6	Belize	71.7	10	Haiti	60.7
3	Cyprus	79.2	7	Fiji	69.7	11	Solomon Islands	52.3
4	Jamaica	79.1	8	Guyana	64.8	12	Guinea-Bissau	49.7

Table 12: Russia and Newly Independent States (NIS Member Countries) that were Republics of the Former Soviet Union

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Latvia	88.8	6	Belarus	80.5	11	Turkmenistan	71.3
2	Lithuania	86.2	7	Armenia	77.8	12	Moldova	70.7
3	Estonia	85.2	8	Ukraine	74.1	13	Kyrgyzstan	69.6
4	Russia	83.9	9	Tajikistan	72.3	14	Uzbekistan	65.0
5	Georgia	82.2	10	Azerbaijan	72.2	15	Kazakhstan	65.0

Table 13: Desert Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Israel	79.6	7	Azerbaijan	72.2	13	Kazakhstan	65.0
2	Algeria	77.0	8	Morocco	72.1	14	United Arab Em.	64.0
3	Iran	76.9	9	Turkmenistan	71.3	15	Pakistan	58.7
4	Jordan	76.5	10	Namibia	70.6	16	Iraq	53.9
5	Egypt	76.3	11	Oman	70.3	17	Mauritania	44.2
6	Saudi Arabia	72.8	12	Uzbekistan	65.0	18	Niger	39.1

Table 14: Free Trade Area of the Americas (FTAA) Member Countries

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Costa Rica	90.5	10	Argentina	81.8	19	Honduras	75.4
2	Colombia	88.3	11	United States	81.0	20	Nicaragua	73.4
3	Canada	86.6	12	Venezuela	80.0	21	Belize	71.7
4	Ecuador	84.4	13	Mexico	79.8	22	Trinidad & Tobago	70.4

5	Chile	83.4	14	Jamaica	79.1	23	Guyana	64.8
6	Panama	83.1	15	Peru	78.1	24	Bolivia	64.7
7	Dominican Rep.	83.0	16	Paraguay	77.7	25	Haiti	60.7
8	Brazil	82.7	17	El Salvador	77.2			
9	Uruguay	82.3	18	Guatemala	76.7			

Table 15: European Union (EU) Member Countries

Rank	Country	EPI	Rank	Country	EPI	Rank	Country	EPI
1	Sweden	93.1	10	Slovakia	86.0	19	Poland	80.5
2	Finland	91.4	11	Portugal	85.8	20	Greece	80.2
3	Austria	89.4	12	Estonia	85.2	21	Cyprus	79.2
4	Latvia	88.8	13	Italy	84.2	22	Netherlands	78.7
5	France	87.8	14	Hungary	84.2	23	Bulgaria	78.5
6	Germany	86.3	15	Denmark	84.0	24	Belgium	78.4
7	United Kingdom	86.3	16	Spain	83.1	25	Czech Rep.	76.8
8	Slovenia	86.3	17	Luxembourg	83.1	26	Romania	71.9
9	Lithuania	86.2	18	Ireland	82.7			

Table 16: Americas

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Costa Rica	90.5	10	Argentina	81.8	19	Guatemala	76.7
2	Colombia	88.3	11	United States	81.0	20	Honduras	75.4
3	Canada	86.6	12	Cuba	80.7	21	Nicaragua	73.4
4	Ecuador	84.4	13	Venezuela	80.0	22	Belize	71.7
5	Chile	83.4	14	Mexico	79.8	23	Trinidad & Tobago	70.4
6	Panama	83.1	15	Jamaica	79.1	24	Guyana	64.8
7	Dominican Rep.	83.0	16	Peru	78.1	25	Bolivia	64.7
8	Brazil	82.7	17	Paraguay	77.7	26	Haiti	60.7
9	Uruguay	82.3	18	El Salvador	77.2			

Table 17: Asia and Pacific

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	New Zealand	88.9	9	Philippines	77.9	17	China	65.1
2	Japan	84.5	10	Viet Nam	73.9	18	Papua New Guinea	64.8
3	Malaysia	84.0	11	Nepal	72.1	19	India	60.3
4	Taiwan	80.8	12	Fiji	69.7	20	Pakistan	58.7
5	Australia	79.8	13	Mongolia	68.1	21	Bangladesh	58.0
6	Sri Lanka	79.5	14	Laos	66.3	22	Cambodia	53.8
7	South Korea	79.4	15	Indonesia	66.2	23	Solomon Islands	52.3
8	Thailand	79.2	**16**	Myanmar	65.1			

Table 18: Eastern Europe and Central Asia

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Slovakia	86.0	7	Bulgaria	78.5	13	Turkmenistan	71.3
2	Albania	84.0	8	Macedonia	75.1	14	Moldova	70.7
3	Russia	83.9	9	Ukraine	74.1	15	Kyrgyzstan	69.6
4	Georgia	82.2	10	Tajikistan	72.3	16	Uzbekistan	65.0
5	Belarus	80.5	11	Azerbaijan	72.2	17	Kazakhstan	65.0
6	Bosnia & Herz.	79.7	12	Romania	71.9			

Table 19: European Union

Rank	Country	EPI	Rank	Country	EPI	Rank	Country	EPI
1	Sweden	93.1	10	Slovakia	86.0	19	Poland	80.5
2	Finland	91.4	11	Portugal	85.8	20	Greece	80.2
3	Austria	89.4	12	Estonia	85.2	21	Cyprus	79.2
4	Latvia	88.8	13	Italy	84.2	22	Netherlands	78.7
5	France	87.8	14	Hungary	84.2	23	Bulgaria	78.5
6	Germany	86.3	15	Denmark	84.0	24	Belgium	78.4
7	United Kingdom	86.3	16	Spain	83.1	25	Czech Rep.	76.8
8	Slovenia	86.3	17	Luxembourg	83.1	26	Romania	71.9
9	Lithuania	86.2	18	Ireland	82.7			

Table 20: Middle East and North Africa

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Israel	79.6	8	Egypt	76.3	15	Kuwait	64.5
2	Cyprus	79.2	9	Turkey	75.9	16	United Arab Em.	64.0
3	Tunisia	78.1	10	Saudi Arabia	72.8	17	Sudan	55.5
4	Armenia	77.8	11	Morocco	72.1	18	Iraq	53.9
5	Algeria	77.0	12	Lebanon	70.3	19	Yemen	49.7
6	Iran	76.9	13	Oman	70.3			
7	Jordan	76.5	14	Syria	68.2			

Table 21: Sub-Saharan Africa

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Mauritius	78.1	14	Togo	62.3	27	Mozambique	53.9
2	Gabon	77.3	15	Uganda	61.6	28	Guinea	51.3
3	Ghana	70.8	16	Swaziland	61.3	29	Djibouti	50.5
4	Namibia	70.6	17	Malawi	59.9	30	Guinea-Bissau	49.7
5	Congo	69.7	18	Eritrea	59.4	31	Dem. Rep. Congo	47.3
6	Zimbabwe	69.3	19	Ethiopia	58.8	32	Chad	45.9
7	Kenya	69.0	20	Nigeria	56.2	33	Burkina Faso	44.3
8	South Africa	69.0	21	Benin	56.1	34	Mali	44.3
9	Botswana	68.7	22	Central Afr. Rep.	56.0	35	Mauritania	44.2
10	Côte d'Ivoire	65.2	23	Zambia	55.1	36	Sierra Leone	40.0
11	Tanzania	63.9	24	Rwanda	54.9	37	Angola	39.5
12	Cameroon	63.8	25	Burundi	54.7	38	Niger	39.1
13	Senegal	62.8	26	Madagascar	54.6			

3.3. Cluster Analysis

Countries that have similar EPI scores may still have very different patterns across the 25 indicators and policy categories. To help governments identify peer countries that are similarly situated with respect to the individual indicators, a statistical procedure known as cluster analysis has been carried out (for further information, refer to the Methodology section). This process allows grouping of countries in terms of overall similarity across the 25 indicators. This process generated seven country clusters that can be useful as a way to help countries look beyond their income-level or geographic peer groups for models of environmental success in countries facing similar challenges.

Cluster 1

This cluster comprises a group of geographically disparate countries with close-to-average scores on most indicators, but relatively low scores on some indicators related to environmental health as well as biodiversity.

Cluster 2

A small, geographically diverse group, the countries in cluster two score close to the average on most indicators, but have high per-capita carbon emissions, and relatively low scores on the biodiversity indicators.

Cluster 3

Cluster three primarily consists of a group of developing and transition economies, with low scores on environmental health. However, they have scored relatively well on climate change due to the low carbon intensity of their economies.

Cluster 4

Countries in cluster four are primarily developing economies and transition economies characterized by commendable protection of natural resources, but a relatively poor performance in overall environmental health.

Cluster 5

Cluster five is a large group of countries encompassing several geographic regions and levels of development. These countries have impressive environmental health scores, but relatively low climate change scores, possibly due to the carbon-intensive electricity generation they engage in.

Cluster 6

Cluster six comprises countries that have performed very well on the environmental health indicators. These are primarily carbon-intensive economies with high particulate concentrations. They also have relatively low biodiversity scores.

Cluster 7

This cluster, like cluster five, is a large, geographically and economically diverse group of countries with high scores on environmental health indicators. They engage in low carbon-intensity electricity generation, and have relatively high scores in climate change. Their performance in other indicators is not significantly below average.

Cluster One Attributes	Countries in Cluster

QuickTime™ and a decompressor are needed to see this picture.	-Azerbaijan -Bolivia -Botswana -China -Congo -El Salvador -Gabon -Ghana -Guatemala -Honduras -Indonesia -Kyrgyzstan -Mongolia	-Myanmar -Namibia -Nepal -Nicaragua -Pakistan -Paraguay -Peru -Philippines -Romania -Sri Lanka -Tajikistan -Viet Nam -Zimbabwe

Cluster Two Attributes	Countries in Cluster	
QuickTime™ and a decompressor are needed to see this picture.	-Belize -Djibouti -Fiji	-Guyana -Solomon Islands -Swaziland

Cluster Three Attributes	Countries in Cluster	
QuickTime™ and a decompressor are needed to see this picture.	-Bangladesh -Benin -Cambodia -Côte d’Ivoire -Eritrea -Guinea -Guinea-Bissau -Haiti -India -Kenya	-Madagascar -Mauritania -Nigeria -Papua New Guinea -Senegal -Sudan -Tanzania -Togo -Yemen

Cluster Four Attributes	Countries in Cluster

QuickTime™ and a decompressor are needed to see this picture.	-Angola -Burkina Faso -Cameroon -Central African Republic -Chad -Democratic Republic of Congo -Ethiopia -Laos	-Malawi -Mali -Mozambique -Niger -Rwanda -Sierra Leone -Uganda -Zambia

Cluster Five Attributes	Countries in Cluster	
QuickTime™ and a decompressor are needed to see this picture.	-Algeria -Australia -Bosnia & Herzegovina -Cuba -Cyprus -Czech Republic -Dominican Republic -Estonia -Greece -Iran -Ireland -Israel -Jamaica	-Jordan -Macedonia -Mauritius -Mexico -Moldova -Morocco -Poland -South Africa -Taiwan -Thailand -Tunisia -Turkmenistan -United States

Cluster Six Attributes	Countries in Cluster	
QuickTime™ and a decompressor are needed to see this picture.	-Egypt -Iraq -Kazakhstan -Kuwait -Lebanon -Oman	-Saudi Arabia -Syria -Trinidad & Tobago -Ukraine -United Arab Emirates -Uzbekistan

Cluster Seven Attributes	Countries in Cluster

QuickTime™ and a
decompressor
are needed to see this picture.

-Albania
-Argentina
-Armenia
-Austria
-Belarus
-Belgium
-Brazil
-Bulgaria
-Canada
-Chile
-Colombia
-Costa Rica
-Croatia
-Denmark
-Ecuador
-Finland
-France
-Georgia
-Germany
-Hungary
-Iceland
-Italy
-Japan
-Latvia
-Lithuania
-Luxembourg
-Netherlands
-New Zealand
-Norway
-Panama
-Portugal
-Russia
-Slovakia
-Slovenia
-South Korea
-Spain
-Sweden
-Switzerland
-Turkey
-United Kingdom
-Uruguay
-Venezuela

3.4. EPI Drivers

3.4.1. GDP Per Capita

Not surprisingly, per capita GDP is correlated with higher performance on the EPI. In particular, overall EPI scores are higher in countries that have a per capita GDP of $10,000 or higher. Performance below this threshold is variable, and the higher scores associated with countries above this threshold are driven predominantly by high performances in the environmental health category.

Within the environmental health category per capita GDP shows a strong positive correlation with performance on the urban particulates, environmental burden of disease, water supply, and adequate sanitation indicators. Per capita GDP also positively correlates to performance on the water quality and supply, pesticide regulation, forest growth, burned land area, and ecological and health ozone indicators.

A strong negative relationship exists between per capita GDP and performance on the agricultural subsidies indicator, and per capita GDP is also slightly negatively correlated with performance on the agricultural intensity, marine protected areas, sulfur dioxide, and GHG emissions per capita indicators.

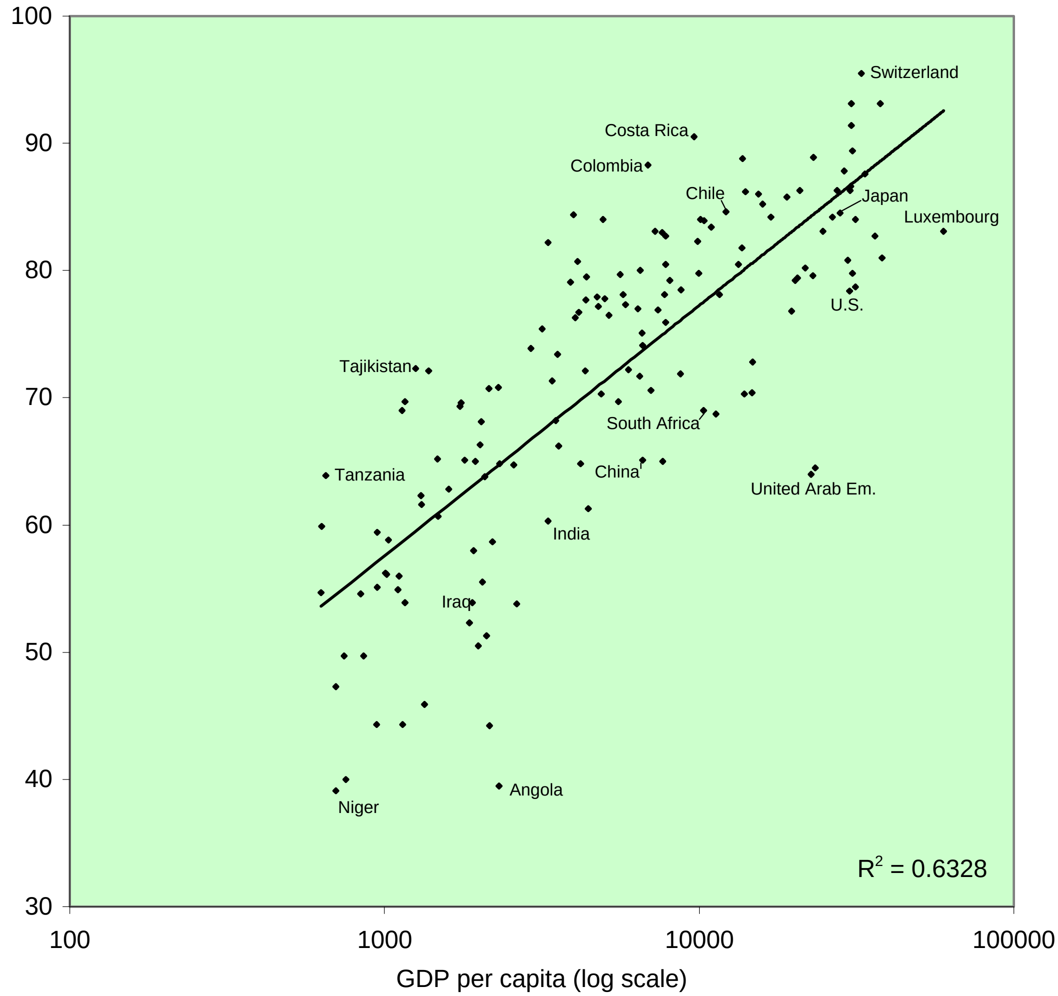

Figure 1 Relationship of 2008 EPI and GDP per capita

3.4.2. Corruption

The control of corruption measure is aggregated from a number of indicators gauging perceptions of corruption, conventionally defined as the exercise of public power for private gain (Kaufmann et al. 2007).

Environmental performance appears to be correlated with corruption. Countries with high levels of corruption tend to have low levels of environmental performance, whereas countries with low levels of corruption perform better on the EPI. This relationship is true particularly for the marine protected areas and greenhouse gas emissions per GDP indicators. Countries with low levels of corruption also correlated with lower performance on the greenhouse gas emissions per capita and water quality indicators.

Reference: Kaufmann, Daniel, Kraay, Aart and Mastruzzi, Massimo, “Governance Matters VI: Governance Indicators for 1996-2006” (July 2007). World Bank Policy Research Working Paper No. 4280 Available at SSRN: http://ssrn.com/abstract=999979

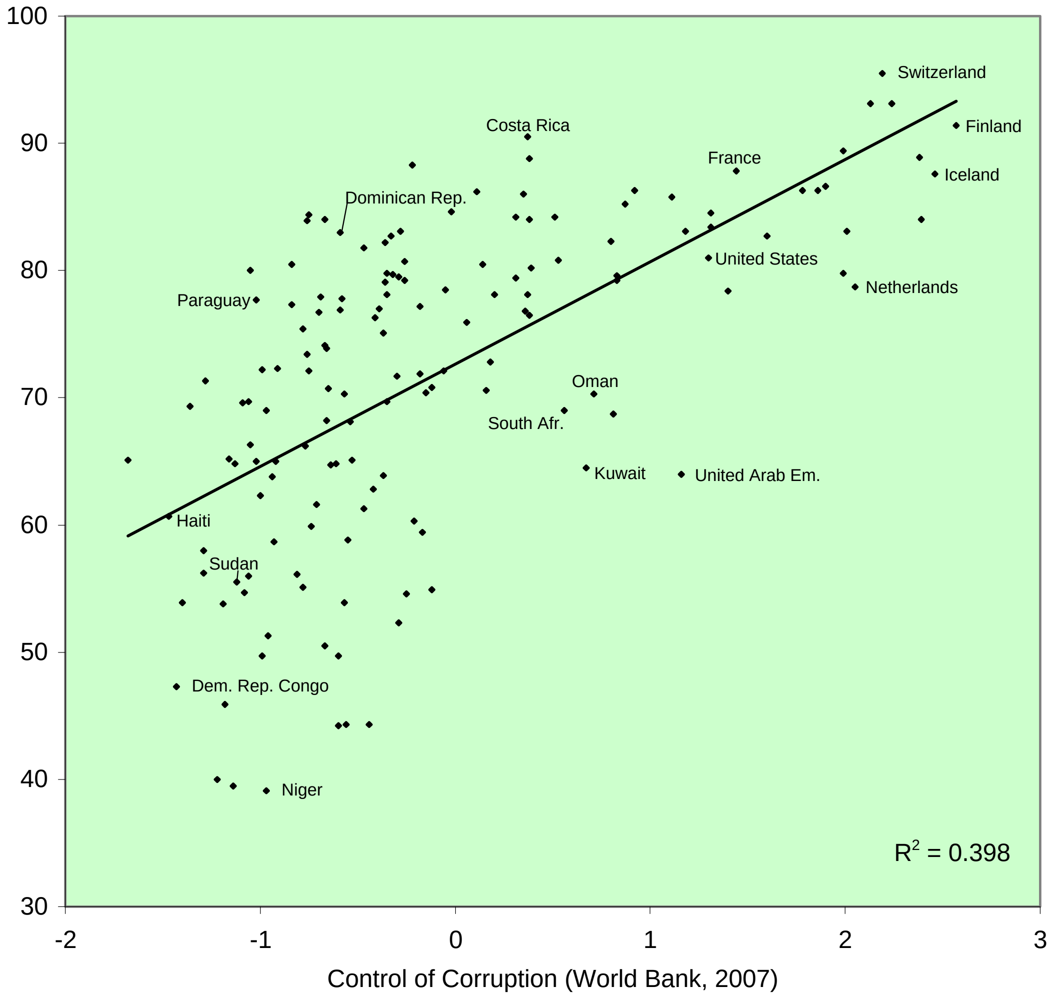

Figure 2 Relationship of 2008 EPI and Control of Corruption

3.4.3. Government Effectiveness

Government effectiveness measures the competence of the bureaucracy, the quality of policymaking, and public service delivery (Kaufmann et al. 2007).

A slight positive relationship exists between government effectiveness and EPI performance. Particularly, government effectiveness positively correlates with performance on the greenhouse gas emissions per capita, health ozone, growing stock, and water quality indicators. Government effectiveness shows a slight negative correlation with performance on the sulfur dioxide indicator.

Reference: Kaufmann, Daniel, Kraay, Aart and Mastruzzi, Massimo, “Governance Matters VI: Governance Indicators for 1996-2006” (July 2007). World Bank Policy Research Working Paper No. 4280 Available at SSRN: http://ssrn.com/abstract=999979

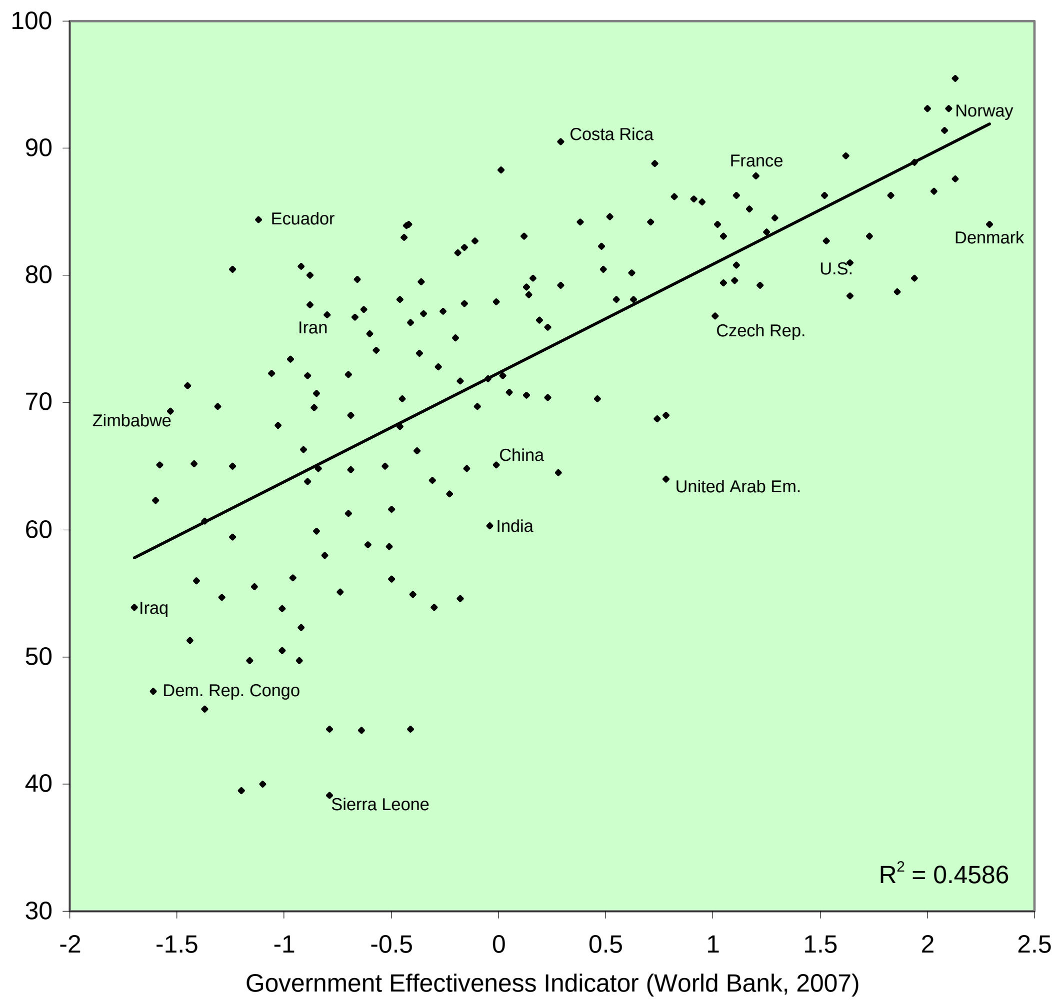

Figure 3 Relationship of 2008 EPI and Government Effectiveness

3.4.4. Voice and Accountability

Voice and Accountability measures the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media (Kaufmann et al. 2007).

There appears to be a positive correlation between environmental performance and the level of Voice and Accountability. This trend is equally strong for both Environmental Health and Ecosystem Vitality suggesting that increased public awareness and public involvement in government have positive effects on all national environmental objectives.

Reference: Kaufmann, Daniel, Kraay, Aart and Mastruzzi, Massimo, "Governance Matters VI: Governance Indicators for 1996-2006" (July 2007). World Bank Policy Research Working Paper No. 4280 Available at SSRN: http://ssrn.com/abstract=999979

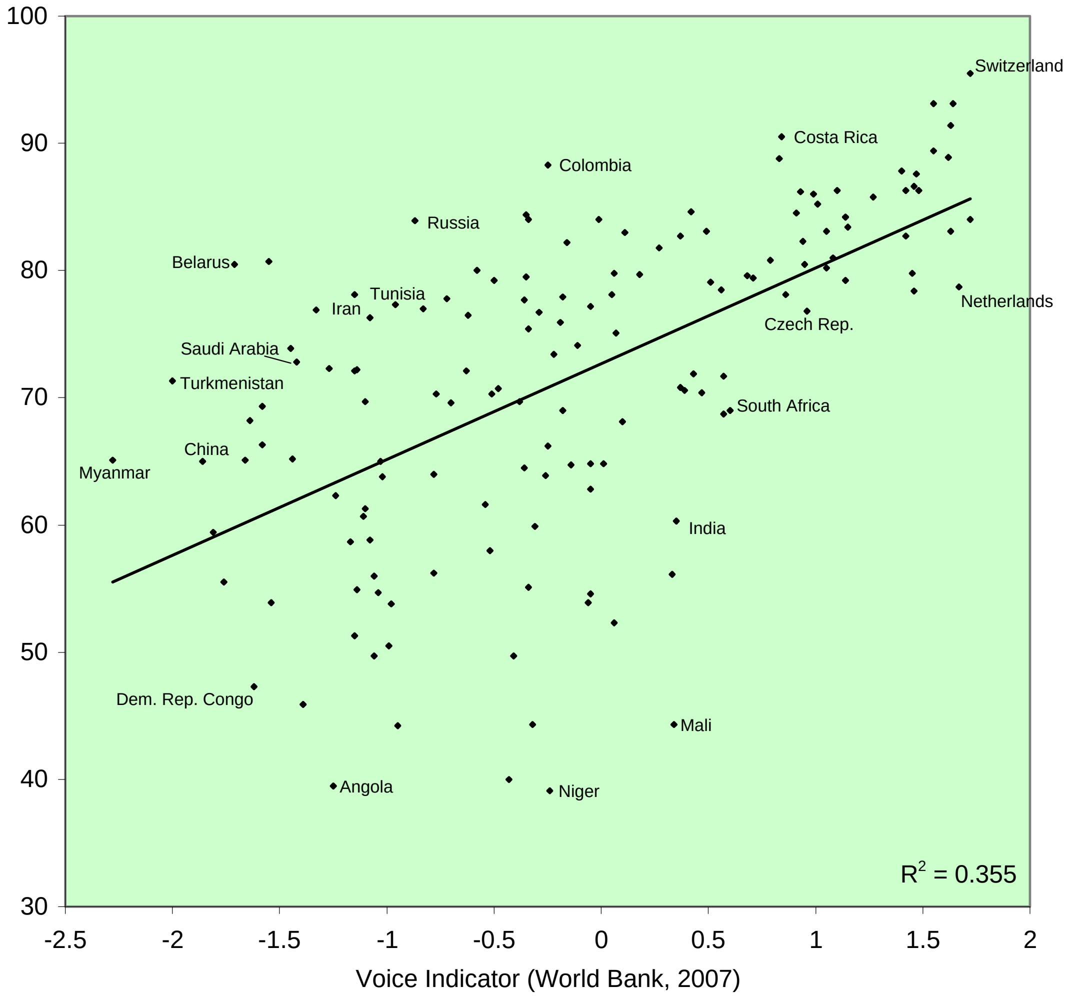

Figure 4 Relationship of 2008 EPI and Voice and Accountability

3.4.5. Competitiveness (from World Economic Forum)

Competitiveness is a comprehensive measurement of the comparative strengths and weakness of major and emerging national economies. The Competitiveness rankings of 131 countries are calculated in a Global Competitiveness Report (GCR) from both publicly available data and the Executive Opinion Survey, a comprehensive annual survey conducted by the World Economic Forum together with its network of Partner Institutes (Porter et al., 2007).

There is a strong positive relationship between competitiveness and environmental performance. Switzerland, Norway, Sweden, and Finland -- the four top-ranked countries in the 2008 EPI -- also receive superior Competitiveness scores (ranked second, sixteenth, fourth, and sixth respectively). It should be noted that although this correlation exists, competitiveness does not solely predict environmental performance. For example, even though the United States is the leader in Global Competitiveness, they are ranked thirty-ninth in the 2008 Environmental Performance Index, and perform very poorly within many aspects of the Ecosystem Vitality objective.

While Competitiveness is directly correlated with Environmental Health,
no discernible correlation exists between Competitiveness and Ecosystem Vitality. This finding is reflective of the idea that environmental health issues are directly linked to national economic strength, whereas countries' performances in the area of Ecosystem Vitality are much harder to predict.

Reference: Porter, M.E., Schwab, K. and Sala-i-Martin, X. *The Global Competitiveness Report 2007-2008*. London: Palgrave Macmillan, 2007.

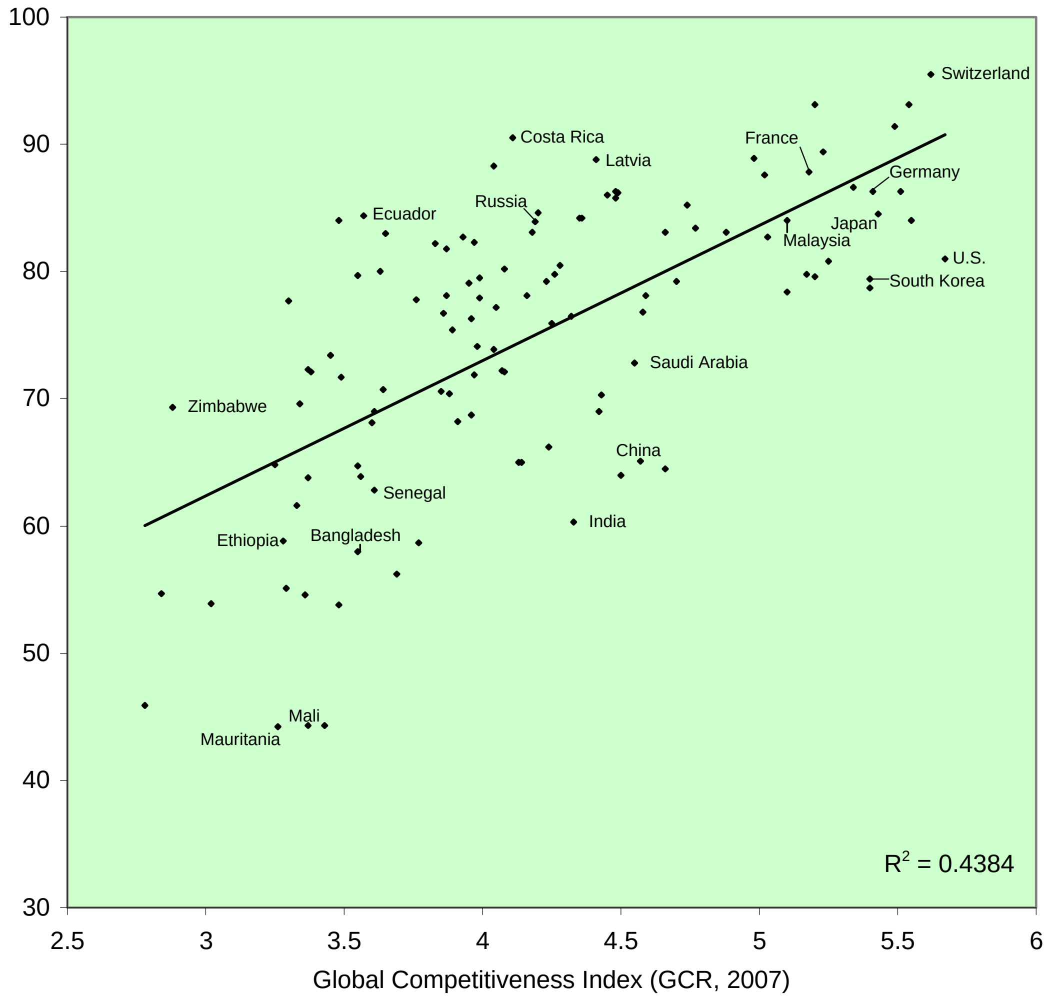

Figure 5 Relationship of 2008 EPI and Competitiveness

3.4.6. Comparison between Environmental Health and Ecosystem Vitality Scores

The overall EPI score is constructed from the scores of two policy objectives: Environmental Health and Ecosystem Vitality. As the graph below shows, the relationship between these two scores is weak. Countries with high Environmental Health scores do not necessarily score well in

Ecosystem Vitality. There are tradeoffs between spending limited budgetary funds on, for instance, controlling air pollution or protecting wild habitat.

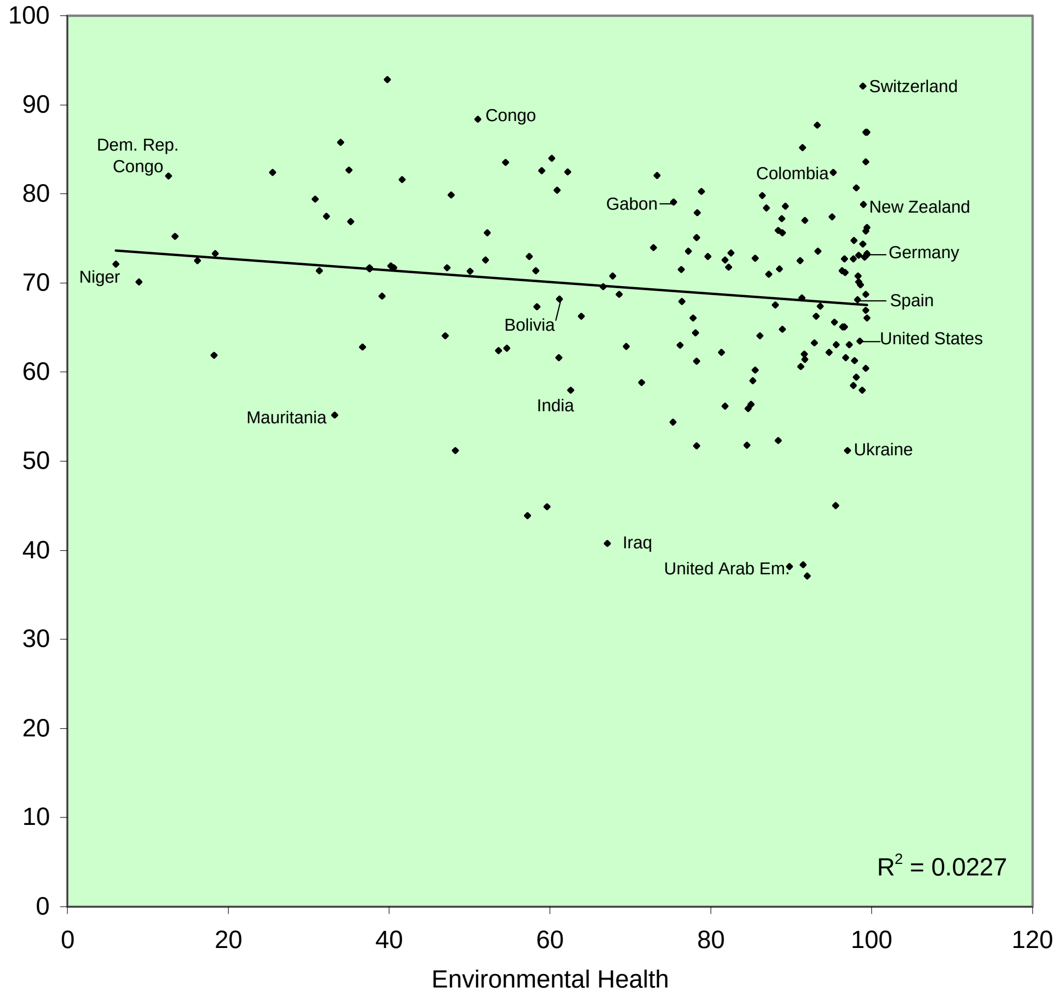

Figure 6 Relationship between Environmental Health and Ecosystem Vitality Scores

Other country statistics such as population, population density, land area, and percent of land area covered by desert are discussed further on the website: http://epi.yale.edu. These have been left out of the EPI Drivers section of the report because they have weak or no correlation with environmental performance. Indeed, the 2008 Environmental Performance Index was intentionally constructed so as to facilitate side-by-side country comparison, thus eliminating the potential effects of varying population or land area on environmental performance indicators

4. RESULTS BY POLICY CATEGORY

The EPI is not merely about comparing overall rankings or scores. The value of the exercise is derived from careful analysis of the individual policy categories and underlying indicators. This chapter presents the policy focus of each category, data availability of the indicators, and category-by-category results and conclusions. In addition to this chapter, readers may wish to refer to the white papers developed by the scientific advisors for various policy categories of the EPI. Visit http://epi.yale.edu to find these papers.

4.1 Environmental Health

Policy Focus

Environmental factors significantly impact human health, both directly and indirectly. Approximately one-quarter of the global disease burden and one-quarter of all deaths result from modifiable environmental factors (WHO 2006). It is essential to apply appropriate metrics, solid data, and careful analysis to make effective policy decisions aimed at reducing environmental stresses on human health. Policies that produce long-term health benefits require accurate and continuous tracking of all relevant environmental factors.

The inclusion of an independent Environmental Health policy category in the 2008 EPI aims to capture the effect that the environment has on quality of life globally. Reducing the environmental burden of disease is a globally recognized challenge that has been embedded in the MDGs through a variety of indicators, such as those relating to water supply, sanitation, and child mortality. However, the more complete and complex set of relationships between environmental stresses and human health has yet to be explored or combated within the realm of international policymaking. For example, the widespread and often lethal effects of indoor air pollution in developing countries have yet to be adequately addressed. Since evidence shows that environmental risk factors play a role in more than 80% of the diseases regularly reported (WHO 2006), improving environmental health should become a priority for policymakers globally.

Data Availability

Significant gaps exist in the data landscape for Environmental Health. Numerous factors contribute to this lack of data. First, environmental issues can affect human health through many different channels. Determining which factors are directly causal and which indirectly affect health is sometimes difficult. This complexity adds to the already challenging task of data collection, especially when country inclusion is a priority.

The second difficulty with Environmental Health measurement involves bridging the gap between exposure and health effects. Exposure to environmental factors does not automatically lead to consequences in human health, but the best environmental health metrics available are often measurements of environmental exposure. Empirical data on the connection between exposure and effect must be used to calculate the resulting Environmental Health impacts. Empirical connections to health aside, environmental exposure matters from a policy perspective. Exposure metrics can illustrate how a country values environmental health risks.

Compounding this problem of moving from exposure to effect is the fact that not all countries have adequate medical infrastructure. Thus, individuals exposed to environmental factors in one country may suffer greater health effects than those equally exposed in countries with more developed medical infrastructures. The ability to be properly treated for medical conditions can determine both the immediate health effects and the lasting predispositions to disease that an individual faces as a result of exposure to environmental risks. Therefore, it is not surprising that Environmental Health is correlated to wealth: those that have the resources to invest in a strong medical infrastructure will cope better with exposure to environmental stresses.

The 2008 EPI utilizes a number of different indicators to capture the yearly health burden of environmental degradation. We group these indicators according to three main environmental risk factors:

1. Environmental Burden of Disease,
2. Water (access to adequate sanitation and drinking water), and
3. Air Pollution (indoor, urban particulates, and local ozone).

Country profiles and datasets maintained by the World Health Organization (WHO) were instrumental in shaping the EH metrics.

Environmental Burden of Disease

EPI 2008 adopts a measurement of Environmental Health (EH) used by the World Health Organization (WHO). The WHO captures environmental impact on human health through a measure called the Disability Adjusted Life Year (DALY). The DALY metric adjusts the nominal number of deaths due to given environmentally-related diseases to take into account the years of life lost due to premature mortality and the loss in quality of life due to disability (morbidity). The DALY is the sum of the number of life years lost due to premature mortality caused by environmentally influenced disease and the years of healthy life lost due to disability caused by such disease.

The DALY indicator used in the 2008 EPI is an aggregate of DALY data that have been collected by the WHO. The 2008 EPI DALY indicator is an un-weighted aggregate sum of DALY data for three sources of environmental health risk: diarrhea, indoor air, and outdoor air. Thus, the DALY indicator represents EH across a range of risks. The target for DALYs is set by expert judgment at zero, reflecting the belief that no individual should face disability or death because of environmental factors.

Air Pollution (Effects on Human Health)

The WHO estimates that, of all diseases, lower respiratory tract infections are the second most attributable to environmental factors (WHO 2006). Such infections are frequently caused by air pollution. The 2008 EPI seeks to capture the health risks posed by air pollution with three indicators: Indoor Air Pollution, Urban Particulates, and Local Ozone. These indicators represent environmental risks faced by countries at both ends of the economic spectrum. Measuring both indoor and outdoor air pollution is important because countries are unequally affected by each type of risk. Because three billion people in developing countries rely on biomass, in the form of wood, charcoal, dung, and crop residue, as their cooking fuel, indoor air pollution tends to pose greater health risks in developing nations (Ezzati and Kammen 2002). Meanwhile, outdoor air pollution tends to pose more severe risks in developed nations with high levels of industrialization and urbanization. Thus, the air pollution indicators selected for use in the 2008 EPI identify environmental risks of relevance to all countries.

Urban Particulates

Particles suspended in outdoor air contribute to acute lower respiratory infections and many other non-communicable diseases, such as cancer. Lung cancer adds more to the global disease burden for all cancers than any other, and it is estimated that 5% of the lung cancer disease burden is attributable to outdoor air pollution (WHO 2006 and Cohen 2004). The 2008 EPI uses the Urban Particulates indicator to capture these risks. Urban Particulates measures the concentration of small particles, between 2.5 and 10 micrometers (PM 2.5 to PM10) in diameter, suspended in air. These particles are dangerous to human health because they are small enough to be inhaled and become lodged deep in lung tissue.

The dataset used for Urban Particulates accounts for exposure by using population-weighted PM10 concentration estimates in each country's national capital and in cities with populations over 100,000.The updated dataset from the Global Model of Ambient Particulates was provided by Kiran Pandey at the Global Environment Facility.

The target for Urban Particulates is set at an annual mean of 20 micrograms per cubic meter, which is derived from an air quality guideline set by the WHO (WHO 2005). This target is set at the level needed to minimize the risk that outdoor air pollution poses to human health. It is not feasible to set a zero target because many areas globally contain background concentrations of small airborne particles. Instead, this target expresses the objective of bringing human contributions to air pollution to a realistic minimum.

Health Ozone

Ground-level ozone causes significant health impacts, including respiratory distress and increased mortality. The target level for this category in the 2008 EPI is an ozone exposure limit of 85 parts per billion (ppb). This is based on the established United States EPA standard (EPA 2007).

Exposure ozone above the target concentration level may result in respiratory problems. Therefore, we calculated the indicator by multiplying the level of exposure that exceeded the target in any one hour by the population exposed (all values for the year 2000). Countries exceeding the target level received raw data values above zero. Since zero represented the target, a positive score in the raw data translated into a lower category score. Scores vary, however, based on the percent of population affected by exposure.

Indoor Air Pollution

Burning solid fuel indoors releases harmful chemicals and particles that present an acute health risk. These chemicals and particles can become lodged in the lungs when inhaled, leading to numerous respiratory problems including acute lower respiratory tract infections. One recent study has concluded that 4.6% of all deaths worldwide are attributable to acute lower respiratory tract infections caused by indoor fuel use (WHO 2006).

The Indoor Air indicator is a measure of the percentage of a country's inhabitants using solid fuels indoors. The 2008 EPI uses data from WHO Country Profiles on the Environmental Burden of Disease, which capture exposure to indoor smoke risks. The data are adjusted to account for reported ventilation in each measured home to best estimate actual exposure (WHO methodology annex). The target for Indoor Air is set by expert judgment at zero, which reflects the opinion that any amount of solid fuel used indoors poses a significant risk to human health and is therefore considered undesirable. Many developed countries have already achieved this target, indicating that 100% coverage is not an unrealistic expectation.

Water Pollution (Effects on Human Health)

There are sound reasons to include both a Drinking Water and an Adequate Sanitation indicator in the Environmental Health measurement. The WHO identifies diarrhea as the disease most attributable to quality of the local environment. It is estimated that environment factors account for 94% of the global disease burden for diarrhea (WHO 2006). Measures of Drinking Water and Adequate Sanitation correlate strongly with diarrheal diseases. One of the main sources of diarrheal disease is contamination by fecal-oral pathogens, which is largely caused by inadequate drinking water and sanitation infrastructure. The WHO has estimated that 88% of diarrhea cases result from the combination of unsafe drinking water, inadequate sanitation, and improper hygiene (WHO 2006 and Pruss-Ustun 2004a).

Adequate Sanitation

The 2008 EPI uses an Adequate Sanitation indicator from WHO Country Profiles on the Environmental Burden of Disease. This WHO dataset calculates the percentage of a country's population with access to an improved source of sanitation. This metric is used to estimate the environmental risk individuals face from exposure to poor sanitation. The assumption is that those with access to adequate sanitation facilities are less likely to come into contact with harm-causing bacteria and viruses than those without such facilities.

The target for the Adequate Sanitation indicator is set at 100% (derived from UN Millennium Development Goal (MDG) 7, Target 10, and Indicator 31). This target reflects the belief that every person ought to have access to basic sanitation. Many developed countries have already achieved this target, indicating that 100% coverage is not an unrealistic expectation.

Drinking Water

The 2008 EPI uses a Drinking Water indicator also from WHO Country Profiles on the Environmental Burden of Disease. The dataset used records the percentage of a country's population with access to an improved drinking water source. Although this metric does not perfectly capture the quality of water that individuals receive, it is the best available for measurement of exposure to environmental risk.

The target for the Drinking Water indicator is set at 100% (derived from UN Millennium Development Goal (MDG) 7, Target 10, and Indicator 31). This target reflects the belief that every person ought to have access to safe drinking water. Many developed countries have already achieved this target, once again indicating that 100% coverage is not an unrealistic expectation.

Results and Analysis

An overwhelming majority of the frontrunners in the overall Environmental Health category are developed, industrialized nations. In general, many countries obtain high scores: more than half received scores above 80. However scores remain highly correlated with per capita income. Nonetheless, it is important to note that some industrialized countries do have high levels of outdoor air pollution and ozone in clustered urban areas.

Industrializing countries, such as China and India, fall within the lower ranking (98th and 107th, respectively). High rates of economic growth may cause these and similar countries' rankings to shift significantly (either for the better or the worse) in future years. Countries receiving the lowest scores are Niger, Angola, the Democratic Republic of the Congo, Mali, and Burkina Faso.

Various elements contribute to poor environmental health, including political, social, economic, and infrastructural factors. Ultimately, this ranking shows that high standards of environmental health are achievable, as many countries have come extremely close to the target. The high correlation with per capita income also suggests that poorly performing countries may simply lack the resources, not the will, to provide for environmental health. Many aspects of environmental health, such as adequate sanitation, generally depend on governments providing infrastructure. The DALYs are also influenced by individual health care access. The generally high levels of performance in this category, with over 100 countries scoring above 80 on the DALYs, reflect policymakers' commitment to allocate a large percentage of national resources for human health

ECOSYSTEM VITALITY

The EPI builds on measures relevant to the goals of reducing environmental stresses on human health, which we call the Environmental Health objective. It also includes measures relevant to the goal of reducing the loss or degradation of ecosystems and natural resources – we call this the Ecosystem Vitality objective.

The core policy categories for Ecosystem Vitality include Climate Change, Air Effects on Ecosystems, Water Effects on Ecosystems, Biodiversity and Habitat, and Productive Natural Resources.

4.2. Air Pollution & Ecosystems

Policy Focus

In addition to being a danger to human health, air pollution also affects ecosystem vitality. Small reactive compounds such as ozone (O_3), benzene (C_6H_6), sulfur dioxide (SO_2), nitrogen oxides (NO_x) and volatile organic compounds (VOCs) have a range of negative environmental impacts. For example, ozone degrades plant cuticles through oxidation, inhibiting plant development and growth. SO_2 and NO_x both react with other atmospheric compounds, resulting in acid rain. Prolonged ecosystem exposure to acid rain can diminish fish stocks, decrease biological diversity in acid-sensitive lakes, degrade forests and soils, and diminish agricultural productivity.

Air pollutants are difficult to track and measure. They diffuse freely through the atmosphere and frequently react with other atmospheric chemicals. These features often obscure the sources of air emissions, which can lead to inappropriate policy recommendations. Because many of the ecosystem effects of air pollution are particularly damaging during certain seasons, policymakers must consider the seasonal patterns of air pollution.

Ideally, data for the 2008 EPI air quality metrics should come from representative sources that take both spatial and temporal variations into account and that have been collected using well-documented, scientific methods.

Data Availability

Existing data sources for global air emissions are either incomplete or difficult to use in global comparisons. Air quality monitoring systems vary significantly between countries, often producing fundamentally dissimilar data. Additionally, some countries do not have sufficient monitoring stations to produce representative data samples.

In comparison with monitoring data, air quality models are relatively easy to access. However, these models are sometimes based on contentious algorithms and lack empirical support. Uncertainty is inherent to models, making it unadvisable to rely on them exclusively. These problems can be somewhat ameliorated by utilizing models in conjunction with empirically collected data. The models simplify trends in large-scale air flows, and the results can be confirmed with empirical data in smaller-scale environments.

The 2005 World Health Organization (WHO) Air Quality Guidelines include updated data and criteria for four important air pollutants: particulate matter, ozone, nitrogen dioxide, and sulfur dioxide (WHO 2005). The US EPA has National Ambient Air Quality Standards (NAAQS) for six principal pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. A complete Air Quality index for the EPI would contain a metric for each of these compounds, in addition to other pollutants such as benzene.

However, due to significant data gaps, the 2008 EPI features only two of these pollutants as air quality metrics: ground-level ozone and sulfur dioxide. Others will be incorporated in later indices as better datasets become available.

Regional Ozone

Ozone accumulates about 15 to 50 kilometers above the surface of the Earth in a protective layer that reflects ultraviolet radiation. Ground-level accumulations of ozone, however, are dangerous to living organisms. Ozone can corrosively damage plant surfaces and irritate animal tissues. Plants can also directly absorb ozone through their pores, which can severely inhibit their functioning and growth. Thus ozone has the potential to degrade overall ecosystem health and reduce crop productivity.

The ecological ozone metric seeks to specifically assess the impact of ozone on ecosystems. Ozone's human health effects are measured separately in the environmental health category.

Our ecological ozone indicator measures the extent to which very high ozone concentrations are present during the vegetative growing season. Because ozone acutely affects plant growth and development, the growing season and daylight intensity are important factors in this metric. For the 2008 EPI we determined ozone exposure during summer daylight hours. Ozone's negative effects on plants are most acute at particularly high levels or prolonged exposures. The parameter that we chose for assessing the critical level of ozone exposure for vegetation is the Accumulated Ozone Threshold of 40 parts per billion (ppb). Our target comes from the International Cooperative Programme on Effects of Air Pollution on Natural Vegetation and Crops and stipulates that long-term ozone exposure should not exceed 3000 ppb-hours over the three-month summer period (Mauzerall and Wong 2001). The 3000 ppb-hour figure is calculated by summing the ppb exposures for all hours that exceed the minimal 40 ppb threshold. For example, an hour of 50 ppb exposure and another hour of 40 ppb exposure sum to 90 "ppb-hours."

Sulfur Dioxide Emissions

Sulfur dioxide is the major cause of acid rain, a well-publicized phenomenon that degrades trees, crops, water, soil, and buildings and monuments. SO_2 can also increase the level of inhalable particulates if it undergoes certain atmospheric reactions.

The sulfur dioxide indicator included in the 2008 EPI is based on estimates of emissions compiled by the Netherlands Environment Assessment Agency's Emission Database for Global Atmospheric Research (EDGAR). This database contains global emissions inventories of greenhouse gases from anthropogenic sources measured in the year 2000.

There are no internationally agreed standards for sulfur dioxide emissions, and the development of uniform sulfur dioxide emissions targets is controversial for several reasons. First, local concentrations of sulfur dioxide can still be high in areas with uniform emissions, because migration of sulfur dioxide from outside sources can significantly influence local pollution levels. Second, different ecosystems have different tolerance thresholds to sulfur dioxide. Consequently, a given uniform emissions target can be too stringent for some localities while too lax for others. After consulting with experts on this issue, our target for the 2008 EPI is simply and uniformly 0 sulfur dioxide emissions.

Results and Analysis

Small and lesser-developed countries received the highest scores in this category, which is correlated with their low levels of industrial pollution. However, proximity to target was generally high in this category, with 130 nations scoring above 80 points. High performance overall magnifies the low performance of countries at the bottom of the ranking, such as China and the United States, which both received scores below 45.

One of the primary conclusions that can be drawn from the sulfur dioxide ranking is that among developed nations, the European Union has set and kept much more ambitious sulfur dioxide reduction targets than its economic peers. The United States hasn't revised its sulfur dioxide targets since 1990, which is consistent with its poor score.

The ecological ozone rankings are much less straightforward than the sulfur dioxide rankings. Ground-level ozone concentrations are a function of various factors including elevation, meteorological conditions, industrial emissions, and biomass burning. One example of how this complexity can impact rank is the performance of countries in Central Africa. These countries perform poorly despite having low industrial emissions because of their high levels of biomass burning. Furthermore, certain regions may accumulate high ozone levels if they're located in geologic basins that collect emissions from neighboring regions.

Blueprint for Future Measurement

Both indicators in this section have methodological issues that need to be resolved. For example, the question of whether to use daily averages or hourly maximums of pollutant concentrations is still unresolved, and may vary depending on the pollutant in question. Whether or not to weight data by population is another debatable question that lacks a definitive answer. In terms of sulfur dioxide emissions specifically, in future editions of the EPI we would prefer to look at concentrations relative to the buffering capacity of specific ecosystems. Different environments have varying degrees of ecological resistance to sulfur dioxide, but there is no data currently available that reflects this.

Ecological ozone and sulfur dioxide emissions are important indicators of air quality but do not give a complete picture of the ecosystem effects of air pollution. Several other hazardous pollutants such as nitrogen oxides should ideally be tracked using similar global metrics. Like sulfur dioxide, they are known to react with volatile atmospheric compounds to produce smog and acid rain. However, they were excluded in the 2008 EPI due to insufficient data.

In addition to the need for global datasets on a wider range of air pollutants, modeling systems and methods for integrating empirical and modeled data need improvement. The benefit of models is that they are able to generate values for large spatial domains. Due to the lack of empirical backing, however, the use of purely modeled values is still controversial. More research on effectively combining empirically collected data from air monitoring facilities with model-generated data is needed within the field.

An ideal performance measure for air pollution would include emissions quantities, the mapping of pollutant movement, the ecological sensitivity to pollutants by area, and level of clear policy commitments to emissions reduction. The European Union can be upheld as a model in this regard because it actually meets all of these monitoring goals. However, there are no global datasets with all of these measures, so it is currently impossible to be as precise as we would like.

4.3 Water Pollution & Ecosystems

Policy Focus

Water is vital to the survival of ecosystems. In turn, ecosystems help regulate the quantity and quality of water necessary for the survival of all species. Policies that ensure water quality are critical for numerous reasons, including the need to protect aquatic biodiversity and drinking water sources. The development of a composite index of water quantity and water quality will allow for assessment of the overall adequacy of inland surface water resources for aquatic ecosystem health. There are currently no internationally recognized targets for pollutant concentrations in water supplies that are designed to protect either human or ecosystem health. Nor are there globally uniform standards for the unsustainable extraction of water resources from surface or ground water sources for economic activities or human needs. These two areas, called water quality and water stress, are in dire need of greater international policy attention. This section of the EPI focuses on the ecological aspects of these critical water issues.

Increasing demands to supply water for domestic, agricultural, and/or industrial use to a growing population has extensively modified inland waters (UNEP GEMS/Water 2006), leading to habitat and biodiversity loss, pollution, the introduction of invasive species, and the construction of dams and levees (which themselves impact water quality). The monitoring of water quality on a global basis is essential to the identification of areas with declining water quality and to the establishment of successful best practices.

Data Availability

Water issues are, by nature, interdisciplinary and multi-faceted. No single index can provide comprehensive information about water availability, use, quality, and equity. The 2008 EPI contains two indicators, one for Water Quality based on data for the five commonly evaluated water quality factors (dissolved oxygen, pH, conductivity, and the nutrients nitrogen and phosphorus), and one for Water Stress based on oversubscription of water resources.

The availability, quality, and regional resolution and dissemination of water data all have serious limitations. Aggregating different measures into a single metric is attractive, but single aggregate measures can be misleading and uninformative. Composite metrics are more valuable and flexible, allowing different kinds of comparisons to be made at different regional scales.

Comprehensive water-use data are particularly hard to find. For example, in regions where water is shared internationally, nations are tempted to restrict information when there is a perceived political advantage in doing so. We have previously commented on this problem (Gleick 2000), and believe that open sharing of water data is critical for proper and effective water planning and management. Further, the development of informative, comprehensive metrics is not possible unless data are collected and shared. Last, some water uses or needs are currently unquantified or unquantifiable. Nevertheless, these water uses and activities will eventually need to be quantified if they are to be included in measures of water quality and overall availability. Excluding them from analysis would mean excluding critical factors related to human and ecological well-being.

Water Quality

Many different physical, chemical, and biological parameters can be used to measure water quality. The water quality parameters chosen for the 2008 EPI, which are from the Water Quality Index (WATQI), were selected for two reasons. First, they are good indicators of specific issues relevant on a global basis (eutrophication, nutrient pollution, acidification, and salinization). Second, they are the most consistently reported.

The United Nations GEMS/Water Programme maintains the only global database of water quality for inland waters. GEMStat is the online global database of water quality maintained by GEMS/Water that has almost 4 million entries for lakes, reservoirs, rivers, and groundwater systems from more than 3,000 monitoring stations. While the GEMS/Water database is the most comprehensive global database of water quality, there are still gaps in country coverage.

Five water quality parameters were chosen for the 2008 EPI: Dissolved oxygen, pH, Conductivity, Total nitrogen, and Total phosphorus. Dissolved oxygen is the measure of free (i.e., not chemically combined) oxygen dissolved in water. It is essential to the metabolism of all aerobic aquatic organisms and at reduced levels has been shown to cause both lethal and sublethal effects. The measure of the acidity or alkalinity of a water vody, pH, is an important parameter of water quality in inland waters in that it can affect aquatic organisms both directly through impairing respiration, growth and development of fish, and indirectly, through increasing the bioavailability of certain metals such as aluminum and nickel. Conductivity is a measure of the ability of water to carry an electric current, which is dependent on the presence of ions. Increases in conductivity can lead to ecosystem changes that reduce biodiversity and alter community composition. (Weber-Scannell and Duffy, 2007). Nitrogen and phosphorus are naturally-occurring elements essential for all living organisms and are often found in growth-limiting concentrations in aquatic environments. Increases in nitrogen and/or phosphorus in natural waters, largely as a result of human activities in the drainage basin (e.g., from agricultural runoff from manure and synthetic fertilizers or from municipal and industrial wastewater discharge), can result in increased biological productivity of a water body.

The Water Quality indicator is a proximity-to-target composite of water quality, adjusted for monitoring stations' density in each country, with the maximum score of 100. Data were available to compute indicator values for 94 countries. For countries where no values could be computed using available data, a regional imputed value was used. Water Quality was imputed for a total of 138 countries.

Water Stress

Water Stress is calculated as the percentage of a country's territory affected by oversubscription of water resources. The 2008 EPI utilizes data from the University of New Hampshire's Water Systems Analysis Group. The target for each country is to have no area of their territory affected by oversubscription. Water use is represented by local demands summed by domestic, industrial, and agricultural water withdrawals and then divided by available water supply to yield an index of local relative water use. A high degree of oversubscription is indicated when the water use is more than 40% of available supply (WMO, 1997).

Results and Analysis

New Zealand, Finland, Lithuania, Latvia, and Slovenia have the highest ranking water quality among the 149 countries examined, with index scores ranging from 96 to 99. By comparison, the countries with the lowest ranking water quality included Kuwait, Yemen, Syria, Saudi Arabia, and United Arab Emirates, all with scores of zero.

The majority of top-ranked nations are European, although the highest-ranked New Zealand is an exception. Many of these countries have numerous data collection locations and/or enhanced awareness of, and cooperation on, water quality protection. In the middle of the pack, along with Indonesia and Myanmar, are the United States, the Netherlands, France, and China. Note, however, that much of the surface water in some countries, such as the Netherlands, is derived from upstream countries; the poor water quality detected in the Netherlands is at least in part due to pressures placed on water quality outside of the country's borders. In others, intensive industrial sectors negatively affect water quality. Many of the countries with the lowest rankings are geographically located in arid regions or suffer from conflict or other such stresses. Some of these countries lack sufficient data, while others, with all five data points reported, simply suffer from dismal water quality due to factors such as poor management and lack of sanitation or pollution mitigation systems.

Forty-two countries meet the target set by the Water Stress indicator, including many Central American and northern European nations, as well as some African nations. Many other nations come very close to meeting the 100 score, including Russia and numerous Asian and western European countries such as the Philippines, Viet Nam, France, and the United Kingdom. The United States, China, and the Netherlands have scores in the seventies, along with Djibouti, Zimbabwe, and Iraq.

Overall, arid and semi-arid countries perform poorly. The percent of territory that is oversubscribed is in these regions at least in part determined by climatic factors and natural endowments, with many arid countries showing more than 50% of their territories oversubscribed. Yemen, Armenia, Jordan, Israel, and Kuwait rank the lowest in this category, with a wide spread from zero (Kuwait) to 38 (Yemen). Other countries with low rankings include Australia, Belgium, Spain, India, and numerous African nations. Also, densely settled or agricultural exporting countries also show high levels of deposition due to high-input agriculture.

These include Mexico, China, Australia, the United States, and Argentina. Water use in the agricultural sector is the most significant factor contributing to oversubscription.

Finland, New Zealand, Latvia, Slovenia, and Sweden, along with other more-industrialized northeastern European nations, have the highest combined water rankings, with scores ranging from 94 to almost 99. Uruguay, Laos, Croatia, Canada, and the United Kingdom also rank high, as did island nations such as Indonesia, Japan, and Fiji. Some of these nations have ample and/or extremely pristine water reserves. Others have strong water quality protection programs in place, are located in non-arid regions, or have low population density.

The United States ranks 57th, in close company with Cuba, Russia, Kenya, China, and Venezuela. Many of the lower ranked nations are those in arid or conflict-riddled regions, including Jordan, Armenia, Iraq, Israel, and Côte d'Ivoire. Some of the lower rankings are also due to intensive agriculture or resource extraction processes, or simply to the lack of available data, such as the case with Kuwait.

Blueprint for Future Measurement

EPI 2008 provides a valuable snapshot of surface water issues for the countries for which data were available. However, the obvious lesson learned is the need for improvement in data scope, availability, reliability, and quality for indicators of Water Quality and Water Stress. Recent data from additional countries for all of the parameters included here are needed to better track and rank environmental performance as it relates to water quality and quantity on a global scale.

Increased global demand for fresh water will make achieving targets for the two water indicators increasingly difficult. Non-water policy pressures – air pollution, land management, poverty alleviation measures, etc. – can greatly affect many aspects of water quality and quantity, thus making the prioritization of water resource protection and management a prerequisite to the success of these exogenous development efforts. As populations and demands on water resources continue to grow globally, countries must implement serious reforms to both water policy and exogenous policies that affect water.

Growing demand for freshwater availability, in conjunction with the global push to meet the UN Millennium Development Goals for hunger, water, and sanitation, suggests that the target of zero percent oversubscribed territory will be difficult if not impossible to meet. However, continued over-abstraction (and particularly abstraction of fossil ground water) cannot be sustained indefinitely. More effective measuring, reporting, and tracking of global water quality and quantity, on a country-by-country basis, must occur in order to better inform policymaking and international efforts toward sustainably meeting the Millennium Development Goals and the basic needs of all species.

4.4 Biodiversity & Habitat

Policy Focus

Human activities have altered the world's terrestrial, freshwater and marine ecosystems throughout history, but in the last 50 years the extent and pace of these changes has soared, resulting in what the Millennium Ecosystem Assessment calls "a substantial and largely irreversible loss in the diversity of life on Earth" (Millennium Ecosystem Assessment, 2005). The number of species at risk of extinction – 16,306 species of plants and animals listed as threatened globally – clearly reflects this loss of diversity. Biodiversity – plants, animals, microorganisms and the ecological processes that interconnect them – forms the planet's natural productivity. Protecting biodiversity ensures a that wide range of "ecosystem services" like flood control and soil renewal, the production of commodities such as food and new medicines, and finally, spiritual and aesthetic fulfillment, will remain available for current and future generations.

Conventional management approaches have focused on individual resources, such as timber or fish production, rather than on ecosystems as a whole. Metrics to measure performance have similarly been limited to simple output quantities (e.g., metric tons of fish caught). Recently policy goals have shifted away from this sectoral approach to managing natural resources. The result has been additional legislation aimed at maintaining the health and integrity of entire ecosystems, known as the "ecosystem approach." In addition to measuring the protection of highly endangered species, the 2008 EPI uses indicators that measure large-scale habitat conversion and the effective protected area conservation of terrestrial and aquatic ecosystems as a whole.

Data Availability

Global information about the distribution of biodiversity, the condition of species and natural ecosystems, and the major stresses to ecosystems is not readily accessible. Existing information tends to be locally focused, inconsistently formatted across studies, and dispersed across many scientific publications and databases. Moreover, because of disparities in data quality and availability by country, comparisons of biodiversity conservation on a global level often rely on data obtained through remote sensing. Many countries collect more detailed national-level data, however it generally is not suitable for the purposes of a global comparison. In response to this problem, some regions, such as the European Union, have begun establishing standards and protocols for biodiversity data collection. However even among countries participating in these efforts, significant information gaps remain. Because of these data gaps, the 2008 EPI biodiversity indicators are based on remotely-sensed data.

A consequence of the types of data available is that currently most indicators must measure biodiversity indirectly. The majority of viable indicators reflect stresses on ecosystems rather that actual measures of ecosystem condition. Similarly, available indicators tend to demonstrate threats to individual species rather than long-term population trends.

Data quality and availability also vary by ecosystem. For example, more information is available for assessing terrestrial ecosystems and resources than aquatic ones. A lack of viable aquatic indicators is especially pronounced for freshwater systems. Data availability and indicator development also vary by the level of biodiversity observed. Specifically, spatial and empirical data exist for indicators that measure biodiversity on the habitat level, but indicators of species and genetic diversity are more limited in scope. Consequently, the 2008 EPI emphasizes habitat protection instead of species or genetic conservation.

Conservation Risk Index

Human activity has dramatically changed the global landscape. Human use has converted approximately 21.8% of the world's land area (Hoekstra *et al.* 2005). However, rates of land conversion have not affected all biomes equally. While tropical dry forests and temperate grasslands have experienced dramatic levels of conversion, tundra and boreal forests remain largely untouched (Hoekstra *et al.* 2005). The Conservation Risk Index (CRI) compares the area of each terrestrial biome in a country that has been converted to other land uses (e.g., for example conversion from forests to cropland) to the area of each biome that is under protection. This indicator represents a more comprehensive measure of whether countries protect their natural environments on the same spatial scale as the habitats being converted.

The CRI provides a ratio of converted lands to protected lands for each terrestrial biome within a country. It is also based on two 1-kilometer global spatial datasets: the World Database on Protected Areas 2007 (WDPA 2007), which reports the location and distribution of protected areas, and the Global Land Cover 2000 (GLC 2000), which compares the areas of natural habitat converted to human uses to those not converted. Percent area converted is calculated by comparing land area classified as "cultivated," "managed," or "under artificial surfaces" versus unconverted land area as reported in the GLC 2000. Our target is the global average of 1:2 (protected: converted) per terrestrial biome within a country. Sixteen biomes are included in the conservation risk index. Performance is capped at 50% protection by area for each biome, to ensure that the above-target performance of a country in one biome does not mask its below-target performance in another.

Effective Protected Area Conservation

Establishing protected areas has been a leading and widespread terrestrial ecosystem conservation strategy for decades. As a result, data on the location and extent of protected areas is some of the most consistent data across countries. Signatories to the Convention on Biological Diversity (CBD) agreed to a policy target of protecting 10% of terrestrial, freshwater, and marine habitats within each country. However, despite increases in designation of protected areas, species extinction and ecosystem function loss continue. This is primarily because counties designate protected areas in response to international pressure, but fail to enforce status or properly manage protected areas. In order to avoid rewarding the creation of these "paper parks," the effective protected area conservation index assesses both the quantity (area) and quality of protected areas.

The effective protected area conservation index assigns points for each terrestrial biome, or type of habitat, protected within a country. This index was calculated by spatially overlaying two 1-kilometer grid spatial datasets: the World Database on Protected Areas (2007) and the Wildlife Conservation Society Human Influence Index (also called the Human Footprint). By combining these global datasets, the index measures how much habitat within protected areas is actually intact or relatively intact. We consider areas within a designated protected area that have a high human footprint (incompatible with biodiversity) to be unprotected, despite their status on paper. Based on the target set by the CBD, our target is 10% protection of each terrestrial biome within a country. Sixteen biomes are included in the indicator. In order to ensure that the above target performance for a country in one biome does not mask the below-target performance for the country in another, we capped the maximum performance at 10% protection by area for each biome.

Critical Habitat Protection

Indices that investigate species conservation by country can be difficult to develop. This is partly due to the fact that for countries with larger natural endowments, there are greater conservation burdens both in terms of absolute numbers and percentages of total species to protect. Moreover, species are assessed as threatened on the basis of their global conservation status. This means that even if a country takes extensive measures to protect a species in its own territory, it might still rank poorly on an index that looks at the percentage of globally endangered species. This indicator is designed to provide rigorous insight into the protection of highly endangered species on an international level. It catalogs whether countries provide critical habitat protection for species identified as endangered by the Alliance for Zero Extinction (AZE).

The Alliance for Zero Extinction is a joint initiative of 52 biodiversity conservation organizations. It aims to prevent extinctions by identifying and safeguarding key sites selected as the remaining refuges of one or more Endangered or Critically Endangered species, as identified by the IUCN Red List criteria. The IUCN standard provides a consistent approach for AZE site designation across the world. Because of the rigorous criteria used to assign AZE sites, this indicator provides a good measure of how many gravely endangered species are receiving immediate conservation protection. Our target is the protection of 100% of sites, with the justification that there are a finite number of sites and the species in question are highly endangered. Countries with no AZE sites on their territories have total scores averaged around this indicator.

Marine Protected Areas

Marine Protected Areas (MPAs) are the aquatic equivalent of terrestrial reserves. They are legally set aside for protection from human disturbances, such as fishing, industrial exploitation, and recreational activities (depending on the type of MPA). They help alleviate fishing mortality, reduce the harvesting of non-target species, and ensure fishing gear does not impact habitat. In addition to protecting biodiversity, MPAs aid in the restoration of commercially viable fish species.

The Marine Protected Areas (MPA) indicator measures the fraction of a country's exclusive economic zone (EEZ) it protects. Protected area criteria were taken from MPA Global, a database developed in conjunction with the Sea Around Us Project. The indicator was calculated by comparing the area of MPA (km^2) to the country's total area of EEZ, as reported in the Global Maritime Boundaries database. Our target is the protection of 10% of EEZ waters, in accordance with the goals set by the Convention on Biological Diversity. Land-locked countries with no EEZ territory have scores averaged around this indicator (see methodology for a full discussion of weighting).

Results and Analysis

Southern and Central Africa are well represented among biodiversity leaders, with the Central African Republic, Botswana, Zambia, Congo, Zimbabwe, and Malawi all among the top ten nations. Many of the lowest performers are small island nations; 18 of the 23 Alliance of Small Island States (AOSIS) nations included in the Biodiversity & Habitat subcategory score below 50. Another 16 AOSIS nations lack data and could not be included. These low scores can partly be attributed to poor remote-sensing data resolution, which can lead to an appearance of low performance. However, many of these small island nations are legitimately poor performers. Islands are known to frequently harbor high concentrations of unique species. At the same time, human habitation can place more extreme resource and habitat pressures per unit land area on small islands.

Only 8 countries are at the target level for effective protected area conservation, many of which have large tracts of sparsely-inhabited land (e.g. Greenland, Saudi Arabia). In general, large countries perform well on effective protected area conservation, with Greenland, Saudi Arabia, the United States, Brazil, Russia, Australia, and Canada all earning scores of 70 or higher. Effective protected area conservation and the conservation risk index (CRI) are loosely correlated, although considerably more countries (38) meet the CRI target. Overall performance is higher in CRI because, unlike the effective protected area conservation index, it does not penalize insufficient protection of target biomes. Exceptions include some developed countries such as the United States and New Zealand, which long ago converted the vast majority of their highly productive biomes (for example grasslands), but now effectively conserve the remainder.

Performance on the critical habitat protection index is unrelated to either effective protected are conservation or CRI. A large percentage of AZE sites occur in the Caribbean and Central and South America, but of these countries only Costa Rica, Montserrat, the Dominican Republic and Venezuela protect above 50% of their sites. Guatemala is a notable underperformer in the region, protecting none of its 10 sites. Throughout the world other notable examples include Tanzania, protecting 8 of 9 sites, and Indonesia, which only fully protects 2 of its 29 sites.

Only 5 countries – Jordan, Ecuador, the Dominican Republic, Cameroon, and Germany, protect the target of 10% of their EEZ waters, and only 9 countries earn scores of above 50. This low performance may represent slower trends to prioritize marine habitat.

Blueprint for Future Measurement

Achieving fine-scale resolution is a problem for data acquired by remote sensing techniques, particularly when assessing small islands and countries. Poor data resolution can lead to an effective absence of data and, even when data is available, small spatial errors can translate to large percentages of areas in question and thus skewed results. We envision that future EPI measurements may be able to take advantage of a new, global, finer-resolution dataset that is currently in development – the GLOBCOVER project. GLOBCOVER uses 300m MERIS (Medium Resolution Imaging Spectrometer Instrument) data, which will provide almost 10 times more information than previous datasets.

Even more important than increasing spatial resolution is increasing database continuity over time. Currently, no two global land cover datasets from different time periods can be confidently compared. The ability to identify land cover and land use trends from remotely sensed data in a timely manner is key to tracking performance. For example, many areas have been deforested in the past but are now relatively stable (e.g., the southern Brazilian Atlantic Forests), while others are undergoing rapid change (e.g., Borneo). Data from the satellite-based MODIS sensor is now being examined for temporal patterns, but so far it has only been processed for forests. The ability to confidently compare data from different time points is the single most important methodological issue for the development of future global biodiversity metrics.

Developing metrics to apply the effective protected area conservation index and the conservation risk index to freshwater ecosystems is also strongly recommended. Basic information on the distribution and health of different aquatic biomes, such as salt marshes, seagrass beds, headwater streams, and wetlands, is still missing. Additionally, there are no agreed upon targets of what level of “intactness” of freshwater systems is sustainable or sufficient. The lack of data and performance targets in freshwater and marine ecosystems limits the use of this and similar indicators within the EPI.

Other indicators that are currently being developed and used to monitor progress towards the Convention on Biological Diversity’s 2010 Targets show promise, as they can be applied on both global and national levels. These include the Living Planet Index developed by World Wide Fund for Nature (WWF) and the Zoological Society of London (ZSL), and the Red List Index developed by The World Conservation Union (IUCN) and ZSL. The Living Planet Index looks at trends in the abundance of vertebrate species from the terrestrial, freshwater, and marine realms. The Living Planet Index also has the potential to look at trends in subsets of the vertebrate population, such as migratory species, those dependent on a particular ecosystem, or those impacted by different land uses. The IUCN Red List Index measures the changing state of global biodiversity. It has been calculated for birds, amphibians, and mammals and can help track progress in averting species’ extinction risk. Some countries have begun to adapt these indices for national assessments, and it is possible that they could be incorporated in future editions of the EPI.

4.5 Productive Natural Resources

This policy category is divided into three subcategories: Agriculture, Fisheries, and Forestry. Each of these three sectors faces a set of unique management challenges, often stemming from excessive resource demand, waste, or damaging methods of exploitation.

4.5.1 Forestry

Policy Focus

Forests cover almost 30% of the Earth’s terrestrial surface (FAO 2006). They harbor much of the world’s biodiversity, provide invaluable ecosystem services such as the production of atmospheric oxygen, and are a major productive resource for commodities ranging from traditional medicines and food to wood and paper. In certain regions, forested areas are being cleared at very high rates. The highest rates of deforestation are occurring in the tropics of Southeast Asia, South America, and Africa. Forest planting, the natural expansion of forests, and landscape restoration are only partially offsetting these losses. Most recently, forests have taken on a critical role in discussions about climate change. Because forests store carbon dioxide in their biomass and soils, current deforestation trends are now contributing to approximately one fifth of total annual global carbon emissions (IPCC, 2007). Forest management policies must balance environmental concerns with commercial activities. One of the major barriers to establishing sustainable forest practices is the lack of long-term monitoring systems to regularly assess the performance and condition of forests. Even when the scope is limited only to commercial wood production, experts have struggled for many decades to develop cost-effective methods for measuring forest resources and products. The forestry metric included in the 2008 EPI is meant to be a starting point for measuring forest management on an international scale. Its inclusion highlights the importance of forests as a global resource as well as the need for more robust international monitoring efforts.

Data Availability

Currently only 10% of the world's forested area has been assessed by field-based National Forest Inventories, which is the primary source of national-level forest data (Holmgren 2007). One of the standard measures of existing forest conditions is the calculation of "growing stock." This value is defined as a forest's standing volume of wood biomass of trees above a certain size (thus excluding the youngest and smallest trees).

The only source of country-by-country data for growing stock is the Global Forest Resources Assessment (GFRA), most recently conducted in 2005 (FAO 2006a). Even though other sources of regional growing stock data exist, the advantage of the GFRA is that it provides a consistent reporting format across countries and is recognized as the main global reporting process. It also provides the only global datasets for the value of both wood and non-wood forest products. No global data sets exist for the value of ecosystem services provided by forests. Within the GFRA, there are significant variations in data quality between countries due to differences in data collection methodology or differences in the frequency of measurements. One of the fundamental inconsistencies is that countries are allowed to choose what they consider to be a minimum tree size for inclusion in the growing stock measure. Countries also individually establish the height to which they calculate the volume and branch size they wish to include in this metric. Beyond these inconsistencies, some countries simply lack the resources to conduct regular forest surveys. In fact, only around 50 nations have field-based inventories; the rest use satellite data or expert estimates. Despite the shortcomings of the data, the "growing stock" calculation of the GFRA is the only global dataset of reasonable quality to include in the 2008 EPI forest indicator.

Though there are many areas of concern when measuring the sustainability of forest management, the core issue is whether forests are being cut at a faster rate than they are regrowing. There are many different potential variables that could go into an indicator measuring forest sustainability. The United Nations Forum on Forests has outlined seven such principal areas of concern, which are also the key foci in the UN Food and Agriculture Organization's Global Forest Resources Assessment (GFRA). A much more extensive list of over 400 sustainability variables, crafted as an extension of the Pan-European Criteria and Indicators for Sustainable Forest Management, is used as a foundation by the Ministerial Conference on the Protection of Forests in Europe (MCPFE, 2007).

While capturing these variables in a forest management indicator would be ideal, only a handful of countries have sufficiently developed forest monitoring systems to produce meaningful reports on these criteria. As such, they are currently not usable for the purposes of a global, standardized assessment of performance. Having considered the limitations of global datasets, the only metric consistently available for reliable use in the 2008 EPI is the GFRA growing stock measure. Therefore the environmental performance of a country's forestry sector is measured by a change in growing stock, represented as the Growing Stock Change indicator.

Growing Stock

Growing stock is defined as the standing volume of the trees in a forest above a certain minimum size. Higher growing stock signifies more standing biomass, which often translates to better forest conditions. But it is important to note that standing tree volume alone is not a sufficient metric for detailed analysis of forest health. For example, future wood supply is highly dependent on the diversity and distribution of tree species and ages within tree stands. These are also critical parameters for maintaining biodiversity. If carbon sequestration is the major question of interest, the amount of carbon sequestered in the soil must also be examined, which may not be directly correlated to a forest's tree volume. Another specific objection to using growing stock can be that converting primary forests to forest plantations may increase tree volume, but degrade overall ecological conditions. It is also uncertain whether plantations actually match natural forests with equal tree volume. Furthermore, the value of plantations varies significantly depending on how wood is valued relative to biodiversity in the local context. For the purposes of target selection in this metric, it is assumed that an increase in growing stock indicates improving forest conditions while a decrease in growing stock indicates degrading forest conditions. The 2008 EPI target is zero change in growing stock as calculated by FAO in the years 2000-2005. This is consistent with the logic that cutting forests faster than their rate of regrowth is an unsustainable and environmentally harmful policy.

Results and Analysis

Over half of the countries ranked in the EPI achieve or exceed the target of zero change in growing stock. This is consistent with the fact that deforestation is a regional rather than global trend. While high rates of deforestation exist in many tropical countries, total forest volume is increasing globally. Nevertheless, the final scores do not highlight all the nations with known deforestation problems.

Island nations and major timber suppliers of tropical hardwoods are expected to score poorly. Consistent with this expectation, Indonesia is in fact at the very bottom of the list, sharing a score of '0' with Burundi and Togo. Nations such as Afghanistan, Pakistan, Benin, Nigeria, and Mauritania, which are known to have problems with illegal logging, also score poorly. The countries reporting the highest percentage losses in growing stock are mostly, but not all, smaller nations or nations with small forest areas. Again, losses exceeding 10% in a 5-year period would be extraordinary, but could occur if land use change were fast enough in a country of small forest area.

Countries doing particularly well are either those successfully protecting what little natural forest they have (e.g. Australia, Yemen, Israel, Saudi Arabia), or countries that cut down most of their forests in the past and thus have few forests to manage for growing stock. Countries with very low population density, like Russia and Columbia, also obtained high scores.

There are most likely some countries that received high scores due to misreporting. Expert estimates generally cannot accurately measure illegal logging and fuel wood harvesting, and so it is probable that many countries have received overly optimistic scores.

A total of 62 countries reported increases in forest growing stock over the period 2000-2005. Several of these increases seem large for a 5-year period, but they would be possible if a large measure of "ingrowth" is occurring. Ingrowth is the increase in inventory that results from small trees just passing the threshold for inclusion in the growing stock volume calculation. Ingrowth can be significant if there is abundant young growth.

Blueprint for Future Measurements

Forest metrics required for making policy decisions should give a clear sense of long-term trends in forest conditions. Ideal datasets would be made up of consistently collected measurements taken each year in order to capture the direction of change with high resolution. Furthermore, these data should be processed through international institutions that apply a standardized methodology for collecting data. A single forest assessment is simply not sufficient for determining the sustainability of management practices. An improvement in the consistency of national-level monitoring and reporting of forest data is therefore a top priority.

Immediate data priorities for future versions of the EPI include:

- Improving growing stock data by using a standardized methodology across all countries, such as high resolution satellite imagery;
- Estimating illegal logging;
- Measuring the value of environmental services: calculating the value of non-timber forest products, including ecosystem services, may stimulate political focus on these often ignored economic values;
- More nuanced evaluation of trends in natural forest vs. plantations and their social, economic, and ecological impacts; and,
- Improving measures of change in forest ecosystems of major environmental concern, such as for example mangroves or forests in major global "conservation hotspots."

4.5.2 Fisheries

Policy Focus

Fisheries are in crisis around the world. Over 70% of all fisheries are over-exploited or fished to capacity (FAO 2006). At the current rate of exploitation, most are predicted to collapse by mid-century (Worm 2006). A concerted global effort to move to a sustainable system of management is needed to avoid devastating effects on the health and stability of marine ecosystems as well as the endangerment of a food source that is integral to worldwide food security.

The state of fisheries can also be used as a proxy indicator for the overall health of marine environments. For an ecosystem to be resilient it must have robust populations of a variety of species, from large predators at the top of the food chain to filter-feeding mollusks towards the bottom. Fishing has historically culled top predators first and then continued down the food chain to species that were formerly not considered fit for human consumption. Cutting off the top of the pyramid in this way creates a less diverse environment that is much more susceptible to disease epidemics and can lead to long-lasting changes in species composition. For example, the Caribbean is currently undergoing a phase shift from coral reef to algal dominated systems. This shift is caused at least in part by fishing pressure on herbivorous fish.

Beyond environmental concerns, fisheries are also a major source of human livelihoods and food supply. They provide 16% of the world's dietary protein consumption (WHO/FAO, 2003) and for many, constitute the only affordable source of protein. The demand for high-quality seafood is also increasing in the developed world, which has placed further pressure on marine resources and fueled the expansion of aquaculture.

Because fish populations often cross national borders, the indicators developed for the 2008 EPI do not focus on the health of specific fish stocks. It is difficult to quantify to what extent a particular country is contributing to the decline of a fish stock that is internationally exploited. Rather, the goal of the chosen indicators is to measure the sustainability of each individual country's fishing practices within its exclusive economic zone (EEZ).

Data Availability

Many of the global datasets on fisheries are out of date or incomplete. Major data sources employed in this section of the 2008 EPI were the United Nations Food and Agriculture Organization's (FAO) fishing vessel database and the Sea Around Us Project's fish landings database and Marine Trophic Index values. Exclusive Economic Zone (EEZ) areas were taken from the Global Maritime Boundaries database, which was calculated using standard GIS protocols.

Though the FAO vessel database is used in one of this section's indicators, it should be noted that it is somewhat out of date. Some data have not been updated since 1996. Gaps in data also exist simply because not all countries have major fisheries and many have no coastal access at all. For countries missing fishery data, the productive natural resource score was constructed by averaging around the missing data.

Marine Trophic Index

The Marine Trophic Index (MTI) is used to measure the degree to which countries are "fishing down the food chain," i.e., catching smaller and smaller fish within their exclusive economic zones (Pauly 1999). It is considered to be a measure of overall ecosystem health and stability, but also serves as a proxy measure for overfishing. Human fishing practices have tended to start at the top of food webs – culling large, predatory fish before moving down to lower trophic levels. When the average trophic value of a marine ecosystem is low it indicates that many of the large predators have been removed through excessive fishing pressure.

The consequences of moving to a lower average Marine Trophic Index include lower ecosystem complexity, which can make the system more susceptible to disease and more sensitive to the pressures of fishing or climate change. A lack of species and genetic diversity means there are fewer variants with potential resistance to new environmental challenges. Overall, low MTIs put fisheries at much greater risk of collapse (Pauly 2006). The Convention on Biological Diversity has also identified the Marine Trophic Index as a key measure for setting biodiversity targets.

To calculate the Marine Trophic Index, each fish or invertebrate species is assigned a number based on its location in the food chain. Carnivores are assigned high numbers, and herbivores lower ones. The Index is calculated from datasets of commercial fish landings by averaging trophic levels for the overall catch.

For the purposes of the Marine Trophic Index indicator used in the 2008 EPI, we are interested in monitoring the direction of change in average trophic index over the last several decades. The Sea Around Us website has data from 1970-2005. We measured the slope of the trend line and set the target score as zero, i.e. no further decline in trophic level.

Trawling Intensity

Bottom trawling is a common method for catching bottom-dwelling species such as shrimp and flounder. This involves dragging heavy gear across the sea floor, which destroys habitats and captures many non-target species. Bottom trawling equipment has been described as the most destructive fishing gear in use today (Watson 2006). Boats are equipped with large, heavy nets that are dragged across the living seafloor. The nets are held open at the front by a metal beam or by large "doors," which can weigh several tons and are designed to scour the bottom as the trawl is dragged along. This process takes a heavy toll on the natural habitats of the sea floor, breaking off brittle bottom fauna such as sponges and corals.

In addition to disrupting the living seafloor, trawling kills large numbers of animals as by-catch, the accidental harvest of untargeted species such as other fish and invertebrate species, marine mammals, seabirds, and turtles. Some of this by-catch is retained for sale, but a portion of it is returned to the sea as discards, usually dead or dying. Bottom trawled fisheries have the highest discards rates of all fisheries.

The habitat destruction caused by trawling directly affects the human communities that depend on marine resources for food and income. When nursery habitats such as seagrass beds are destroyed, the entire local environment is impacted and the productivity of local fisheries decreases.

The 2008 EPI Trawling Intensity indicator consists of the percentage of the shelf area in each country's EEZ that is fished using trawling. There are no direct data available for the area trawled on a country-by-country basis. However, fish landings data are acceptable as a proxy for each country's fishing fleet. Thus trawling ships can be counted and incorporated into this trawling metric. The target level selected for this indicator is 0% area trawled, reflecting the opinion that any use of this fishing method is ecologically undesirable.

Results and Analysis

Nations that performed very well across both indicators include a proportionally large number of small island states. This finding is believed to be largely the result of economic constraints. The majority of these nations lack the vessels and other capital to exert ecologically unsustainable amounts of fishing effort. Other high performers include Central American nations such as Costa

Rica, Nicaragua, Honduras, and Panama. Several West African countries, including Ghana, Cote d'Ivoire, and Benin, also have high scores in the low 90s range.-

Though this seems to confirm a correlation between highly developed economies and poor performance on environmental metrics related to fishing, there are exceptions to this rule. Australia and Portugal feature prominently in the top ten, while the lowest scoring nations are Myanmar, Bangladesh, and Cambodia. These results indicate there is not a strict linear correlation between wealth and fisheries stewardship. Denmark is one of the lowest performers, with a score of just under four points. This is presumably due to high competition that results from sharing the relatively small Baltic Sea. Indeed, both Denmark and Germany have among the lowest scores for trawling intensity, which supports the theory that the two countries are in fierce competition over limited marine resources. Generally speaking, the Trawling Intensity indicator has a more consistent positive correlation to GDP than does the Marine Trophic Index indicator.

Blueprint for Future Measurement

The indicators selected here give an acceptable picture of the ecological problems associated with current fishing practices, though existing data sources can be improved. One of the most significant improvements would be for the FAO to produce an updated version of its fishing vessel database.

Additionally, some critical areas are entirely absent from this analysis due to lack of data. These include the negative impacts of aquaculture as measured by the sector's fishmeal and fish oil consumption. Aquaculture's primary threat to the sustainability of fisheries is its high demand for fishmeal and fish oil, which are the major inputs to many aquafeeds. The need for aquaculture contributes to overfishing worldwide as all of the small fish stocks used to make these products are already fished to capacity or overexploited (FAO 2004). Right now there is no direct data available for fishmeal usage. However, such data would be a valuable asset to measuring the impact of aquaculture and therefore to measuring overall fishing practice sustainability.

Environmental policy would also improve if policymakers had access to indicators that monitor fishing practices that cause mass kills, such as dynamite fishing. Another problematic fishing practice is long lining, which often unintentionally captures marine birds and turtles on the many miles of baited hooks that are left unattended on the floating "long line." A long lining metric that captured the impact of this practice would be quite useful.

While they provide information on unsustainable fishing practies, these proposed metrics fail to capture the socioeconomic factors that contribute to the overall sustainability of fisheries. One important socioeconomic measure is the landed value per fisherman. This metric would give a sense of the distribution of wealth among stakeholders. The distribution of wealth from fisheries is notoriously unequal. In addition, government subsidies for fishing equipment and fuel are driving a great deal of excess global fishing effort. A regularly updated database on fishing subsidies is needed to conduct a proper assessment of their impact. Developing a metric that tracks ecologically harmful fishing subsidies could also be a significant aid to policymakers.

Recent work at the University of British Columbia has focused on developing broad indicators for fisheries management and aquaculture sustainability that could be used in future editions of the EPI if data were available for a greater number of countries. An indicator that measures compliance with the FAO's code of conduct for responsible fisheries could also be developed in order to provide positive feedback for countries that make efforts to improve their practices.

4.5.3 Agriculture

Policy Focus

With a rapidly expanding global population, agriculture needs to meet the dual challenge of increasing food production while sustaining environmental goods and services. Approximately 70% of the world's terrestrial surface is currently at least partly devoted to agricultural uses (LEAD 2006). According to the Pilot Analysis of Global Ecosystems (Wood et. al 2000), crop-dominated landscapes or mosaics comprise about 30 percent of the earth's total land area, and only limited areas remain that are entirely unaffected by agriculture.

This agricultural boom on vast areas of the earth's surface has an enormous impact on ecosystems and the services they provide. Deforestation associated with agricultural land use (Watson 2000) and the chain of activity involved in the production and consumption of livestock (Steinfeld 2006) are each individually responsible for higher greenhouse gas emissions than the global transport sector. Two-thirds of global freshwater is used for irrigation, with 15-30% of withdrawals depleting water tables faster than they are naturally replenished. Moreover, many water sources are being polluted by excessive use of fertilizers and pesticides.

The ecosystem services provided by robust biodiversity, water filtration, and land stabilization are not only important for long-term ecosystem health; they are also the foundation for food security and a necessary base for adaptation to climate change. With increasing demand for high value agricultural products and a rapidly expanding population, some experts predict that world food demand will grow by as much as 50 to 60 percent in the period from 2000 to 2030 (McMichael 1999). Within this context, it is imperative to reward farmers and countries who are finding more sustainable ways to produce food while maintaining environmental integrity.

Agriculture is defined here to include annual and perennial crop production and livestock production in both intensive and extensively managed systems. Key elements of ideal sustainable agricultural practices would include:

- Protecting natural habitats in agricultural landscapes
- Environmental management for agricultural production needs
- Sustainable human livelihoods from agroecosystems
- Environmental management of the full food-fiber value chain.

The EPI strives to represent a sampling of significant and timely issues. In creating a map of practice and effect, it helps equip governments, private sector institutions and individuals with the knowledge necessary to make better agricultural and environmental policy decisions.

Data Availability

In deciding what indicators to use in developing environmental parameters for agriculture, we considered a range of issues. The key policy concerns we wanted to capture were the degradation of land; the pollution of water and air; greenhouse gas emissions; soil degradation; biodiversity, and land use change. Many potential indicators await the development of better datasets. The five indicators in the Agriculture subcategory of EPI 2008 are: Cropland Intensity, Irrigation Stress, Agricultural Subsidies, Pesticide Regulation, and Burned Land Area.

Irrigation Stress

Agriculture is by far the world's largest use of "blue water" (freshwater from streams, lakes, groundwater aquifers, etc.) accounting for 70% of freshwater extraction globally and as much as 80-90% in some developing countries. While irrigation is a necessary part of food production in many regions of the world, it is essential to manage irrigation practices in a way that leaves enough water both for human use and ecosystem services. In some cases, water efficiency can be improved through better technology, such as drip irrigation. Appropriate crop selection is also an important factor, as non-native water intensive crops are often grown commercially that may deplete water levels.

The Irrigation Stress indicator (Water Stress in Irrigated Areas) is based on a measurement of water stress developed by the University of New Hampshire Water Systems Analysis Group. By overlaying data on irrigated areas with the measure of water stress, we were able to determine spatially where measures of extreme water stress (WMO 1997) corresponded with irrigated areas. Water stress is present when rates of freshwater withdrawal exceed rates of replenishment though rainfall and natural flow. While countries can accommodate some rate of oversubscription in an isolated region via inter-basin transfer, ultimately overdrawing a water resource diminishes surface water, which degrades habitat for plants and animals. Oversubscription of groundwater for irrigation also causes land subsidence and increasing salt-water intrusion, and depletes the amount of water available for domestic consumption. The target for this indicator is for each country to experience no extreme water stress in irrigated areas.

Agricultural Subsidies

Public subsidies for agricultural production and agrochemical inputs exacerbate environmental pressures by encouraging intense chemical use, the expansion of agriculture to sensitive areas, and overexploitation of resources (OECD 2004). The Agricultural Subsidies indicator measures subsidies as a proportion of agricultural value. For countries where this data is available, we use the Nominal Rate of Assistance (NRA), defined as the price of a product in the domestic market, less its price at a country's border, expressed as a percentage of the border price, and adjusted for transport costs and quality differences (WDR 2008). For those countries where NRA data is unavailable we defer to the proximity-to-target scores provided in the Pilot 2006 EPI. Direct comparisons remain possible between the two different measures of subsidy levels due to the proximity-to-target mechanism employed. The calculations have not been adjusted to exclude "green box" subsidies that have positive environmental impacts. There are few countries where such subsidies are a very significant share of the total. This methodology makes use of the best data available, and we hope to include a more accurate measure in future editions of the EPI as improved data sources arise. The EPI target is set at no agricultural subsidies.

Cropland Intensity

Ecologists predict, as a rough guide, that if more than 30% of the area of a given landscape is under intensive agricultural production, then major ecosystem functions will likely be compromised, and if this level reaches 60%, then it will be a difficult challenge to conserve key ecosystem functions. (Daily *et al.* 2001, Dauber, *et al.* 2003; Estrada and Coates-Estrada 2001, Forman and Collinge 1996, Hietalu-Koivu *et al.* 2004, van Noordwijk *et al.* 2007).

The Cropland Intensity indicator measures the proportion of cropland in agricultural landscapes, and sets a target of 40% uncultivated land in areas of crop production. Since uncultivated land includes land left fallow, grazing land, and settlements, this target is quite conservative.

The indicator does not assume that it is better to have mixed mosaics than to have large protected areas. The indicator considers only whether each cell where cropping occurs has at least 40% land uncultivated, "making space" for other ecosystem functions. All 1×1 km grid cells without any cropland are excluded. Large blocks of uncultivated land or wilderness near agricultural areas will not impact a country's performance in this indicator. Only countries that have significant agricultural area covered horizon-to-horizon with cultivated crop fields score poorly for the indicator.

Burned Land Area

Burning of cropland, grassland and forest has long been recognized as a significant source of carbon emissions and airborne particulates, especially in developing countries. Thus from an atmospheric perspective burning is has an unambiguously negative effect. From a land management perspective, however, the role of biomass burning in soil fertility management and ecosystem processes is more difficult to assess. Controlled biomass burning in the agricultural sector, on a limited scale, can have positive functions as a means of clearing and rotating individual plots for crop production, and in some ecosystems, as a healthy means of weed control and soil fertility improvement.

The Burned Land Area indicator (Proportion of Total Land Area Burned) is built on data taken from the Joint Research Centre's Global Burned Areas 2000-2007 estimates, and calculated for this indicator by CIESIN Global Rural-Urban Mapping Project (GRUMP) land area and country grids. We consider a unit of land 'burned' if at any time during the year fire was observed. The indicator requires refinement as it currently underestimates grassland fires and does not reflect total emissions, smoke, intensity, or heat of the fires; which would help determine ecological benefits or threats.

In a number of natural ecosystems, such as savannah and scrub forests, wild fires can help maintain biotic functions. However, in tropical forest ecosystems, fires are mostly human-induced and environmentally harmful – killing wildlife, reducing habitat, and setting the stage for more fires by reducing moisture content and increasing combustible materials. Even where fire can be beneficial from an agricultural perspective, fires can inadvertently spread to natural ecosystems, setting the stage for further agricultural colonization.

Given the large impacts of burning on human health, climate change, and tropical forest ecosystems that are not naturally regulated by fied, we assess fires as, on balance, a negative phenomenon from a resource management perspective. Accordingly we set a burned land target of zero. Technically a target of no burning is undesirable. We are faced with data that include a large number of countries with a small proportion of total area burning, and an absence of finer level data that could indicate whether burning occurs in a biome that is naturally fire-regulated. We set the target as zero in light of these limitations.

Pesticide Regulation

Pesticides are a significant source of toxics in the environment, affecting both human and ecosystem health. Although newer pest control agents are often less toxic than earlier ones, pesticide-related problems remain, including the persistent use and mismanagement of toxic agents which remain in the environment beyond their intended usage as crop protection agents. Widespread use of agricultural chemicals can expose farm workers to acute levels of pesticide and the general population to low levels of pesticide residues on food. Acute exposure to pesticides has been linked to increases in headaches, fatigue, insomnia, dizziness, hand tremors, and other neurological symptoms. Pesticides also damage ecosystem health by killing beneficial insects, pollinators, and fauna.

Given the lack of pesticide use and impact data, the EPI measures Pesticide Regulation, a policy variable that tracks government attention to the issue. The Pesticide Regulation indicator is based on national participation in the Rotterdam Convention, which controls trade restriction and regulations for toxic chemicals, and the Stockholm convention, which bans the use of Persistent Organic Pollutants (POPs). POPs are toxic pollutants that bioaccumulate and move long distances in the environment. Accordingly the Pesticide Regulation indicator also considers national efforts to ban the 9 POPs which are relevant to agriculture: Aldrin, Chlordane, DDT, Dieldrin, Endrin, Heptachlor, Hexachlorobenzene, Mirex, and Toxaphene.

The two treaties and nine pollutants create a total of 11 measures, each assigned two points, for a total possible target score of 22. Countries receive the full 22 points if they have signed both conventions and submitted a national implementation plan, as well as banned the 9 POPs. If countries have only signed the convention, but submitted no implementation plan, they receive a score of “1” for that measure, and if they are not party to the convention they receive a score of “0”. A banned pesticide receives a score of “2,” a restricted pesticide a score of “1,” and a pesticide with no regulation receives a “0”.

Results and Analysis

Proportion of Irrigated Areas Under Water Stress

115 countries have a proximity-to-target score between 90 and 100, indicating minimal or no water stress in their irrigated areas, while another 34 countries score a 70-90 on the proximity-to-target scale, indicating problems in some areas. A dozen countries score 50 or less, signifying very serious threats to the sustainability of irrigation: Yemen, Saudi Arabia, Libya, Kuwait, Egypt, Mauritania, Niger, Morocco, Jordan, Somalia, Djibouti and Namibia. Even moderate levels of irrigation water stress in large producers with high dependence on irrigation, such as China, the United States, Egypt, Pakistan, India and Australia, could potentially have noticeable effects on global food supply. Of countries with a high proportion of land under irrigation, Taiwan and Thailand have 90% of lands unstressed, and in Mali the figure is also quite high, at 85%.

Proportion of Cropland in Agricultural Landscapes

Crop cover data is available for 146 countries. Of these, 90 achieved proximity-to-target scores of 90-100, meaning that 40% of land area in nearly all agricultural landscapes was left uncultivated, providing potential niches for wildlife habitat and other ecosystem services. Another 55 countries score at 50 or higher. However, 11 countries score between 30 and 50, meaning that a large share of their agricultural landscapes is at risk of ecosystem degradation. These include: Egypt, India, Algeria, Syria, Morocco, Ukraine, Denmark, Bangladesh, Tunisia and Moldova.

Proportion of Total Land Burned

Ten countries have proximity-to-target scores below 40, indicating dangerously high proportions of burned land area: Central African Republic, Zambia, Moldova, Angola, Ukraine, Uganda, Sudan, Tanzania, North Korea, Hungary, and Mozambique. 80 countries score highly in the 90-100 range, while 57 score from 60-90. It is notable that although intentional and unintentional burning for weed and pest control is more prevalent in developing countries (often at the forest or grassland 'frontier' where land use conversion is occuring), many of the countries with the most extensive burning were developed countries like the United States, where wild forest and grassland fires are on the rise.

Legislation to Control Toxic Pesticides

Of the 149 countries in the EPI ranking, 22 have fully implemented legislation in line with the Rotterdam and Stockholm conventions on control of pesticides and Persistent Organic Pollutants (POPs). 13 of the 22 countries with a perfect score are European, but the list also includes some developing countries: Costa Rica, Uruguay, Jamaica, Mauritius, Gabon, El Salvador and Guatemala. Another 53 countries score at least 80 percent of the way to target on the relevant legislation. Another 21 score between 51 and 80 and 21 fall significantly short with scores from 10 to 22. The 30 lowest ranked, who scored less than 10, included important agricultural countries like Bangladesh, Pakistan, Russia and Taiwan, as well as a number of very poor countries. Some of the lowest scoring countries were signatories to both the Stockholm and Rotterdam conventions, but had not yet banned any of the nine POPs.

Agricultural Subsidies as a Proportion of Value

An impressive 180 of the 214 countries in the full country data set met the target of no agricultural subsidies, while 17 countries had proximity-to-target scores over 85, and another 17 had scores between 40 and 84. By contrast, 27 countries, including many of the more prominent members of the EPI had scores below 25, including most of the European Union. The lowest ranked countries were Jordan, Israel, Venezuela, Switzerland, Japan, Iceland, South Korea, and Norway.

Blueprint for Future Measurements

Agriculture-environment monitoring at the global level is still weak. Nonetheless, the quality of data has improved over the past 10 years, primarily as a result of the expansion of remote sensing and global efforts at cross-country data collection, synthesis and analysis. Globally comparable data have been developed, for example, on agro-ecosystem status (Wood *et al.* 2000), ecosystem status (MEA 2005), organic agriculture (Willer and Yussefi 2007), and spatial mapping of hunger hotspots by ecosystem (CIESIN 2000). Sectoral data have been compiled on carbon sequestration and storage (Watson *et al.* 2000), tree cover (University of Maryland 1999) and livestock environmental impacts (Steinfeld 2006). Regional and landscape-scale comparative indicators on agriculture and environment have been developed within the European Union (EU 2007). Detailed spatial mapping and overlays of agriculture and environmental data are available for the US from the USDA (national sample farm study by ERS) and the Heinz Center (2002), and in Kenya from a recent atlas by ILRI-WRI (WRI *et al.* 2007). A comprehensive review of indicators has been developed by the OECD (2007), and Buck *et al.* (2006) discuss indicators that are specific for agricultural-natural system landscape mosaic (ecoagriculture) systems.

In addition to the five indicators used in the EPI agricultural index, we identify another ten prospective indicators for which relevant global data exist or could be compiled. These prospective indicators could provide enlightening information on agricultural and environmental issues not sufficiently described by the five already used in the 2008 EPI. These relate to:

Water Productivity in Agriculture, Agricultural Greenhouse Gas Emissions, Agricultural Area under Eco-Certified Production, Biological Health and Productivity of Agricultural Soils, Agricultural Water Pollution, Livestock Concentration, Pesticide Monitoring, Wild Species in Agricultural Lands, Agricultural Crop Diversity, and Conservation Areas on Private Lands.

4.6 Climate Change

Policy Focus

The forecasted impacts of global climate change, from sea level rise, coastal flooding, and extensive glacial deterioration to droughts, heat waves, and desertification, are already being felt globally and are projected to increase in severity. These events are expected to increasingly affect human health, water resources, agriculture, and ecosystems. While most greenhouse gas (GHG) emissions to date have originated in developed countries, developing countries are already and will continue to be the most significantly impacted by the consequences of climate change (Stern 2006).

Greenhouse gases are emitted from a broad range of activities, including electricity generation, transportation, industrial agriculture, forestry, and waste management (IPCC 2007). Globally, the energy sector generates the largest portion of annual GHG emissions, but many countries' biggest emissions source is not this sector. Many developing nations have very low emissions from the energy sector but have high GHG emissions associated with deforestation and agriculture. For example, Indonesia is the third largest emitter of greenhouse gases, behind China and the United States, due to rapidly occurring, extensive land use changes (World Bank 2007). Numerous developed countries have actually reduced their energy sector emissions by investing heavily in renewable energy technologies that can produce significant quantities of energy with very low overall emissions. Recognizing the heterogeneity of GHG emission sources across countries will be important for developing appropriate climate change mitigation strategies, and this diversity highlights the complex nature of developing future climate policy.

Contribution to climate change varies significantly between countries by total as well as per capita GHG emissions. Indicators that measure various aspects of each country's relative contribution to climate change are therefore an important component of the 2008 EPI.

Data Availability

At the root of the climate change problem is the emission of GHGs, which must be a part of any indicator representing environmental performance in the context of climate change. Emissions of GHGs have an impact on global climate change irrespective of where they are emitted, making emissions reductions in China as valuable as those in United States. Because of the global impact of GHG emissions, climate change mitigation and tracking of related environmental performance must occur at an international level with broad participation.

Emissions Data:

Despite the significant attention being given to the issue of climate change, there are still major gaps in GHG inventories. Data availability varies by location and sector. Emissions data reporting from the industrial sector is widely available for most countries in the world, although even these data contains notable gaps. Though data on carbon dioxide emissions from fossil fuel combustion is gathered on a yearly basis by several international agencies, data for other GHGs is minimal.

The International Energy Agency (IEA) produces annual data reports on carbon dioxide emissions from fossil fuel combustion within each country. The IEA reports cover most countries and are considered to be the most reliable sources of emissions data that exists. Data on other GHGs is reported every 5 years. These data are originally provided to the IEA by national statistical offices in OECD countries. In non-OECD countries, they are collected directly from various sources in government and industry. The EPI used exclusively IEA data for its emissions calculations.

Recommended Indicators

In order to capture various aspects of environmental performance on climate change, we assessed three different indicators:

Carbon dioxide emissions per person;
Carbon dioxide emissions intensity of the industrial sector; and
Carbon dioxide emissions intensity of the energy sector.

There is no universal agreement on targets for GHG emissions. Based on recent international negotiations within the United Nations Framework Convention on Climate Change (UNFCCC), there will likely be a long-term global target set to 40-60% reduction in emissions from 1990 levels by 2050. On this basis, the 2008 EPI used a median target of 50% reduction below 1990 levels. This target is set to reflect how far a nation is from what the scientific community judges to be a long-term emissions reduction goal necessary to avoid the worst impacts of climate change. This general target is incorporated into 2 of the 3 climate change indicators in order to focus climate change performance on long-term management goals.

Emissions per capita

Countries with larger populations tend to emit more GHG emissions (IPCC 2007 WGIII). It is not especially valuable, however, to simply measure total contribution to climate change when that contribution is largely based on population size. Thus, a more useful comparison across countries is to measure environmental performance by *carbon dioxide emissions per person*:

$$\frac{GHGEmissions, 2005(metrictonscarbondioxideequivalent)}{TotalPopulation, 2005}$$

A country that achieves a smaller ratio for this indicator will have lower relative contributions to climate change per person. Countries in the developing world generally have the lowest per capita emissions due to small industrial sectors and lifestyles that have relatively low energy intensities.

The EPI uses a target value of 50% below 1990 levels by 2050 as the basis for the per capita emissions reduction target. Since the Emissions per Capita indicator represents emissions against population, it is also necessary to set a “target” population value. While population growth has major environmental implications, we chose to apply the median global population projection to 2050 across all countries, since population reductions are not easily achieved through climate policy.

Industrial Carbon Intensity

Simply comparing total emissions per capita is not sufficient to fully measure performance. The differences we observe often have more to do with history and circumstance than proactive environmental performance. In contrast, measuring emissions within a single sector can capture the efficiency of processes within that sector. While we lacked the data resolution to measure the efficiency of individual industrial processes, we did measure emissions efficiency within the industrial sector. The emissions intensity of the industrial sector reflects the extent to which GHGs are being managed within a country’s industrial economy. This indicator is most commonly represented by the *industrial sector carbon dioxide emissions per gross domestic product of the industrial sector:*

$$\frac{IndustrialGHGEmissions, 2005(MetricTonnescarbondioxide)}{IndustrialGDP, PPP, 2005(CurrentInternationalDollar)}$$

Countries that perform best on this indicator are those that have invested in low-carbon growth in their industrial sectors through energy conservation, investment in clean technologies, or other changes that result in industrial processes with lower emissions. By focusing on the industrial sector, we avoid merely observing shifts from industrial to service-based economies. While these shifts would result in a legitimate reduction in emissions, they do not represent proactive emission reductions; it is a reflection of a country moving along a typical development pathway.

The target for emissions intensity of the industrial sector is 0.85 metric tons carbon dioxide equivalent per $1,000 (USD, 2005, PPP) of industrial GDP. This value is a reduction that is proportionate to the target for GHG emissions per person.

Emissions per unit Electricity Generation

Since the majority of GHG emissions are generated in the energy sector, it is widely recognized that the greatest proportion of emissions reductions will have to occur within this sector. Consequently, an indicator that reflects emissions intensity of the energy sector highlights which countries have the most inefficient energy production. A useful proxy, therefore, is calculated using *GHG emissions per unit of electricity and heat output.*

$$\frac{GHGEmissions, 2005(MetricTonsCarbonDioxideEquivalent)}{ElectrictyandHeatOutput(kWh)}$$

Like the previous indicator considering the industrial sector, the Emissions per unit Electricity Generation indicator observes specific emission reductions within one of the sectors most responsible for GHG emissions. Countries that have invested in policies promoting energy efficiency or derive energy from renewable energy sources will score higher for this indicator. In contrast, countries that meet their electricity demand entirely with fossil fuels or fuel wood will do poorly.

We chose a target value of zero emissions per unit of output as the theoretically ideal target for the Emissions per Electricity Generation indicator. Many climate change economists have argued that abating pollution to the point of zero emissions is not optimal due to the exponentially increasing costs of abating the last units of pollution. While we acknowledge this important aspect, by choosing an overly optimistic indicator, we can observe a greater spread among the countries' environmental performances. Ultimately, the relative distance to a target will determine a country's EPI score rather than their absolute distance, so an overly stringent target will not affect all countries equally.

Where data were missing for emissions per electricity and heat output, missing values were imputed by calculating renewable energy consumption as a percentage of total energy consumption.

Notice that these ratios assume a linear relationship between GHG emissions and some variable in the denominator. If this relationship does not hold, then a larger population, larger industrial GDP, or large electricity output would alone result in lower ratios. These indicators also do not capture historical contributions to GHG emissions. Instead, they capture recent emissions and are therefore a snapshot of current environmental performance.

Results and Analysis

The climate change rankings may come as a surprise to some, as there is no obvious relationship between wealth and performance. In general, only wealthy countries have invested in national climate change policies, but these policies alone have not necessarily resulted in measurable emission reductions. In many cases, these policies have not been sufficiently stringent to reduce emissions. In contrast, many developing nations are able to perform well due to low levels of total GHG emissions, despite the fact that this performance is not the result of proactive policy changes.

The highest-ranking nations in the climate change category are principally poorer countries with economies based in subsistence agriculture and little industry. The industrialized countries with notably high ranks are Switzerland, Norway, and Sweden. These are countries that have implemented innovative government policies to reduce emissions producing measurable results, including taxes on fossil fuels, improvements in energy efficiency, and sustainable forest management. Consequently, these countries have succeeded in getting their GHG emissions per capita closer to global long-term targets relative to other industrialized nations.

The laggards on climate change are typically countries with particularly carbon-intensive industry and electricity generation sectors, such as United Arab Emirates and Australia, or countries with high rates of deforestation relative to their small populations. Deforestation occurring in developing nations in the tropics accounts for 1/5th of global emissions each year, which is a substantial fraction of total national emissions for many of these countries.

Among wealthy nations, the US and Australia rank lowest with regards to climate change performance. They have very high emissions per capita due to relatively high fossil fuel energy consumption and their failure to implement ambitious GHG emissions reduction policies. It may also be surprising to see a number of least-developed nations scoring very well. While these countries have not necessarily been proactive in combating GHG emissions, they simply do not have high emissions due to limited industrial and transport sectors and slow to non-existent deforestation.

Blueprint for Future Measurement

Despite the recent spotlight on climate change, even the best datasets are not completely reliable and have major gaps. Ideal future indicators would contain three principal improvements:

Improved emissions data on all GHGs. Currently, emissions data on non-carbon dioxide gases are collected every five years, and even these data are not very reliable. Improved GHG reporting of non-carbon dioxide gases will drastically improve our ability to track environmental performance on climate change.

Improved GHG emissions data from all economic sectors. It is worthwhile to dig deeper into the management of GHGs by parsing emissions by specific economic sectors in order to put a spotlight on those sectors where emissions are being successfully managed. The 2008 EPI is able to capture the emissions of two economic sectors: industry and energy. Ideally, however, we would include a broader spectrum of sectors, including transportation, agriculture, forestry, and waste disposal. This expanded dataset would provide a more detailed look into trends within all of the major emitting economic sectors.

Improved GHG emissions data from land use, land use change, and forestry. A major source of uncertainty in the available GHG emissions data is emissions from deforestation and changing land use. Emissions from this source are estimated to be between 20-25% of the total annual GHG emissions worldwide (IPCC 2007 WGI), yet the data that exist are problematic. This is an important source of error since a significant portion of emissions from many developing countries derives from land use change. Omitting these data therefore heavily favors developing countries.

5. SENSITIVITY ANALYSIS

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Summary

An assessment of the robustness of the 2008EPI results requires the evaluation of uncertainties underlying the index and the sensitivity of the country scores and rankings to the methodological choices made during the development of the Index. To test this robustness, the EPI team has continued its partnership with the Joint Research Centre (JRC) of the European Commission in Ispra, Italy. A summary of the JRC sensitivity analysis follows. The more detailed version is included in Appendix F.

Any composite indicator, such as the EPI, involves subjective judgments such as the selection of indicators, the data treatment, choice of aggregation method, and the weights applied to the indicators. Because the quality of an index depends on the soundness of its assumptions, good practice requires evaluating confidence in the index and assessing the uncertainties associated with its development process. To ensure the validity of the policy conclusions extracted from the EPI, it is important that the sensitivity of the index to alternative methodological assumptions be adequately studied. Sensitivity analysis permits the examination of the framework of a composite index by looking at the relationship between information flowing in and out of it (Saltelli *et al.* 2008). Using sensitivity analysis, we can study how variations in EPI scores and ranks derive from different sources of variation in the assumptions. Sensitivity analysis also demonstrates how each indicator depends upon the information that composes it. It is thus closely related to uncertainty analysis, which aims to quantify the overall uncertainty in a country's score (or rank) as a result of the cumulative effect of uncertainties in the index construction. A combination of uncertainty and sensitivity analyses can help to gauge the robustness of the EPI results, to increase the EPI's transparency, to identify the countries that improve or decline under certain assumptions, and to help frame the debate around the use of the index.

The validity of the EPI scoring and respective ranking is assessed by evaluating how sensitive it is to the assumptions that have been made about its structure and the aggregation of the 25 underlying indicators. The sensitivity analysis carried out for EPI is mainly related to:

1. the measurement error of the raw data,
2. the choice of capping at selected targets for the 25 indicators,
3. the choice to correct for skewed distributions in the indicators values,
4. the weights assigned to the indicators and/or to the subcomponents of the index, and finally
5. the aggregation function at the policy level.

The main conclusions are summarized below.

How do the EPI ranks compare to the ranks under alternative methodological approaches?

The frequency table of a country's rank summarizes the position a country can take anywhere in the 149-rank ladder (grouped in blocks of ten) when accounting for different combinations of the five types of uncertainty mentioned previously. A total of 40,000 simulations were run in order to cover the space of uncertainties present in the 2008 EPI. We discuss ranks and not scores because non-parametric statistics are more appropriate in our case given the non-normal character of the data and the scores. In the relevant literature, the median rank is proposed as a summary measure of a rank distribution. The median rank of all combinations of assumptions indicates that for 1 out of 2 countries in the EPI, the difference between the EPI rank and the most likely (median) rank is less than 15 positions (recall that we have a total of 149 studied countries). Thus, for half of the countries studied, the modest sensitivity of the EPI ranking to the five assumptions (eventual measurement error in the raw data, the correction of skewed data distribution, the use of target values, the weighting of the indicators, and finally the aggregation function at the policy level) implies a reasonably high degree of robustness of the index for those countries. For the remaining half of the countries, the EPI performance is highly sensitive to the methodological choices in the index, and should thus be considered as merely indicative. A discussion on the top performing countries is in place. The top ten performing countries in the EPI include Switzerland, Sweden, Norway, Finland, Costa Rica, Austria, New Zealand, Latria, Colombia and France. However, the simulations indicate that most of those countries should be positioned much lower. Switzerland, for example has a probability of only 31% to be ranked in the top ten countries, whilst even lower is the probability for Austria, Latvia and France. In our simulations, New Zealand scores 98% of the times in the top ten, followed by Finland, Costa Rica and Colombia. Panama, whose EPI rank is 32, should actually be considered as a top ten performing country, given that its score is among the top ten in 73% of the simulations.

Which are the most volatile countries and why?

There are several countries with a relatively high difference between their best and worst rank. A very high volatility of more than 80 positions is found for Hungary (rank: 23), Denmark (25), Albania (27), Ireland (34), Uruguay (36), Bosnia & Herzegovina (48), Belgium (57), El Salvador (65), Laos (101) and Tanzania (113). The volatility of those countries is due to the combined effect of all five assumptions, although the most influential input factors are the (1) use of a geometric versus a arithmetic average aggregation function at the policy level and (2) the use of equal weighting or Factor Analysis weighting at the indicators level.

What if measurement error is incorporated?

A normally distributed random error term was added to the raw data with a mean zero and a standard deviation equal to the observed standard deviation for each indicator. Among the countries that are most affected by this assumption is Luxembourg (rank: 31), whose rank would drop by 53 positions. On the other extreme, the Philippines (rank: 61) would improve its rank and be placed in the 10th position. Overall, the introduction of measurement error in the raw data has a median impact of 9 ranks and a 90th percentile impact of 29 ranks. In other words, this assumptions leaves 1 out of 2 countries almost unaffected (less than 9 rank change), but 1 out of 10 countries would shift more than 29 ranks.

What if skewed distributions are not winsorized?

Winsorization was not found to have a significant impact on the EPI ranking. Most notably, Luxembourg (rank: 31) would deteriorate its rank by 53 positions. On the other extreme, the Philippines (rank: 61) would improve its rank and be placed in the 10^{th} position. Overall, the introduction of measurement error in the raw data has a median impact of 9 ranks and a 90^{th} percentile impact of 29 ranks. In other words, this assumptions leaves 1 out of 2 countries almost unaffected (less than 9 ranks change), but 1 out of 10 countries would shift more than 29 positions.

What if capping at target values for the indicators is not undertaken?

Luxembourg (rank: 31) and Laos (rank: 101) would see the greatest shift in their ranks (a decline of 12 and 15 positions respectively). In the best case, El Salvador (rank: 65) will improve by 9 positions. Overall, for 1 out of 2 countries, the impact of this assumption is only 3 positions, while 1 out of 10 countries shift by more than 7 positions, but not more than 15. Thus, the impact of capping at the indicators' performance targets exerts only a small impact on the EPI ranking.

What is the impact of alternative weighting schemes?

Four alterative weighting schemes, all with their implications and advantages, are deemed as the most representative in the literature of composite indicators and worth being tested in our current analysis.

• current weighting vs. FA-derived weights at the indicator level;
• current weighting vs. equal weighting at the indicator level;
• current weighting vs. equal weighting at the subcategory level;
• current weighting vs. equal weighting at the policy level;

The simulation study showed that all of these scenarios have significant influence on the EPI ranking (see Appendix on Sensitivity Analysis for full detail). The scenarios with the biggest effect being equal weighting at the policy level, equal weighting at the indicator level, and Factor Analysis derived weights at the indicator level. In any of these three cases, 1 out of 2 countries shifts less than 15 positions with respect to the original EPI ranking, whilst 1 out of 10 countries shifts more than 50 positions.

What if the aggregation function is geometric instead of arithmetic?

When a non-compensatory aggregation is performed at the policy level using the geometric mean function instead of the arithmetic mean, the effect on the EPI rankings is moderate. Sri Lanka, Peru and Egypt improve their ranks by 18 positions or more, whilst the greatest decline is observed for Uruguay (down more than 51 positions). Overall, for 1 out of 2 countries, the impact of this assumption is merely 5 positions, while 1 out of 10 countries shift by more than 18 positions (up to 51 positions).

All things considered, the 2008 EPI has an architecture that highlights the complexity of translating environmental stewardship into straightforward, clear-cut policy recipes. The trade-offs within the index dimensions are a reminder of the danger of compensability between dimensions while identifying the areas where more work is needed to achieve a coherent framework in particular in terms of the relative importance of the indicators that compose the EPI framework.

APPENDICES A: POLICY CATEGORY TABLES

Environmental Health

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	United Kingdom	99.4	51	Czech Rep.	91.6	101	Iraq	67.1
2	Ireland	99.4	52	Kazakhstan	91.5	102	Mongolia	66.6
3	Sweden	99.4	53	Colombia	91.4	103	Myanmar	63.9
4	Germany	99.4	54	Mexico	91.3	104	India	62.6
5	France	99.4	55	Turkey	91.2	105	Tajikistan	62.2
6	Iceland	99.3	56	Argentina	91.1	106	Bolivia	61.2
7	Australia	99.3	57	United Arab Em.	89.8	107	Swaziland	61.1
8	Finland	99.3	58	Albania	89.3	108	Namibia	60.9
9	Norway	99.3	59	Uruguay	88.9	109	Nepal	60.2
10	Denmark	99.3	60	Iran	88.9	110	Solomon Islands	59.6
11	Luxembourg	99.3	61	Dominican Rep.	88.8	111	Ghana	59.0
12	Slovakia	99.1	62	Venezuela	88.5	112	Senegal	58.4
13	New Zealand	99.0	63	Georgia	88.4	113	Papua New Guinea	58.2
14	Switzerland	98.9	64	Trinidad & Tobago	88.4	114	Côte d'Ivoire	57.4
15	Canada	98.9	65	Armenia	88.0	115	Djibouti	57.2
16	Belgium	98.8	66	Jamaica	87.2	116	Pakistan	54.6
17	Italy	98.6	67	Brazil	86.9	117	Kenya	54.5
18	United States	98.5	68	Panama	86.4	118	Bangladesh	53.6
19	Portugal	98.4	69	Macedonia	86.1	119	Tanzania	52.2
20	Hungary	98.4	70	Saudi Arabia	85.5	120	Togo	52.0
21	Japan	98.3	71	Thailand	85.5	121	Congo	51.0
22	Spain	98.2	72	Morocco	85.2	122	Haiti	50.1
23	Austria	98.1	73	Moldova	85.0	123	Yemen	48.2
24	Netherlands	98.1	74	Oman	84.6	124	Cameroon	47.7
25	Israel	97.9	75	Syria	84.5	125	Eritrea	47.2
26	Slovenia	97.8	76	Philippines	82.5	126	Sudan	47.0
27	Mauritius	97.7	77	Algeria	82.2	127	Uganda	41.6
28	Estonia	97.7	78	South Africa	81.8	128	Nigeria	40.6
29	Greece	97.2	79	El Salvador	81.8	129	Benin	40.2
30	Ukraine	97.0	80	Belize	81.3	130	Laos	39.8
31	Cyprus	96.8	81	Egypt	79.6	131	Cambodia	39.1
32	Malaysia	96.7	82	Sri Lanka	78.8	132	Burundi	37.6
33	Croatia	96.6	83	Peru	78.3	133	Madagascar	37.6
34	Taiwan	96.6	84	Uzbekistan	78.2	134	Guinea-Bissau	36.7
35	Cuba	96.4	85	Guatemala	78.2	135	Central Afr. Rep.	35.2
36	Russia	96.3	86	Fiji	78.2	136	Ethiopia	35.0
37	South Korea	95.6	87	Turkmenistan	78.1	137	Malawi	34.0
38	Lebanon	95.5	88	Romania	77.8	138	Mauritania	33.2
39	Belarus	95.4	89	Honduras	77.2	139	Rwanda	32.2
40	Latvia	95.2	90	Azerbaijan	76.4	140	Guinea	31.3
41	Lithuania	95.1	91	Viet Nam	76.3	141	Zambia	30.8
42	Bulgaria	94.7	92	Kyrgyzstan	76.2	142	Mozambique	25.5
43	Poland	93.6	93	Gabon	75.4	143	Chad	18.4
44	Chile	93.3	94	Guyana	75.3	144	Sierra Leone	18.2
45	Costa Rica	93.2	95	Paraguay	73.3	145	Burkina Faso	16.2
46	Bosnia & Herz.	93.1	96	Nicaragua	72.9	146	Mali	13.4
47	Tunisia	92.9	97	China	71.4	147	Dem. Rep. Congo	12.6
48	Kuwait	92.0	98	Indonesia	69.5	148	Angola	8.9
49	Ecuador	91.7	99	Botswana	68.6	149	Niger	6.0
50	Jordan	91.7	100	Zimbabwe	67.8			

Air (effects on nature)

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Solomon Islands	100.0	51	Sri Lanka	98.1	101	United Kingdom	91.0
2	Eritrea	100.0	52	New Zealand	98.0	102	Slovakia	90.9
3	Papua New Guinea	99.9	53	Panama	98.0	103	Burkina Faso	90.7
4	Djibouti	99.8	54	El Salvador	97.9	104	Botswana	90.6
5	Fiji	99.8	55	Malaysia	97.9	105	Trinidad & Tobago	90.6
6	Georgia	99.8	56	Uzbekistan	97.9	106	Hungary	90.4
7	Madagascar	99.8	57	Pakistan	97.7	107	South Africa	90.4
8	Haiti	99.8	58	Azerbaijan	97.7	108	Egypt	90.1
9	Tajikistan	99.8	59	Finland	97.7	109	Laos	90.0
10	Mauritania	99.8	60	Syria	97.6	110	Mexico	88.7
11	Turkmenistan	99.7	61	Venezuela	97.5	111	India	88.0
12	Niger	99.7	62	Dominican Rep.	97.4	112	Lebanon	87.8
13	Kenya	99.7	63	Tunisia	97.4	113	Italy	87.7
14	Kyrgyzstan	99.7	64	Croatia	97.2	114	Chile	87.6
15	Malawi	99.6	65	Philippines	97.2	115	Congo	87.3
16	Honduras	99.6	66	Switzerland	97.1	116	Argentina	87.3
17	Guyana	99.6	67	Gabon	97.1	117	Jamaica	86.9
18	Uruguay	99.6	68	Austria	97.0	118	Ghana	86.9
19	Swaziland	99.6	69	Ukraine	96.9	119	Chad	86.9
20	Moldova	99.5	70	Peru	96.9	120	Namibia	85.7
21	Latvia	99.5	71	Portugal	96.8	121	Poland	85.5
22	Burundi	99.5	72	Turkey	96.8	122	United Arab Em.	85.1
23	Belize	99.5	73	Cuba	96.6	123	Australia	84.9
24	Nicaragua	99.4	74	Mali	96.2	124	Bulgaria	83.9
25	Armenia	99.4	75	Russia	96.1	125	Japan	83.7
26	Costa Rica	99.3	76	Indonesia	96.1	126	Cameroon	83.6
27	Tanzania	99.3	77	Denmark	96.1	127	Côte d'Ivoire	83.4
28	Morocco	99.2	78	Macedonia	96.1	128	Guinea	83.4
29	Nepal	99.2	79	Iceland	96.0	129	Canada	82.2
30	Guinea-Bissau	99.2	80	France	95.9	130	Myanmar	81.4
31	Albania	99.1	81	Kazakhstan	95.8	131	Paraguay	80.0
32	Uganda	99.0	82	Bangladesh	95.7	132	Thailand	79.6
33	Rwanda	99.0	83	Jordan	95.6	133	Kuwait	79.3
34	Saudi Arabia	98.9	84	Ethiopia	95.5	134	Czech Rep.	78.3
35	Ecuador	98.9	85	Romania	95.5	135	Sudan	77.1
36	Iraq	98.8	86	Togo	95.3	136	Israel	75.2
37	Cambodia	98.8	87	Estonia	95.3	137	Netherlands	66.3
38	Iran	98.8	88	Sierra Leone	95.0	138	Zambia	65.3
39	Belarus	98.7	89	Viet Nam	94.9	139	Nigeria	65.1
40	Algeria	98.7	90	Slovenia	94.6	140	Central Afr. Rep.	55.4
41	Ireland	98.6	91	Mauritius	94.4	141	Belgium	50.2
42	Senegal	98.6	92	Zimbabwe	94.4	142	Taiwan	49.8
43	Mongolia	98.5	93	Spain	93.7	143	Dem. Rep. Congo	49.7
44	Guatemala	98.5	94	Norway	93.4	144	Bolivia	49.4
45	Lithuania	98.4	95	Greece	92.3	145	Angola	49.2
46	Colombia	98.3	96	Bosnia & Herz.	91.8	146	Brazil	48.9
47	Yemen	98.3	97	Cyprus	91.6	147	South Korea	45.0
48	Mozambique	98.3	98	Benin	91.6	148	China	44.9
49	Sweden	98.1	99	Luxembourg	91.1	149	United States	44.0
50	Oman	98.1	100	Germany	91.1			

Water (effects on nature)

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Finland	99.0	51	Colombia	74.9	101	Central Afr. Rep.	60.6
2	New Zealand	98.9	52	Argentina	74.9	102	Kazakhstan	60.3
3	Latvia	98.0	53	Guyana	74.8	103	Guinea-Bissau	60.1
4	Slovenia	98.0	54	Bangladesh	74.8	104	Togo	60.1
5	Sweden	97.1	55	Cambodia	73.7	105	Sierra Leone	60.1
6	Albania	96.5	56	United States	73.1	106	Benin	60.1
7	Norway	95.6	57	Russia	73.0	107	Guinea	60.1
8	Lithuania	95.1	58	Cuba	72.2	108	Kyrgyzstan	60.1
9	Switzerland	94.5	59	Ecuador	72.2	109	Mexico	58.5
10	Canada	92.9	60	Ghana	71.3	110	Madagascar	58.1
11	Bosnia & Herz.	92.4	61	Luxembourg	71.1	111	Peru	57.7
12	Croatia	92.0	62	Taiwan	71.1	112	Nigeria	57.5
13	Uruguay	90.3	63	Bolivia	70.7	113	Solomon Islands	57.3
14	Laos	90.2	64	Kenya	70.5	114	Mozambique	57.3
15	Portugal	87.6	65	Macedonia	69.7	115	Malawi	57.0
16	Viet Nam	87.6	66	China	69.6	116	Turkmenistan	56.0
17	United Kingdom	87.4	67	Chile	69.5	117	Zimbabwe	53.4
18	Italy	86.7	68	Venezuela	69.5	118	Burkina Faso	53.4
19	Panama	86.5	69	Turkey	69.3	119	Ethiopia	52.8
20	Greece	86.4	70	Dem. Rep. Congo	69.2	120	Ukraine	52.5
21	Indonesia	86.4	71	Netherlands	68.8	121	Belgium	52.3
22	Japan	86.3	72	Philippines	68.6	122	Pakistan	52.2
23	Fiji	86.2	73	Dominican Rep.	68.5	123	Chad	51.8
24	Brazil	85.7	74	Tanzania	68.0	124	Mauritania	51.3
25	Guatemala	85.1	75	Egypt	67.6	125	Czech Rep.	50.2
26	Thailand	85.0	76	Senegal	67.4	126	Côte d'Ivoire	49.8
27	Malaysia	84.4	77	Cyprus	67.2	127	Djibouti	49.8
28	South Korea	84.1	78	Sudan	66.7	128	Papua New Guinea	49.0
29	Myanmar	83.5	79	Romania	66.2	129	Azerbaijan	48.5
30	Denmark	83.4	80	Mongolia	66.1	130	Uzbekistan	48.1
31	Ireland	82.8	81	India	65.4	131	Botswana	47.8
32	Poland	81.0	82	Belarus	64.8	132	Iraq	46.3
33	Austria	79.9	83	Mauritius	64.7	133	Niger	44.9
34	Trinidad & Tobago	79.7	84	Zambia	64.6	134	Morocco	44.7
35	Jamaica	79.7	85	Spain	64.4	135	Lebanon	44.5
36	Sri Lanka	79.7	86	Iceland	63.7	136	Israel	42.4
37	Hungary	79.6	87	Tajikistan	63.7	137	South Africa	41.7
38	Germany	79.2	88	Uganda	63.3	138	Tunisia	41.2
39	Estonia	79.0	89	Eritrea	62.8	139	Algeria	36.5
40	Haiti	78.9	90	Burundi	62.8	140	Namibia	36.0
41	Belize	78.5	91	Rwanda	62.8	141	Moldova	35.7
42	Nicaragua	78.5	92	Swaziland	62.5	142	Oman	29.3
43	Costa Rica	78.5	93	Australia	62.5	143	Armenia	28.0
44	El Salvador	78.5	94	Georgia	62.0	144	United Arab Em.	27.1
45	Honduras	77.3	95	Paraguay	61.9	145	Saudi Arabia	21.5
46	Mali	76.9	96	Iran	61.7	146	Syria	19.3
47	France	76.6	97	Angola	61.6	147	Yemen	19.2
48	Nepal	76.4	98	Gabon	60.9	148	Jordan	14.6
49	Bulgaria	76.1	99	Congo	60.9	149	Kuwait	0.0
50	Slovakia	75.7	100	Cameroon	60.9			

Biodiversity

Rank	Country	Score
1	Central Afr. Rep.	100.0
2	Botswana	100.0
3	Zambia	99.9
4	Laos	97.1
5	Saudi Arabia	95.5
6	Congo	93.4
7	Zimbabwe	91.1
8	Malawi	90.1
9	Belize	89.2
10	Kenya	89.0
11	Jordan	88.7
12	Mongolia	88.0
13	Tanzania	87.2
14	Benin	86.0
15	Cambodia	85.4
16	Niger	83.0
17	Switzerland	82.7
18	Chad	79.9
19	Ecuador	79.6
20	Russia	79.2
21	Uganda	78.9
22	Bolivia	78.4
23	Finland	78.3
24	Australia	78.1
25	Egypt	77.2
26	Colombia	75.0
27	Venezuela	74.9
28	Algeria	73.9
29	Namibia	73.4
30	Dem. Rep. Congo	73.2
31	Gabon	73.0
32	Estonia	72.4
33	Rwanda	72.2
34	Austria	71.6
35	Ethiopia	71.2
36	Malaysia	68.3
37	Canada	67.6
38	Taiwan	66.7
39	Dominican Rep.	65.7
40	United States	65.3
41	Burkina Faso	64.7
42	Panama	64.2
43	Côte d'Ivoire	63.9
44	Ghana	63.8
45	Togo	63.3
46	Israel	62.7
47	Sri Lanka	62.6
48	Burundi	62.5
49	Iceland	62.3
50	New Zealand	61.9
51	Norway	61.2
52	Nigeria	59.8
53	Angola	58.9
54	Paraguay	58.5
55	Turkmenistan	58.1
56	Peru	58.1
57	Sweden	58.0
58	China	56.7
59	Luxembourg	56.7
60	Thailand	55.7
61	Guyana	55.5
62	Mozambique	55.4
63	Brazil	53.9
64	Slovakia	53.5
65	Cameroon	53.4
66	Swaziland	50.6
67	Indonesia	50.3
68	Poland	48.4
69	Germany	48.2
70	Costa Rica	48.0
71	Trinidad & Tobago	47.5
72	United Kingdom	47.2
73	Papua New Guinea	47.1
74	Honduras	47.1
75	Guinea-Bissau	46.5
76	Oman	46.1
77	Nepal	45.0
78	Nicaragua	44.8
79	South Africa	44.8
80	Philippines	44.5
81	Iran	44.3
82	Pakistan	44.0
83	Tajikistan	43.8
84	Chile	42.7
85	Eritrea	42.4
86	Latvia	42.4
87	Mexico	41.8
88	Czech Rep.	38.4
89	Japan	37.3
90	Mali	37.2
91	United Arab Em.	36.6
92	Slovenia	36.5
93	Guatemala	36.4
94	Madagascar	35.2
95	Jamaica	35.0
96	Mauritania	34.6
97	Portugal	33.7
98	Argentina	33.6
99	Guinea	32.4
100	Romania	30.1
101	Sudan	30.1
102	Senegal	29.5
103	Cyprus	29.3
104	Azerbaijan	29.0
105	Spain	28.7
106	Viet Nam	28.4
107	Cuba	28.0
108	Kuwait	27.6
109	France	27.4
110	Kyrgyzstan	26.1
111	Myanmar	24.5
112	Uzbekistan	23.9
113	Belarus	23.3
114	Kazakhstan	22.9
115	Tunisia	22.4
116	Mauritius	21.9
117	Bulgaria	21.3
118	India	21.2
119	Georgia	18.6
120	Italy	16.5
121	Armenia	16.0
122	Macedonia	15.8
123	Morocco	15.4
124	Croatia	14.1
125	Denmark	13.9
126	South Korea	11.9
127	Syria	11.7
128	Lithuania	11.0
129	Hungary	10.5
130	Belgium	10.0
131	Greece	9.6
132	Netherlands	9.1
133	Ireland	8.8
134	Fiji	8.7
135	Ukraine	8.5
136	Haiti	6.2
137	Sierra Leone	6.0
138	Bangladesh	5.5
139	Turkey	5.2
140	El Salvador	4.3
141	Albania	4.0
142	Moldova	2.4
143	Solomon Islands	1.8
144	Iraq	1.6
145	Bosnia & Herz.	1.2
146	Lebanon	1.0
147	Yemen	0.8
148	Uruguay	0.4
149	Djibouti	0.2

Productive Natural Resources

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Fiji	99.0	51	Yemen	84.7	101	Haiti	76.7
2	Cyprus	97.3	52	Italy	84.7	102	Israel	76.6
3	Costa Rica	97.1	53	Madagascar	84.6	103	Germany	76.5
4	Jamaica	96.2	54	Central Afr. Rep.	84.5	104	Honduras	76.5
5	Kyrgyzstan	95.8	55	Bolivia	84.5	105	Namibia	76.1
6	Trinidad & Tobago	95.7	56	Swaziland	84.3	106	Burkina Faso	76.1
7	Estonia	95.2	57	Spain	84.1	107	Belgium	76.1
8	Colombia	94.8	58	Chad	84.0	108	Botswana	75.7
9	New Zealand	94.6	59	Kenya	83.9	109	Slovenia	75.6
10	Papua New Guinea	93.7	60	Ireland	83.8	110	Turkey	75.5
11	Mauritius	93.4	61	Nicaragua	83.6	111	Netherlands	75.5
12	Laos	93.4	62	Uzbekistan	83.6	112	China	75.2
13	Côte d'Ivoire	93.3	63	Guinea-Bissau	83.5	113	Sri Lanka	75.0
14	Australia	91.8	64	United States	83.5	114	United Kingdom	74.7
15	Finland	91.3	65	Georgia	83.4	115	Niger	74.1
16	Macedonia	91.2	66	Malaysia	83.2	116	United Arab Em.	74.1
17	Luxembourg	91.1	67	Senegal	82.9	117	El Salvador	73.6
18	Czech Rep.	90.9	68	Sierra Leone	82.9	118	Iceland	73.4
19	Congo	90.5	69	Syria	82.9	119	Zambia	73.0
20	Portugal	90.5	70	Guinea	82.8	120	Venezuela	72.8
21	Lebanon	90.0	71	Norway	82.6	121	Tanzania	72.7
22	Gabon	89.9	72	Saudi Arabia	82.5	122	Ethiopia	71.6
23	Eritrea	89.8	73	Hungary	82.5	123	Argentina	71.5
24	Croatia	89.5	74	Russia	82.3	124	Solomon Islands	71.2
25	Slovakia	89.3	75	Poland	82.3	125	Mozambique	71.2
26	Switzerland	89.1	76	Armenia	82.1	126	South Korea	71.0
27	Rwanda	89.0	77	Egypt	82.0	127	Dem. Rep. Congo	70.6
28	Brazil	89.0	78	Tajikistan	81.8	128	Philippines	70.4
29	Panama	88.6	79	Iran	81.6	129	Jordan	69.8
30	Bosnia & Herz.	88.6	80	Belize	81.4	130	Tunisia	68.7
31	Belarus	88.4	81	Angola	81.3	131	Zimbabwe	68.7
32	Austria	88.2	82	Thailand	81.3	132	Djibouti	68.5
33	Turkmenistan	87.9	83	Lithuania	81.2	133	Cameroon	66.9
34	Chile	87.8	84	Mali	80.8	134	Benin	65.8
35	Mexico	87.4	85	Peru	80.6	135	Pakistan	64.6
36	Kazakhstan	87.0	86	Viet Nam	80.0	136	Kuwait	64.5
37	Algeria	86.7	87	Albania	79.4	137	Ecuador	61.8
38	South Africa	86.6	88	Guatemala	79.3	138	Taiwan	61.2
39	Cuba	86.6	89	Moldova	79.2	139	Myanmar	61.2
40	Paraguay	86.0	90	Morocco	78.6	140	Mauritania	58.8
41	Latvia	86.0	91	Bulgaria	78.6	141	Denmark	56.1
42	France	86.0	92	Sudan	78.4	142	Iraq	55.6
43	Oman	86.0	93	Nepal	78.2	143	Togo	54.4
44	Sweden	85.9	94	Ghana	77.9	144	Nigeria	53.9
45	Mongolia	85.7	95	Romania	77.8	145	Uganda	53.4
46	Japan	85.7	96	Ukraine	77.7	146	Indonesia	50.9
47	Azerbaijan	85.7	97	India	77.7	147	Burundi	48.0
48	Dominican Rep.	85.5	98	Guyana	77.2	148	Bangladesh	47.1
49	Uruguay	85.4	99	Canada	77.0	149	Cambodia	44.4
50	Greece	85.4	100	Malawi	76.8			

Climate

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Mozambique	99.8	51	Panama	78.0	101	Netherlands	66.1
2	Costa Rica	98.3	52	Burkina Faso	77.6	102	Cambodia	66.0
3	Tajikistan	98.2	53	Slovenia	77.2	103	Taiwan	65.5
4	Nepal	98.1	54	Tunisia	77.1	104	Macedonia	65.5
5	Ethiopia	97.2	55	Azerbaijan	77.1	105	Cuba	64.5
6	Cameroon	97.0	56	Bangladesh	77.1	106	Iran	63.4
7	Namibia	96.5	57	Croatia	76.9	107	Bulgaria	63.3
8	Dem. Rep. Congo	95.2	58	Honduras	76.9	108	Russia	62.9
9	Congo	94.6	59	Finland	76.8	109	Poland	62.7
10	Switzerland	94.6	60	Germany	76.2	110	Greece	62.5
11	Uganda	94.5	61	Papua New Guinea	75.9	111	Czech Rep.	62.3
12	Malawi	94.5	62	Nicaragua	75.9	112	Malaysia	61.9
13	Paraguay	94.2	63	Côte d'Ivoire	75.6	113	Estonia	61.8
14	Albania	93.4	64	Eritrea	75.0	114	Kyrgyzstan	61.5
15	Norway	92.7	65	Central Afr. Rep.	74.8	115	Jordan	61.4
16	Georgia	92.7	66	Viet Nam	74.7	116	Botswana	61.4
17	Ghana	92.6	67	Angola	74.6	117	Bolivia	61.3
18	Laos	92.4	68	Algeria	74.6	118	Yemen	61.1
19	Sweden	91.6	69	United Kingdom	74.6	119	Israel	60.5
20	Lithuania	88.7	70	Italy	74.5	120	Indonesia	59.8
21	El Salvador	88.5	71	Myanmar	73.8	121	Syria	59.7
22	Uruguay	88.5	72	Spain	73.7	122	Luxembourg	59.0
23	Armenia	87.2	73	Niger	73.6	123	Guinea-Bissau	58.7
24	Colombia	87.1	74	Chad	73.3	124	Turkmenistan	58.2
25	Peru	87.1	75	Portugal	72.9	125	India	57.9
26	Latvia	86.9	76	Tanzania	72.8	126	Mongolia	57.5
27	France	85.7	77	South Korea	71.5	127	Mauritania	57.0
28	Sri Lanka	85.6	78	Mexico	71.5	128	United States	56.1
29	Nigeria	85.5	79	Slovakia	71.2	129	Cyprus	56.0
30	Haiti	84.1	80	Benin	71.2	130	Fiji	54.3
31	Kenya	84.1	81	Thailand	71.1	131	Swaziland	54.1
32	Brazil	83.3	82	New Zealand	71.1	132	Oman	53.6
33	Togo	82.4	83	Senegal	70.7	133	Mauritius	53.5
34	Mali	82.4	84	Japan	70.5	134	China	52.7
35	Iceland	82.3	85	Romania	70.4	135	South Africa	51.4
36	Argentina	82.3	86	Jamaica	70.0	136	Ukraine	51.1
37	Philippines	82.0	87	Ireland	69.7	137	Saudi Arabia	50.5
38	Guinea	81.8	88	Sierra Leone	69.6	138	Uzbekistan	46.9
39	Denmark	81.8	89	Belgium	69.5	139	Australia	42.5
40	Burundi	81.5	90	Canada	69.3	140	Djibouti	42.3
41	Gabon	81.4	91	Egypt	68.9	141	Solomon Islands	40.8
42	Zambia	81.0	92	Bosnia & Herz.	68.9	142	Lebanon	40.7
43	Guatemala	80.2	93	Venezuela	68.4	143	Iraq	40.6
44	Ecuador	80.1	94	Belarus	68.3	144	Belize	39.6
45	Austria	79.9	95	Zimbabwe	68.1	145	Kuwait	38.6
46	Madagascar	79.8	96	Sudan	67.9	146	Guyana	36.5
47	Hungary	79.4	97	Moldova	67.8	147	Trinidad & Tobago	28.7
48	Dominican Rep.	78.7	98	Pakistan	67.4	148	United Arab Em.	26.6
49	Chile	78.4	99	Turkey	66.5	149	Kazakhstan	16.1
50	Rwanda	78.0	100	Morocco	66.5			

Environmental Health, by Geographic Peer Group

Eastern Europe and Central Asia

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Slovakia	99.1	8	Czech Rep.	91.6	15	Turkmenistan	78.1
2	Hungary	98.4	9	Kazakhstan	91.5	16	Romania	77.8
3	Ukraine	97.0	10	Albania	89.3	17	Azerbaijan	76.4
4	Russia	96.3	11	Georgia	88.4	18	Kyrgyzstan	76.2
5	Belarus	95.4	12	Macedonia	86.1	19	Tajikistan	62.2
6	Bulgaria	94.7	13	Moldova	85.0			
7	Bosnia and Herz.	93.1	14	Uzbekistan	78.2			

East Asia and the Pacific

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Australia	99.3	7	Thailand	85.5	13	Mongolia	66.6
2	New Zealand	99.0	8	Philippines	82.5	14	Myanmar	63.9
3	Japan	98.3	9	Fiji	78.2	15	Solomon Islands	59.6
4	Malaysia	96.7	10	Viet Nam	76.3	16	Papua New Guinea	58.2
5	Taiwan	96.6	11	China	71.4	17	Laos	39.8
6	South Korea	95.6	12	Indonesia	69.5	18	Cambodia	39.1

Europe

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	United Kingdom	99.4	9	Denmark	99.3	17	Netherlands	98.1
2	Ireland	99.4	10	Luxembourg	99.3	18	Slovenia	97.8
3	Sweden	99.4	11	Switzerland	98.9	19	Estonia	97.7
4	Germany	99.4	12	Belgium	98.8	20	Greece	97.2
5	France	99.4	13	Italy	98.6	21	Croatia	96.6
6	Iceland	99.3	14	Portugal	98.4	22	Latvia	95.2
7	Finland	99.3	15	Spain	98.2	23	Lithuania	95.1
8	Norway	99.3	16	Austria	98.1	24	Poland	93.6

Middle East and North Africa

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Israel	97.9	8	United Arab Em.	89.8	15	Algeria	82.2
2	Cyprus	96.8	9	Iran	88.9	16	Egypt	79.6
3	Lebanon	95.5	10	Armenia	88.0	17	Iraq	67.1
4	Tunisia	92.9	11	Saudi Arabia	85.5	18	Yemen	48.2
5	Kuwait	92.0	12	Morocco	85.2	19	Sudan	47.0
6	Jordan	91.7	13	Oman	84.6			
7	Turkey	91.2	14	Syria	84.5			

South Asia

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Sri Lanka	78.8	3	Nepal	60.2	5	Bangladesh	53.6
2	India	62.6	4	Pakistan	54.6			

Subsaharan Africa

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Mauritius	97.7	14	Togo	52.0	27	Mauritania	33.2
2	South Africa	81.8	15	Congo	51.0	28	Rwanda	32.2
3	Gabon	75.4	16	Cameroon	47.7	29	Guinea	31.3
4	Botswana	68.6	17	Eritrea	47.2	30	Zambia	30.8
5	Zimbabwe	67.8	18	Uganda	41.6	31	Mozambique	25.5
6	Swaziland	61.1	19	Nigeria	40.6	32	Chad	18.4
7	Namibia	60.9	20	Benin	40.2	33	Sierra Leone	18.2

8	Ghana	59.0	21	Burundi	37.6	34	Burkina Faso	16.2
9	Senegal	58.4	22	Madagascar	37.6	35	Mali	13.4
10	Côte d'Ivoire	57.4	23	Guinea-Bissau	36.7	36	Dem. Rep. Congo	12.6
11	Djibouti	57.2	24	Central Afr. Rep.	35.2	37	Angola	8.9
12	Kenya	54.5	25	Ethiopia	35.0	38	Niger	6.0
13	Tanzania	52.2	26	Malawi	34.0			

Americas

Rank	Country	Score	Rank	Country	Score	Rank	Country	Score
1	Canada	98.9	10	Uruguay	88.9	19	Peru	78.3
2	United States	98.5	11	Dominican Rep.	88.8	20	Guatemala	78.2
3	Cuba	96.4	12	Venezuela	88.5	21	Honduras	77.2
4	Chile	93.3	13	Trinidad & Tobago	88.4	22	Guyana	75.3
5	Costa Rica	93.2	14	Jamaica	87.2	23	Paraguay	73.3
6	Ecuador	91.7	15	Brazil	86.9	24	Nicaragua	72.9
7	Colombia	91.4	16	Panama	86.4	25	Bolivia	61.2
8	Mexico	91.3	17	El Salvador	81.8	26	Haiti	50.1
9	Argentina	91.1	18	Belize	81.3			

APPENDIX B: INDICATOR TABLES BY PEER GROUP

Adequate Sanitation (ACSAT)
Target value: 100% coverage

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	100.0	100.0	51	Argentina	91.0	89.5	101	Azerbaijan	54.0	46.2
2	Austria	100.0	100.0	52	Chile	91.0	89.5	102	Zimbabwe	53.0	45.0
3	Belgium	100.0	100.0	53	Sri Lanka	91.0	89.5	103	Romania	51.5	43.3
4	Canada	100.0	100.0	54	Syria	90.0	88.3	104	Cameroon	51.0	42.7
5	Croatia	100.0	100.0	55	Ecuador	89.0	87.1	105	Tajikistan	51.0	42.7
6	Cyprus	100.0	100.0	56	Oman	88.0	86.0	106	Swaziland	48.0	39.2
7	Denmark	100.0	100.0	57	Turkey	88.0	86.0	107	Belize	47.0	38.0
8	Finland	100.0	100.0	58	Saudi Arabia	87.4	85.3	108	Nicaragua	47.0	38.0
9	France	100.0	100.0	59	Russia	87.0	84.8	109	Tanzania	47.0	38.0
10	Germany	100.0	100.0	60	Poland	86.5	84.2	110	Bolivia	46.0	36.8
11	Greece	100.0	100.0	61	Lithuania	86.2	83.9	111	Mali	46.0	36.8
12	Iceland	100.0	100.0	62	Colombia	86.0	83.6	112	China	44.0	34.5
13	Ireland	100.0	100.0	63	Guatemala	86.0	83.6	113	Nigeria	44.0	34.5
14	Israel	100.0	100.0	64	Tunisia	85.0	82.5	114	Papua New Guin.	44.0	34.5
15	Italy	100.0	100.0	65	Belarus	84.0	81.3	115	Kenya	43.0	33.3
16	Japan	100.0	100.0	66	Armenia	83.0	80.1	116	Uganda	43.0	33.3
17	Kuwait	100.0	100.0	67	Iran	83.0	80.1	117	Yemen	43.0	33.3
18	Luxembourg	100.0	100.0	68	Djibouti	82.0	78.9	118	Botswana	42.0	32.2
19	Netherlands	100.0	100.0	69	Jamaica	80.0	76.6	119	Rwanda	42.0	32.2
20	New Zealand	100.0	100.0	70	Paraguay	80.0	76.6	120	Bangladesh	39.0	28.7
21	Norway	100.0	100.0	71	Iraq	79.0	75.4	121	Sierra Leone	39.0	28.7
22	Portugal	100.0	100.0	72	Mexico	79.0	75.4	122	Côte d'Ivoire	37.0	26.3
23	Slovenia	100.0	100.0	73	Dominican Rep.	78.0	74.3	123	Burundi	36.0	25.1
24	South Korea	100.0	100.0	74	Latvia	78.0	74.3	124	Gabon	36.0	25.1
25	Spain	100.0	100.0	75	Myanmar	77.0	73.1	125	Guinea-Bissau	35.0	24.0
26	Sweden	100.0	100.0	76	Brazil	75.0	70.8	126	Nepal	35.0	24.0
27	Switzerland	100.0	100.0	77	Macedonia	73.2	68.6	127	Togo	35.0	24.0
28	Taiwan	100.0	100.0	78	Morocco	73.0	68.4	128	Mauritania	34.0	22.8
29	Trin. & Tob.	100.0	100.0	79	Panama	73.0	68.4	129	Sudan	34.0	22.8
30	United Kingdom	100.0	100.0	80	Fiji	72.0	67.3	130	Benin	33.0	21.6
31	United States	100.0	100.0	81	Kazakhstan	72.0	67.3	131	India	33.0	21.6
32	Uruguay	100.0	100.0	82	Philippines	72.0	67.3	132	Madagascar	32.0	20.5
33	Bulgaria	99.0	98.8	83	Egypt	70.0	64.9	133	Mozambique	32.0	20.5
34	Slovakia	99.0	98.8	84	Guyana	70.0	64.9	134	Angola	31.0	19.3
35	Thailand	99.0	98.8	85	Honduras	69.0	63.7	135	Solomon Islands	31.0	19.3
36	Cuba	98.0	97.7	86	Moldova	68.0	62.6	136	Dem. Rep. Congo	30.0	18.1
37	Czech Rep.	98.0	97.7	87	Venezuela	68.0	62.6	137	Haiti	30.0	18.1
38	Lebanon	98.0	97.7	88	Uzbekistan	67.0	61.4	138	Laos	30.0	18.1
39	United Arab Em.	98.0	97.7	89	South Africa	65.0	59.1	139	Central Afr. Rep.	27.0	14.6
40	Estonia	97.0	96.5	90	Peru	63.0	56.7	140	Congo	27.0	14.6
41	Ukraine	96.0	95.3	91	El Salvador	62.0	55.6	141	Namibia	25.0	12.3
42	Bosnia & Herz.	95.0	94.2	92	Turkmenistan	62.0	55.6	142	Ghana	18.0	4.1
43	Hungary	95.0	94.2	93	Malawi	61.0	54.4	143	Guinea	18.0	4.1
44	Georgia	94.0	93.0	94	Viet Nam	61.0	54.4	144	Cambodia	17.0	2.9
45	Malaysia	94.0	93.0	95	Kyrgyzstan	59.0	52.0	145	Burkina Faso	13.0	0.0
46	Mauritius	94.0	93.0	96	Mongolia	59.0	52.0	146	Chad	9.0	0.0
47	Jordan	93.0	91.8	97	Pakistan	59.0	52.0	147	Eritrea	9.0	0.0
48	Algeria	92.0	90.6	98	Senegal	57.0	49.7	148	Ethiopia	13.0	0.0
49	Costa Rica	92.0	90.6	99	Indonesia	55.0	47.4	149	Niger	13.0	0.0
50	Albania	91.0	89.5	100	Zambia	55.0	47.4				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Canada	100.0	100.0	10	Colombia	86.0	83.6	19	Honduras	69.0	63.7
1	Trin. & Tob.	100.0	100.0	10	Guatemala	86.0	83.6	20	Venezuela	68.0	62.6
1	United States	100.0	100.0	12	Jamaica	80.0	76.6	21	Peru	63.0	56.7
1	Uruguay	100.0	100.0	12	Paraguay	80.0	76.6	22	El Salvador	62.0	55.6
5	Cuba	98.0	97.7	14	Mexico	79.0	75.4	23	Belize	47.0	38.0
6	Costa Rica	92.0	90.6	15	Dom. Rep.	78.0	74.3	23	Nicaragua	47.0	38.0
7	Argentina	91.0	89.5	16	Brazil	75.0	70.8	25	Bolivia	46.0	36.8
7	Chile	91.0	89.5	17	Panama	73.0	68.4	26	Haiti	30.0	18.1
9	Ecuador	89.0	87.1	18	Guyana	70.0	64.9				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Bulgaria	99.0	98.8	8	Albania	91.0	89.5	15	Turkmenistan	62.0	55.6
1	Slovakia	99.0	98.8	9	Russia	87.0	84.8	16	Kyrgyzstan	59.0	52.0
3	Czech Rep.	98.0	97.7	10	Belarus	84.0	81.3	17	Azerbaijan	54.0	46.2
4	Ukraine	96.0	95.3	11	Macedonia	73.2	68.6	18	Romania	51.5	43.3
5	Bosnia & Herz.	95.0	94.2	12	Kazakhstan	72.0	67.3	19	Tajikistan	51.0	42.7
5	Hungary	95.0	94.2	13	Moldova	68.0	62.6				
7	Georgia	94.0	93.0	14	Uzbekistan	67.0	61.4				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	100.0	100.0	7	Malaysia	94.0	93.0	13	Indonesia	55.0	47.4
1	Japan	100.0	100.0	8	Myanmar	77.0	73.1	14	China	44.0	34.5
1	New Zealand	100.0	100.0	9	Philippines	72.0	67.3	15	Papua New Guin.	44.0	34.5
1	Taiwan	100.0	100.0	10	Fiji	72.0	67.3	16	Solomon Isl.	31.0	19.3
1	South Korea	100.0	100.0	11	Viet Nam	61.0	54.4	17	Laos	30.0	18.1
6	Thailand	99.0	98.8	12	Mongolia	59.0	52.0	18	Cambodia	17.0	2.9

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	100.0	100.0	1	Greece	100.0	100.0	1	Sweden	100.0	100.0
1	Belgium	100.0	100.0	1	Iceland	100.0	100.0	1	Switzerland	100.0	100.0
1	Croatia	100.0	100.0	1	Ireland	100.0	100.0	1	U.K.	100.0	100.0
1	Cyprus	100.0	100.0	1	Italy	100.0	100.0	22	Estonia	97.0	96.5
1	Finland	100.0	100.0	1	Luxembourg	100.0	100.0	23	Poland	86.5	84.2
1	France	100.0	100.0	1	Portugal	100.0	100.0	24	Lithuania	86.2	83.9
1	Germany	100.0	100.0	1	Spain	100.0	100.0	25	Latvia	78.0	74.3

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Israel	100.0	100.0	7	Syria	90.0	88.3	13	Armenia	83.0	80.1
1	Kuwait	100.0	100.0	8	Oman	88.0	86.0	14	Iraq	79.0	75.4
3	Lebanon	98.0	97.7	8	Turkey	88.0	86.0	15	Morocco	73.0	68.4
3	United Arab Em.	98.0	97.7	10	Saudi Arabia	87.4	85.3	16	Egypt	70.0	64.9
5	Jordan	93.0	91.8	11	Tunisia	85.0	82.5	17	Yemen	43.0	33.3
6	Algeria	92.0	90.6	12	Iran	83.0	80.1	18	Sudan	34.0	22.8

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	91.0	89.5	3	Bangladesh	39.0	28.7	5	India	33.0	21.6
2	Pakistan	59.0	52.0	4	Nepal	35.0	24.0				

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Mauritius	94.0	93.0	14	Uganda	43.0	33.3	27	Angola	31.0	19.3
2	Djibouti	82.0	78.9	15	Botswana	42.0	32.2	28	Dem. Rep. Congo	30.0	18.1
3	South Africa	65.0	59.1	16	Rwanda	42.0	32.2	29	Congo	27.0	14.6
4	Malawi	61.0	54.4	17	Sierra Leone	39.0	28.7	30	Central Afr. Rep.	27.0	14.6
5	Senegal	57.0	49.7	18	Côte d'Ivoire	37.0	26.3	31	Namibia	25.0	12.3
6	Zambia	55.0	47.4	19	Gabon	36.0	25.1	32	Ghana	18.0	4.1
7	Zimbabwe	53.0	45.0	20	Burundi	36.0	25.1	33	Guinea	18.0	4.1
8	Cameroon	51.0	42.7	21	Togo	35.0	24.0	34	Burkina Faso	13.0	0.0
9	Swaziland	48.0	39.2	22	Guinea-Bissau	35.0	24.0	34	Chad	9.0	0.0
10	Tanzania	47.0	38.0	23	Mauritania	34.0	22.8	34	Eritrea	9.0	0.0
11	Mali	46.0	36.8	24	Benin	33.0	21.6	34	Ethiopia	13.0	0.0
12	Nigeria	44.0	34.5	25	Madagascar	32.0	20.5	34	Niger	13.0	0.0
13	Kenya	43.0	33.3	26	Mozambique	32.0	20.5				

Drinking Water (WATSUP)
Target value: 100%

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	100.0	100.0	51	Turkey	96.0	93.2	101	Sri Lanka	79.0	64.3
2	Austria	100.0	100.0	52	Ukraine	96.0	93.2	102	Myanmar	78.0	62.6
3	Belarus	100.0	100.0	53	Botswana	95.0	91.5	103	Azerbaijan	77.0	61.0
4	Belgium	100.0	100.0	54	Chile	95.0	91.5	104	China	77.0	61.0
5	Canada	100.0	100.0	55	Dominican Rep.	95.0	91.5	105	Indonesia	77.0	61.0
6	Croatia	100.0	100.0	56	Guatemala	95.0	91.5	106	Kyrgyzstan	77.0	61.0
7	Cyprus	100.0	100.0	57	Ecuador	94.0	89.8	107	Senegal	76.0	59.3
8	Czech Rep.	100.0	100.0	58	Iran	94.0	89.8	108	Central Afr. Rep.	75.0	57.6
9	Denmark	100.0	100.0	59	Poland	93.2	88.4	109	Ghana	75.0	57.6
10	Estonia	100.0	100.0	60	Lithuania	93.0	88.1	110	Bangladesh	74.0	55.9
11	Finland	100.0	100.0	61	Colombia	93.0	88.1	111	Rwanda	74.0	55.9
12	France	100.0	100.0	62	Jamaica	93.0	88.1	112	Djibouti	73.0	54.2
13	Germany	100.0	100.0	63	Syria	93.0	88.1	113	Malawi	73.0	54.2
14	Greece	100.0	100.0	64	Tunisia	93.0	88.1	114	Turkmenistan	72.0	52.5
15	Iceland	100.0	100.0	65	Armenia	92.0	86.4	115	Solomon Islands	70.0	49.1
16	Ireland	100.0	100.0	66	Moldova	92.0	86.4	116	Sudan	70.0	49.1
17	Israel	100.0	100.0	67	Saudi Arabia	92.0	86.4	117	Benin	67.0	44.0
18	Italy	100.0	100.0	68	South Korea	92.0	86.4	118	Yemen	67.0	44.0
19	Japan	100.0	100.0	69	Belize	91.0	84.7	119	Cameroon	66.0	42.3
20	Kuwait	100.0	100.0	70	Cuba	91.0	84.7	120	Mongolia	62.0	35.5
21	Lebanon	100.0	100.0	71	Pakistan	91.0	84.7	121	Swaziland	62.0	35.5
22	Luxembourg	100.0	100.0	72	Trin. & Tob.	91.0	84.7	122	Tanzania	62.0	35.5
23	Mauritius	100.0	100.0	73	Brazil	90.0	83.0	123	Burkina Faso	61.0	33.8
24	Netherlands	100.0	100.0	74	Nepal	90.0	83.0	124	Kenya	61.0	33.8
25	New Zealand	100.0	100.0	75	Panama	90.0	83.0	125	Eritrea	60.0	32.1
26	Norway	100.0	100.0	76	Gabon	88.0	79.6	126	Uganda	60.0	32.1
27	Portugal	100.0	100.0	77	South Africa	88.0	79.6	127	Guinea-Bissau	59.0	30.4
28	Slovakia	100.0	100.0	78	Honduras	87.0	77.9	128	Tajikistan	59.0	30.4
29	Slovenia	100.0	100.0	79	Namibia	87.0	77.9	129	Congo	58.0	28.7
30	Spain	100.0	100.0	80	India	86.0	76.2	130	Zambia	58.0	28.7
31	Sweden	100.0	100.0	81	Kazakhstan	86.0	76.2	131	Romania	57.0	27.0
32	Switzerland	100.0	100.0	82	Paraguay	86.0	76.2	132	Sierra Leone	57.0	27.0
33	Taiwan	100.0	100.0	83	Macedonia	85.1	74.8	133	Haiti	54.0	21.9
34	United Arab Em.	100.0	100.0	84	Algeria	85.0	74.5	134	Angola	53.0	20.2
35	United Kingdom	100.0	100.0	85	Bolivia	85.0	74.5	135	Mauritania	53.0	20.2
36	United States	100.0	100.0	86	Philippines	85.0	74.5	136	Togo	52.0	18.5
37	Uruguay	100.0	100.0	87	Viet Nam	85.0	74.5	137	Laos	51.0	16.8
38	Bulgaria	99.0	98.3	88	Côte d'Ivoire	84.0	72.8	138	Guinea	50.0	15.1
39	Hungary	99.0	98.3	89	El Salvador	84.0	72.8	139	Madagascar	50.0	15.1
40	Latvia	99.0	98.3	90	Guyana	83.0	71.1	140	Mali	50.0	15.1
41	Malaysia	99.0	98.3	91	Peru	83.0	71.1	141	Nigeria	48.0	11.7
42	Thailand	99.0	98.3	92	Venezuela	83.0	71.1	142	Fiji	47.0	10.0
43	Egypt	98.0	96.6	93	Georgia	82.0	69.4	143	Dem. Rep. Congo	46.0	8.3
44	Bosnia & Herz.	97.0	94.9	94	Oman	82.0	69.4	144	Niger	46.0	8.3
45	Costa Rica	97.0	94.9	95	Uzbekistan	82.0	69.4	145	Mozambique	43.0	3.2
46	Jordan	97.0	94.9	96	Iraq	81.0	67.7	146	Chad	42.0	1.5
47	Mexico	97.0	94.9	97	Morocco	81.0	67.7	147	Cambodia	41.0	0.0
48	Russia	97.0	94.9	98	Zimbabwe	81.0	67.7	148	Ethiopia	22.0	0.0
49	Albania	96.0	93.2	99	Burundi	79.0	64.3	149	Papua New Guin.	39.0	0.0
50	Argentina	96.0	93.2	100	Nicaragua	79.0	64.3				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Canada	100.0	100.0	10	Ecuador	94.0	89.8	19	Paraguay	86.0	76.2
1	Uruguay	100.0	100.0	11	Belize	93.0	88.1	20	Bolivia	85.0	74.5
1	United States	100.0	100.0	11	Colombia	93.0	88.1	21	El Salvador	84.0	72.8
4	Costa Rica	97.0	94.9	11	Cuba	91.0	84.7	22	Guyana	83.0	71.1
4	Mexico	97.0	94.9	11	Jamaica	91.0	84.7	22	Peru	83.0	71.1
6	Argentina	96.0	93.2	11	Trin. & Tob.	91.0	84.7	22	Venezuela	83.0	71.1
7	Chile	95.0	91.5	16	Brazil	90.0	83.0	25	Nicaragua	79.0	64.3
7	Dominican Rep.	95.0	91.5	16	Panama	90.0	83.0	26	Haiti	54.0	21.9
7	Guatemala	95.0	91.5	18	Honduras	87.0	77.9				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belarus	100.0	100.0	8	Albania	96.0	93.2	15	Azerbaijan	77.0	61.0
1	Czech Rep.	100.0	100.0	8	Ukraine	96.0	93.2	15	Kyrgyzstan	77.0	61.0
1	Slovakia	100.0	100.0	10	Moldova	92.0	86.4	17	Turkmenistan	72.0	52.5
4	Bulgaria	99.0	98.3	11	Kazakhstan	86.0	76.2	18	Tajikistan	59.0	30.4
4	Hungary	99.0	98.3	12	Macedonia	85.1	74.8	19	Romania	57.0	27.0
6	Bosnia and Herz.	97.0	94.9	13	Georgia	82.0	69.4				
6	Russia	97.0	94.9	14	Uzbekistan	82.0	69.4				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	100.0	100.0	7	South Korea	92.0	86.4	13	Solomon Islands	70.0	49.1
1	Japan	100.0	100.0	8	Philippines	85.0	74.5	14	Mongolia	62.0	35.5
1	New Zealand	100.0	100.0	8	Viet Nam	85.0	74.5	15	Laos	51.0	16.8
1	Taiwan	100.0	100.0	10	Myanmar	78.0	62.6	16	Fiji	47.0	10.0
5	Malaysia	99.0	98.3	11	China	77.0	61.0	17	Papua New Guin.	39.0	0.0
5	Thailand	99.0	98.3	11	Indonesia	77.0	61.0	18	Cambodia	41.0	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	100.0	100.0	1	Greece	100.0	100.0	1	Spain	100.0	100.0
1	Belgium	100.0	100.0	1	Iceland	100.0	100.0	1	Sweden	100.0	100.0
1	Croatia	100.0	100.0	1	Ireland	100.0	100.0	1	Switzerland	100.0	100.0
1	Cyprus	100.0	100.0	1	Italy	100.0	100.0	1	United Kingdom	100.0	100.0
1	Denmark	100.0	100.0	1	Luxembourg	100.0	100.0	23	Latvia	99.0	98.3
1	Estonia	100.0	100.0	1	Netherlands	100.0	100.0	24	Poland	93.2	88.4
1	Finland	100.0	100.0	1	Norway	100.0	100.0	25	Lithuania	93.0	88.1
1	France	100.0	100.0	1	Portugal	100.0	100.0				
1	Germany	100.0	100.0	1	Slovenia	100.0	100.0				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Israel	100.0	100.0	7	Turkey	96.0	93.2	13	Algeria	85.0	74.5
2	Lebanon	100.0	100.0	8	Iran	94.0	89.8	14	Oman	82.0	69.4
3	Kuwait	100.0	100.0	9	Tunisia	93.0	88.1	15	Morocco	81.0	67.7
4	United Arab Em.	100.0	100.0	10	Syria	93.0	88.1	16	Iraq	81.0	67.7
5	Egypt	98.0	96.6	11	Armenia	92.0	86.4	17	Sudan	70.0	49.1
6	Jordan	97.0	94.9	12	Saudi Arabia	92.0	86.4	18	Yemen	67.0	44.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	79.0	64.3	3	Nepal	90.0	83.0	5	Bangladesh	74.0	55.9

2	India	86.0	76.2	4	Pakistan	91.0	84.7

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Mauritius	100.0	100.0	13	Malawi	73.0	54.2	25	Angola	53.0	20.2
2	Botswana	95.0	91.5	14	Benin	67.0	44.0	25	Mauritania	53.0	20.2
3	South Africa	88.0	79.6	15	Cameroon	66.0	42.3	27	Togo	52.0	18.5
4	Gabon	88.0	79.6	16	Swaziland	62.0	35.5	28	Guinea	50.0	15.1
5	Namibia	87.0	77.9	16	Tanzania	62.0	35.5	28	Madagascar	50.0	15.1
6	Côte d'Ivoire	84.0	72.8	18	Burkina Faso	61.0	33.8	28	Mali	50.0	15.1
7	Zimbabwe	81.0	67.7	19	Kenya	61.0	33.8	31	Nigeria	48.0	11.7
8	Burundi	79.0	64.3	20	Eritrea	60.0	32.1	32	Dem. Rep. Congo	46.0	8.3
9	Senegal	76.0	59.3	20	Uganda	60.0	32.1	32	Niger	46.0	8.3
10	Ghana	75.0	57.6	22	Guinea-Bissau	59.0	30.4	34	Mozambique	43.0	3.2
11	Central Afr. Rep.	75.0	57.6	23	Congo	58.0	28.7	35	Chad	42.0	1.5
12	Rwanda	74.0	55.9	23	Zambia	58.0	28.7	36	Ethiopia	22.0	0.0

Disability Adjusted Life Years (DALY) Due to the Environmental Burden of Disease
Target value: 0

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	0.1	99.8	51	Malaysia	1.0	98.2	101	Mongolia	11.0	80.2
2	Czech Rep.	0.1	99.8	52	Mauritius	1.0	98.2	102	Congo	13.0	76.6
3	France	0.1	99.8	53	Oman	1.0	98.2	103	India	13.0	76.6
4	Germany	0.1	99.8	54	Poland	1.0	98.2	104	Namibia	13.0	76.6
5	Ireland	0.1	99.8	55	Saudi Arabia	1.0	98.2	105	Papua New Guin.	13.0	76.6
6	Israel	0.1	99.8	56	Trin. & Tob.	1.0	98.2	106	Bangladesh	14.0	74.8
7	Italy	0.1	99.8	57	Uruguay	1.0	98.2	107	Ghana	14.0	74.8
8	Kuwait	0.1	99.8	58	Uzbekistan	1.0	98.2	108	Solomon Islands	14.0	74.8
9	Sweden	0.1	99.8	59	Argentina	1.1	98.0	109	Zimbabwe	14.0	74.8
10	Switzerland	0.1	99.8	60	Sri Lanka	1.5	97.3	110	Bolivia	15.0	73.0
11	United Kingdom	0.1	99.8	61	Fiji	2.0	96.4	111	Myanmar	15.0	73.0
12	Taiwan	0.1	99.8	62	Jamaica	2.0	96.4	112	Iraq	17.0	69.4
13	Australia	0.2	99.6	63	Lebanon	2.0	96.4	113	Swaziland	17.0	69.4
14	Belgium	0.2	99.6	64	Mexico	2.0	96.4	114	Sudan	18.0	67.6
15	Bulgaria	0.2	99.6	65	Thailand	2.0	96.4	115	Togo	18.0	67.6
16	Canada	0.2	99.6	66	Tunisia	2.0	96.4	116	Eritrea	20.0	63.9
17	Croatia	0.2	99.6	67	China	3.0	94.6	117	Haiti	20.0	63.9
18	Denmark	0.2	99.6	68	Colombia	3.0	94.6	118	Nepal	20.0	63.9
19	Estonia	0.2	99.6	69	Panama	3.0	94.6	119	Pakistan	22.0	60.3
20	Finland	0.2	99.6	70	Turkey	3.0	94.6	120	Senegal	22.0	60.3
21	Hungary	0.2	99.6	71	Venezuela	3.0	94.6	121	Kenya	23.0	58.5
22	Iceland	0.2	99.6	72	Brazil	3.6	93.5	122	Cambodia	25.0	54.9
23	Japan	0.2	99.6	73	Azerbaijan	3.9	93.0	123	Tanzania	26.0	53.1
24	Luxembourg	0.2	99.6	74	Iran	4.0	92.8	124	Cameroon	27.0	51.3
25	Netherlands	0.2	99.6	75	Jordan	4.0	92.8	125	Ethiopia	28.0	49.5
26	Norway	0.2	99.6	76	Macedonia	4.0	92.8	126	Laos	28.0	49.5
27	Slovakia	0.2	99.6	77	Romania	4.0	92.8	127	Côte d'Ivoire	29.0	47.7
28	Spain	0.2	99.6	78	Syria	4.0	92.8	128	Yemen	29.0	47.7
29	United States	0.2	99.6	79	Viet Nam	4.0	92.8	129	Nigeria	32.0	42.3
30	Albania	0.3	99.5	80	Belize	4.4	92.1	130	Benin	33.0	40.5
31	Belarus	0.3	99.5	81	Dominican Rep.	5.0	91.0	131	Guinea	33.0	40.5
32	Bosnia & Herz.	0.3	99.5	82	Ecuador	5.0	91.0	132	Guinea-Bissau	33.0	40.5
33	Georgia	0.3	99.5	83	El Salvador	5.0	91.0	133	Madagascar	33.0	40.5
34	Latvia	0.3	99.5	84	Indonesia	5.0	91.0	134	Central Afr. Rep.	35.0	36.9
35	Russia	0.3	99.5	85	Kyrgyzstan	5.0	91.0	135	Djibouti	35.0	36.9
36	Ukraine	0.3	99.5	86	Paraguay	5.0	91.0	136	Uganda	35.0	36.9
37	Moldova	0.4	99.3	87	Philippines	5.0	91.0	137	Mauritania	38.0	31.5
38	Cyprus	0.5	99.1	88	Egypt	6.0	89.2	138	Chad	40.0	27.9
39	Greece	0.5	99.1	89	Peru	6.0	89.2	139	Burundi	41.0	26.1
40	New Zealand	0.5	99.1	90	Botswana	6.6	88.1	140	Zambia	42.0	24.3
41	Portugal	0.5	99.1	91	Morocco	7.0	87.4	141	Malawi	47.0	15.3
42	Slovenia	0.5	99.1	92	Turkmenistan	7.0	87.4	142	Mozambique	47.0	15.3
43	South Korea	0.5	99.1	93	Algeria	8.0	85.6	143	Rwanda	47.0	15.3
44	United Arab Em.	0.6	98.9	94	Honduras	8.0	85.6	144	Burkina Faso	51.0	8.1
45	Armenia	1.0	98.2	95	Nicaragua	8.0	85.6	145	Mali	53.0	4.5
46	Chile	1.0	98.2	96	Guatemala	9.0	83.8	146	Angola	109.0	0.0
47	Costa Rica	1.0	98.2	97	South Africa	9.0	83.8	147	Dem. Rep. Congo	64.0	0.0
48	Cuba	1.0	98.2	98	Gabon	10.0	82.0	148	Niger	65.0	0.0
49	Kazakhstan	1.0	98.2	99	Guyana	10.0	82.0	149	Sierra Leone	78.0	0.0
50	Lithuania	1.0	98.2	100	Tajikistan	10.0	82.0				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Canada	0.2	99.6	10	Jamaica	2.0	96.4	16	Paraguay	5.0	91.0
1	United States	0.2	99.6	11	Colombia	3.0	94.6	20	Peru	6.0	89.2
3	Chile	1.0	98.2	11	Venezuela	3.0	94.6	21	Honduras	8.0	85.6
3	Costa Rica	1.0	98.2	13	Panama	3.0	94.6	21	Nicaragua	8.0	85.6
3	Cuba	1.0	98.2	14	Brazil	3.6	93.5	23	Guatemala	9.0	83.8
3	Trin. & Tob.	1.0	98.2	15	Belize	4.4	92.1	24	Guyana	10.0	82.0
3	Uruguay	1.0	98.2	16	Dominican Rep.	5.0	91.0	25	Bolivia	15.0	73.0
8	Argentina	1.1	98.0	16	Ecuador	5.0	91.0	26	Haiti	20.0	63.9
9	Mexico	2.0	96.4	16	El Salvador	5.0	91.0				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Czech Rep.	0.1	99.8	5	Georgia	0.3	99.5	15	Macedonia	4.0	92.8
2	Bulgaria	0.2	99.6	5	Russia	0.3	99.5	16	Romania	4.0	92.8
2	Hungary	0.2	99.6	5	Ukraine	0.3	99.5	17	Kyrgyzstan	5.0	91.0
2	Slovakia	0.2	99.6	11	Moldova	0.4	99.3	18	Turkmenistan	7.0	87.4
5	Albania	0.3	99.5	12	Kazakhstan	1.0	98.2	19	Tajikistan	10.0	82.0
5	Belarus	0.3	99.5	12	Uzbekistan	1.0	98.2				
5	Bosnia & Herz.	0.3	99.5	14	Azerbaijan	3.9	93.0				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Taiwan	0.1	99.8	7	Fiji	2.0	96.4	13	Mongolia	11.0	80.2
2	Japan	0.2	99.6	7	Thailand	2.0	96.4	14	Papua New Guin.	13.0	76.6
3	Australia	0.2	99.6	9	China	3.0	94.6	15	Solomon Islands	14.0	74.8
4	South Korea	0.5	99.1	10	Viet Nam	4.0	92.8	16	Myanmar	15.0	73.0
5	New Zealand	0.5	99.1	11	Indonesia	5.0	91.0	17	Cambodia	25.0	54.9
6	Malaysia	1.0	98.2	11	Philippines	5.0	91.0	18	Laos	28.0	49.5

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	0.1	99.8	9	Croatia	0.2	99.6	19	Latvia	0.3	99.5
1	France	0.1	99.8	9	Denmark	0.2	99.6	20	Cyprus	0.5	99.1
1	Germany	0.1	99.8	9	Estonia	0.2	99.6	20	Greece	0.5	99.1
1	Ireland	0.1	99.8	9	Finland	0.2	99.6	20	Portugal	0.5	99.1
1	Italy	0.1	99.8	9	Iceland	0.2	99.6	20	Slovenia	0.5	99.1
1	Sweden	0.1	99.8	9	Luxembourg	0.2	99.6	24	Lithuania	1.0	98.2
1	Switzerland	0.1	99.8	9	Netherlands	0.2	99.6	24	Poland	1.0	98.2
1	United Kingdom	0.1	99.8	9	Norway	0.2	99.6				
9	Belgium	0.2	99.6	9	Spain	0.2	99.6				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Israel	0.1	99.8	7	Lebanon	2.0	96.4	13	Egypt	6.0	89.2
1	Kuwait	0.1	99.8	8	Jordan	2.0	94.6	14	Morocco	7.0	87.4
3	United Arab Em.	0.6	98.9	8	Tunisia	3.0	94.6	15	Algeria	8.0	85.6
4	Armenia	1.0	98.2	8	Turkey	4.0	94.6	16	Iraq	17.0	69.4
4	Oman	1.0	98.2	11	Iran	4.0	93.5	17	Sudan	18.0	67.6
4	Saudi Arabia	1.0	98.2	12	Syria	4.0	92.1	18	Yemen	29.0	47.7

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	1.5	97.3	3	Bangladesh	14.0	74.8	5	Pakistan	22.0	60.3

2	India	13.0	76.6	4	Nepal	20.0	63.9

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Mauritius	1.0	98.2	14	Tanzania	26.0	53.1	27	Chad	40.0	27.9
2	Botswana	6.6	88.1	15	Cameroon	27.0	51.3	28	Burundi	41.0	26.1
3	South Africa	9.0	83.8	16	Ethiopia	28.0	49.5	29	Zambia	42.0	24.3
4	Gabon	10.0	82.0	17	Côte d'Ivoire	29.0	47.7	30	Malawi	47.0	15.3
5	Namibia	13.0	76.6	18	Nigeria	32.0	42.3	31	Rwanda	47.0	15.3
6	Congo	13.0	76.6	19	Benin	33.0	40.5	32	Mozambique	47.0	15.3
7	Ghana	14.0	74.8	19	Guinea	33.0	40.5	33	Burkina Faso	51.0	8.1
7	Zimbabwe	14.0	74.8	19	Guinea-Bissau	33.0	40.5	34	Mali	53.0	4.5
9	Swaziland	17.0	69.4	19	Madagascar	33.0	40.5	35	Angola	109.0	0.0
10	Togo	18.0	67.6	23	Djibouti	35.0	36.9	35	Dem. Rep. Congo	64.0	0.0
11	Eritrea	20.0	63.9	23	Central Afr. Rep.	35.0	36.9	35	Niger	65.0	0.0
12	Senegal	22.0	60.3	23	Uganda	35.0	36.9	35	Sierra Leone	78.0	0.0
13	Kenya	23.0	58.5	26	Mauritania	38.0	31.5				

Indoor Air Pollution, percentage of households using solid fuels (INDOOR)
Target value: 0%

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Taiwan	0.0	100.0	51	Uruguay	5.0	94.7	101	Namibia	64.5	32.1
2	Algeria	5.0	94.7	52	Venezuela	5.0	94.7	102	Botswana	65.0	31.6
3	Argentina	5.0	94.7	53	Morocco	5.2	94.5	103	Nigeria	67.0	29.5
4	Australia	5.0	94.7	54	Djibouti	5.3	94.4	104	Sri Lanka	67.1	29.4
5	Austria	5.0	94.7	55	Ukraine	6.5	93.2	105	Viet Nam	69.6	26.7
6	Belgium	5.0	94.7	56	Slovenia	8.0	91.6	106	Zimbabwe	71.6	24.6
7	Canada	5.0	94.7	57	Trin. & Tob.	8.0	91.6	107	Thailand	72.0	24.2
8	Chile	5.0	94.7	58	Russia	8.8	90.7	108	Uzbekistan	72.0	24.2
9	Cuba	5.0	94.7	59	Latvia	10.2	89.3	109	Indonesia	72.2	24.0
10	Cyprus	5.0	94.7	60	Turkey	11.0	88.4	110	Czech Rep.	73.7	22.4
11	Denmark	5.0	94.7	61	Côte d'Ivoire	12.3	87.1	111	Tanzania	74.5	21.6
12	Ecuador	5.0	94.7	62	Brazil	12.9	86.4	112	Kyrgyzstan	76.0	20.0
13	Egypt	5.0	94.7	63	Mexico	14.2	85.1	113	Eritrea	79.7	16.1
14	Finland	5.0	94.7	64	Dominican Rep.	15.1	84.1	114	China	80.0	15.8
15	France	5.0	94.7	65	Estonia	16.4	82.7	115	Mozambique	80.0	15.8
16	Germany	5.0	94.7	66	Bulgaria	17.0	82.1	116	Nepal	81.0	14.7
17	Greece	5.0	94.7	67	South Africa	17.9	81.2	117	Pakistan	81.0	14.7
18	Hungary	5.0	94.7	68	Belarus	19.0	80.0	118	India	81.8	13.9
19	Iceland	5.0	94.7	69	Colombia	19.5	79.5	119	Cameroon	82.8	12.8
20	Iran	5.0	94.7	70	Croatia	21.0	77.9	120	Congo	85.0	10.5
21	Iraq	5.0	94.7	71	Romania	22.9	75.9	121	Ghana	87.0	8.4
22	Ireland	5.0	94.7	72	Costa Rica	23.0	75.8	122	Togo	87.3	8.1
23	Israel	5.0	94.7	73	Armenia	26.4	72.2	123	Zambia	87.3	8.1
24	Italy	5.0	94.7	74	Gabon	27.6	70.9	124	Bangladesh	88.9	6.4
25	Japan	5.0	94.7	75	Macedonia	30.0	68.4	125	Papua New Guin.	89.7	5.6
26	Jordan	5.0	94.7	76	Syria	32.0	66.3	126	Sierra Leone	92.0	3.2
27	Kazakhstan	5.0	94.7	77	El Salvador	33.0	65.3	127	Benin	94.6	0.4
28	Kuwait	5.0	94.7	78	Panama	33.0	65.3	128	Angola	95.0	0.0
29	Lebanon	5.0	94.7	79	Peru	33.2	65.1	129	Burkina Faso	95.0	0.0
30	Lithuania	5.0	94.7	80	Bolivia	34.4	63.8	130	Burundi	95.0	0.0
31	Luxembourg	5.0	94.7	81	Fiji	40.0	57.9	131	Cambodia	95.0	0.0
32	Malaysia	5.0	94.7	82	Yemen	41.6	56.2	132	Central Afr. Rep.	95.0	0.0
33	Mauritius	5.0	94.7	83	Belize	43.0	54.7	133	Chad	95.0	0.0
34	Netherlands	5.0	94.7	84	Georgia	43.0	54.7	134	Dem. Rep. Congo	95.0	0.0
35	New Zealand	5.0	94.7	85	Philippines	44.6	53.1	135	Ethiopia	95.0	0.0
36	Norway	5.0	94.7	86	Jamaica	45.0	52.6	136	Guinea	95.0	0.0
37	Oman	5.0	94.7	87	Azerbaijan	49.0	48.4	137	Guinea-Bissau	95.0	0.0
38	Poland	5.0	94.7	88	Bosnia & Herz.	49.7	47.7	138	Haiti	95.0	0.0
39	Portugal	5.0	94.7	89	Albania	50.0	47.4	139	Laos	95.0	0.0
40	Saudi Arabia	5.0	94.7	90	Mongolia	51.0	46.3	140	Madagascar	95.0	0.0
41	Slovakia	5.0	94.7	91	Paraguay	52.8	44.4	141	Malawi	95.0	0.0
42	South Korea	5.0	94.7	92	Senegal	53.0	44.2	142	Mali	95.0	0.0
43	Spain	5.0	94.7	93	Mauritania	56.3	40.7	143	Myanmar	95.0	0.0
44	Sweden	5.0	94.7	94	Honduras	57.0	40.0	144	Niger	95.0	0.0
45	Switzerland	5.0	94.7	95	Guyana	59.0	37.9	145	Rwanda	95.0	0.0
46	Tunisia	5.0	94.7	96	Guatemala	62.2	34.5	146	Solomon Islands	95.0	0.0
47	Turkmenistan	5.0	94.7	97	Kenya	62.6	34.1	147	Sudan	95.0	0.0
48	United Arab Em.	5.0	94.7	98	Moldova	63.0	33.7	148	Tajikistan	95.0	0.0
49	United Kingdom	5.0	94.7	99	Swaziland	63.8	32.8	149	Uganda	95.0	0.0
50	United States	5.0	94.7	100	Nicaragua	64.4	32.2				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Argentina	5.0	94.7	10	Brazil	12.9	86.4	19	Belize	43.0	54.7
1	Canada	5.0	94.7	11	Mexico	14.2	85.1	20	Jamaica	45.0	52.6
1	Chile	5.0	94.7	12	Dominican Rep.	15.1	84.1	21	Paraguay	52.8	44.4
1	Cuba	5.0	94.7	13	Colombia	19.5	79.5	22	Honduras	57.0	40.0
1	Ecuador	5.0	94.7	14	Costa Rica	23.0	75.8	23	Guyana	59.0	37.9
1	United States	5.0	94.7	15	Panama	33.0	65.3	24	Guatemala	62.2	34.5
1	Uruguay	5.0	94.7	16	El Salvador	33.0	65.3	25	Nicaragua	64.4	32.2
1	Venezuela	5.0	94.7	17	Peru	33.2	65.1	26	Haiti	95.0	0.0
9	Trin. & Tob.	8.0	91.6	18	Bolivia	34.4	63.8				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Hungary	5.0	94.7	8	Belarus	19.0	80.0	15	Moldova	63.0	33.7
1	Kazakhstan	5.0	94.7	9	Romania	22.9	75.9	16	Uzbekistan	72.0	24.2
1	Slovakia	5.0	94.7	10	Macedonia	30.0	68.4	17	Czech Rep.	73.7	22.4
1	Turkmenistan	5.0	94.7	11	Georgia	43.0	54.7	18	Kyrgyzstan	76.0	20.0
5	Ukraine	6.5	93.2	12	Azerbaijan	49.0	48.4	19	Tajikistan	95.0	0.0
6	Russia	8.8	90.7	13	Albania	49.7	47.7				
7	Bulgaria	17.0	82.1	13	Bosnia & Herz.	50.0	47.4				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Taiwan	0.0	100.0	7	Fiji	40.0	57.9	13	China	80.0	15.8
2	Australia	5.0	94.7	8	Philippines	44.6	53.1	14	Papua New Guin.	89.7	5.6
2	Japan	5.0	94.7	9	Mongolia	51.0	46.3	15	Cambodia	95.0	0.0
2	Malaysia	5.0	94.7	10	Viet Nam	69.6	26.7	15	Laos	95.0	0.0
2	New Zealand	5.0	94.7	11	Thailand	72.0	24.2	15	Myanmar	95.0	0.0
2	South Korea	5.0	94.7	12	Indonesia	72.2	24.0	15	Solomon Is.	95.0	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	5.0	94.7	1	Ireland	5.0	94.7	1	Sweden	5.0	94.7
1	Belgium	5.0	94.7	1	Italy	5.0	94.7	1	Switzerland	5.0	94.7
1	Cyprus	5.0	94.7	1	Lithuania	5.0	94.7	1	United Kingdom	5.0	94.7
1	Denmark	5.0	94.7	1	Luxembourg	5.0	94.7	22	Slovenia	8.0	91.6
1	Finland	5.0	94.7	1	Netherlands	5.0	94.7	23	Latvia	10.2	89.3
1	France	5.0	94.7	1	Norway	5.0	94.7	24	Estonia	16.4	82.7
1	Germany	5.0	94.7	1	Poland	5.0	94.7	25	Croatia	21.0	77.9
1	Greece	5.0	94.7	1	Portugal	5.0	94.7				
1	Iceland	5.0	94.7	1	Spain	5.0	94.7				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Algeria	5.0	94.7	1	Kuwait	5.0	94.7	11	Morocco	5.2	94.5
1	Egypt	5.0	94.7	1	Lebanon	5.0	94.7	12	Turkey	11.0	88.4
1	Iran	5.0	94.7	1	Oman	5.0	94.7	13	Armenia	26.4	72.2
1	Iraq	5.0	94.7	1	Saudi Arabia	5.0	94.7	14	Syria	32.0	66.3
1	Israel	5.0	94.7	1	Tunisia	5.0	94.7	15	Yemen	41.6	56.2
1	Jordan	5.0	94.7	1	United Arab Em.	5.0	94.7	18	Sudan	95.0	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	67.1	29.4	3	Pakistan	81.0	14.7	5	Bangladesh	88.9	6.4

2	Nepal	81.0	14.7	4	India	81.8	13.9

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Mauritius	5.0	94.7	14	Tanzania	74.5	21.6	24	Central Afr. Rep.	95.0	0.0
2	Djibouti	5.3	94.4	15	Eritrea	79.7	16.1	24	Chad	95.0	0.0
3	Côte d'Ivoire	12.3	87.1	16	Mozambique	80.0	15.8	24	Dem. Rep. Congo	95.0	0.0
4	South Africa	17.9	81.2	17	Cameroon	82.8	12.8	24	Ethiopia	95.0	0.0
5	Gabon	27.6	70.9	18	Congo	85.0	10.5	24	Guinea	95.0	0.0
6	Senegal	53.0	44.2	19	Ghana	87.0	8.4	24	Guinea-Bissau	95.0	0.0
7	Mauritania	56.3	40.7	20	Togo	87.3	8.1	24	Madagascar	95.0	0.0
8	Kenya	62.6	34.1	21	Zambia	87.3	8.1	24	Malawi	95.0	0.0
9	Swaziland	63.8	32.8	22	Sierra Leone	92.0	3.2	24	Mali	95.0	0.0
10	Namibia	64.5	32.1	23	Benin	94.6	0.4	24	Niger	95.0	0.0
11	Botswana	65.0	31.6	24	Angola	95.0	0.0	24	Rwanda	95.0	0.0
12	Nigeria	67.0	29.5	24	Burkina Faso	95.0	0.0	24	Uganda	95.0	0.0
13	Zimbabwe	71.6	24.6	24	Burundi	95.0	0.0				

Urban Particulates (PM10)
Target value: 20 micrograms per cubic meter

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	15.9	100.0	51	Nicaragua	31.0	90.8	101	Zambia	58.2	67.9
2	Belarus	6.7	100.0	52	Croatia	31.1	90.7	102	Azerbaijan	59.2	67.0
3	Belize	18.1	100.0	53	Japan	31.2	90.6	103	Taiwan	59.7	66.6
4	Bosnia & Herz.	19.4	100.0	54	Philippines	32.2	89.7	104	Turkmenistan	61.9	64.7
5	Canada	19.1	100.0	55	Tunisia	33.2	88.9	105	Cambodia	63.6	63.3
6	Cuba	19.1	100.0	56	Spain	33.3	88.8	106	Cameroon	64.3	62.7
7	Estonia	15.5	100.0	57	Netherlands	34.1	88.1	107	Peru	64.8	62.3
8	Finland	19.1	100.0	58	Swaziland	34.2	88.0	108	Viet Nam	65.2	62.0
9	France	13.8	100.0	59	Austria	34.5	87.8	109	Nigeria	67.0	60.5
10	Gabon	6.4	100.0	60	Ghana	34.8	87.5	110	Guatemala	67.5	60.1
11	Germany	19.3	100.0	61	El Salvador	35.5	87.0	111	Mongolia	68.4	59.2
12	Hungary	17.9	100.0	62	Solomon Islands	35.9	86.6	112	Botswana	68.6	59.1
13	Iceland	18.1	100.0	63	Panama	36.6	86.1	113	Armenia	68.7	59.0
14	Ireland	18.7	100.0	64	Rwanda	36.7	85.9	114	Myanmar	68.8	58.9
15	Kazakhstan	18.8	100.0	65	Israel	37.5	85.3	115	Guinea	70.6	57.4
16	Latvia	15.9	100.0	66	Guyana	37.6	85.2	116	India	71.6	56.6
17	Lithuania	10.1	100.0	67	Poland	38.0	84.9	117	China	72.2	56.1
18	Luxembourg	17.5	100.0	68	South Korea	38.2	84.7	118	Thailand	73.4	55.1
19	Mauritius	16.0	100.0	69	Côte d'Ivoire	38.3	84.6	119	Uzbekistan	75.5	53.3
20	Morocco	19.8	100.0	70	Kenya	38.7	84.3	120	Senegal	75.7	53.1
21	New Zealand	15.5	100.0	71	Nepal	38.7	84.3	121	Ethiopia	76.0	52.9
22	Norway	11.5	100.0	72	Moldova	38.9	84.1	122	Argentina	77.9	51.3
23	Papua New Guin.	19.3	100.0	73	Burundi	38.9	84.1	123	Guinea-Bissau	78.1	51.1
24	Romania	16.0	100.0	74	Mozambique	39.1	84.0	124	Eritrea	84.7	45.6
25	Slovakia	15.7	100.0	75	Costa Rica	39.3	83.8	125	Congo	85.4	45.0
26	Sweden	12.2	100.0	76	Mexico	39.3	83.7	126	Syria	86.1	44.4
27	Uganda	16.5	100.0	77	Greece	41.1	82.2	127	Bolivia	86.2	44.3
28	United Kingdom	15.1	100.0	78	Lebanon	41.8	81.6	128	Algeria	88.1	42.7
29	Venezuela	6.8	100.0	79	Jamaica	42.2	81.3	129	Yemen	90.8	40.4
30	Denmark	20.0	100.0	80	Haiti	42.5	81.1	130	Angola	91.4	40.0
31	Russia	20.0	100.0	81	Namibia	42.6	81.0	131	Burkina Faso	93.7	38.0
32	Macedonia	20.4	99.7	82	Benin	42.9	80.7	132	Paraguay	100.6	32.2
33	United States	22.6	97.8	83	Togo	43.4	80.3	133	Indonesia	102.1	30.9
34	Czech Rep.	23.0	97.5	84	Georgia	44.9	79.0	134	Mauritania	103.3	30.0
35	Colombia	23.2	97.3	85	Madagascar	45.4	78.7	135	Sri Lanka	103.8	29.5
36	Switzerland	24.4	96.3	86	Malawi	46.5	77.7	136	Kuwait	107.9	26.0
37	Kyrgyzstan	24.4	96.3	87	Cyprus	47.0	77.3	137	Trin. & Tob.	114.4	20.5
38	Ecuador	24.9	95.9	88	Honduras	47.1	77.2	138	Oman	119.5	16.3
39	Belgium	25.4	95.4	89	Laos	47.4	77.0	139	United Arab Em.	125.6	11.2
40	Fiji	25.6	95.3	90	Central Afr. Rep.	47.6	76.8	140	Chad	126.7	10.2
41	South Africa	26.1	94.8	91	Turkey	47.7	76.7	141	Pakistan	128.0	9.1
42	Portugal	26.2	94.8	92	Djibouti	48.3	76.2	142	Saudi Arabia	133.3	4.7
43	Italy	27.1	94.0	93	Jordan	50.3	74.5	143	Uruguay	134.2	3.9
44	Ukraine	27.3	93.8	94	Dem. Rep. Congo	52.5	72.7	144	Egypt	134.8	3.4
45	Brazil	28.1	93.2	95	Chile	54.4	71.0	145	Iraq	138.3	0.5
46	Zimbabwe	28.3	93.0	96	Tajikistan	54.5	70.9	146	Bangladesh	140.0	0.0
47	Tanzania	28.3	93.0	97	Bulgaria	55.3	70.3	147	Mali	165.2	0.0
48	Malaysia	28.9	92.5	98	Albania	55.5	70.1	148	Niger	144.2	0.0
49	Dominican Rep.	29.6	92.0	99	Sierra Leone	55.7	70.0	149	Sudan	181.5	0.0
50	Slovenia	30.5	91.2	100	Iran	57.8	68.2				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belize	18.1	100.0	10	Nicaragua	31.0	90.8	19	Chile	54.4	71.0
1	Canada	19.1	100.0	11	El Salvador	35.5	87.0	20	Peru	64.8	62.3
1	Cuba	19.1	100.0	12	Panama	36.6	86.1	21	Guatemala	67.5	60.1
1	Venezuela	6.8	100.0	13	Guyana	37.6	85.2	22	Argentina	77.9	51.3
5	United States	22.6	97.8	14	Costa Rica	39.3	83.8	23	Bolivia	86.2	44.3
6	Colombia	23.2	97.3	15	Mexico	39.3	83.7	24	Paraguay	100.6	32.2
7	Ecuador	24.9	95.9	16	Jamaica	42.2	81.3	25	Trin. & Tob.	114.4	20.5
8	Brazil	28.1	93.2	17	Haiti	42.5	81.1	26	Uruguay	134.2	3.9
9	Dominican Rep.	29.6	92.0	18	Honduras	47.1	77.2				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Slovakia	15.7	100.0	8	Macedonia	20.4	99.7	15	Bulgaria	55.3	70.3
1	Belarus	6.7	100.0	9	Czech Rep.	23.0	97.5	16	Albania	55.5	70.1
1	Bosnia & Herz.	19.4	100.0	10	Kyrgyzstan	24.4	96.3	17	Azerbaijan	59.2	67.0
1	Hungary	17.9	100.0	11	Ukraine	27.3	93.8	18	Turkmenistan	61.9	64.7
1	Kazakhstan	18.8	100.0	12	Moldova	38.9	84.1	19	Uzbekistan	75.5	53.3
1	Romania	16.0	100.0	13	Georgia	44.9	79.0				
1	Russia	20.0	100.0	14	Tajikistan	54.5	70.9				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	15.9	100.0	7	Philippines	32.2	89.7	13	Viet Nam	65.2	62.0
1	New Zealand	15.5	100.0	8	Solomon Islands	35.9	86.6	14	Mongolia	68.4	59.2
1	Papua New Guin.	19.3	100.0	9	South Korea	38.2	84.7	15	Myanmar	68.8	58.9
4	Fiji	25.6	95.3	10	Laos	47.4	77.0	16	China	72.2	56.1
5	Malaysia	28.9	92.5	11	Taiwan	59.7	66.6	17	Thailand	73.4	55.1
6	Japan	31.2	90.6	12	Cambodia	63.6	63.3	18	Indonesia	102.1	30.9

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Denmark	20.0	100.0	1	Luxembourg	17.5	100.0	19	Croatia	31.1	90.7
1	Estonia	15.5	100.0	1	Norway	11.5	100.0	20	Spain	33.3	88.8
1	Finland	19.1	100.0	1	Sweden	12.2	100.0	21	Netherlands	34.1	88.1
1	France	13.8	100.0	1	United Kingdom	15.1	100.0	22	Austria	34.5	87.8
1	Germany	19.3	100.0	14	Switzerland	24.4	96.3	23	Poland	38.0	84.9
1	Iceland	18.1	100.0	15	Belgium	25.4	95.4	24	Greece	41.1	82.2
1	Ireland	18.7	100.0	16	Portugal	26.2	94.8	25	Cyprus	47.0	77.3
1	Latvia	15.9	100.0	17	Italy	27.1	94.0				
1	Lithuania	10.1	100.0	18	Slovenia	30.5	91.2				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Morocco	19.8	100.0	7	Iran	57.8	68.2	13	Oman	119.5	16.3
2	Tunisia	33.2	88.9	8	Armenia	68.7	59.0	14	United Arab Em.	125.6	11.2
3	Israel	37.5	85.3	9	Syria	86.1	44.4	15	Saudi Arabia	133.3	4.7
4	Lebanon	41.8	81.6	10	Algeria	88.1	42.7	16	Egypt	134.8	3.4
5	Turkey	47.7	76.7	11	Yemen	90.8	40.4	17	Iraq	138.3	0.5
6	Jordan	50.3	74.5	12	Kuwait	107.9	26.0	18	Sudan	181.5	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Nepal	38.7	84.3	3	Sri Lanka	103.8	29.5	5	Bangladesh	140.0	0.0

2	India	71.6	56.6	4	Pakistan	128.0	9.1

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Gabon	6.4	100.0	14	Namibia	42.6	81.0	27	Guinea	70.6	57.4
1	Mauritius	16.0	100.0	15	Benin	42.9	80.7	28	Senegal	75.7	53.1
1	Uganda	16.5	100.0	16	Togo	43.4	80.3	29	Ethiopia	76.0	52.9
4	South Africa	26.1	94.8	17	Madagascar	45.4	78.7	30	Guinea-Bissau	78.1	51.1
5	Zimbabwe	28.3	93.0	18	Malawi	46.5	77.7	31	Eritrea	84.7	45.6
6	Tanzania	28.3	93.0	19	Central Afr. Rep.	47.6	76.8	32	Congo	85.4	45.0
7	Swaziland	34.2	88.0	20	Djibouti	48.3	76.2	33	Angola	91.4	40.0
8	Ghana	34.8	87.5	21	Dem. Rep. Congo	52.5	72.7	34	Burkina Faso	93.7	38.0
9	Rwanda	36.7	85.9	22	Sierra Leone	55.7	70.0	35	Mauritania	103.3	30.0
10	Côte d'Ivoire	38.3	84.6	23	Zambia	58.2	67.9	36	Chad	126.7	10.2
11	Kenya	38.7	84.3	24	Cameroon	64.3	62.7	37	Mali	165.2	0.0
12	Burundi	38.9	84.1	25	Nigeria	67.0	60.5	37	Niger	144.2	0.0
13	Mozambique	39.1	84.0	26	Botswana	68.6	59.1				

Ozone – effects on human health (OZONE_H)
Target value: 0 exceedance above 85 pbb

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	0.0	100.0	51	Kenya	0.1	100.0	101	Swaziland	17.5	99.1
2	Azerbaijan	0.0	100.0	52	Kazakhstan	0.1	100.0	102	China	18.0	99.0
3	Belarus	0.0	100.0	53	Finland	0.2	100.0	103	Slovenia	18.0	99.0
4	Costa Rica	0.0	100.0	54	Turkey	0.2	100.0	104	Guatemala	19.5	98.9
5	Cyprus	0.0	100.0	55	Honduras	0.2	100.0	105	South Africa	20.3	98.9
6	Djibouti	0.0	100.0	56	Iraq	0.3	100.0	106	Croatia	21.8	98.8
7	Dominican Rep.	0.0	100.0	57	Iran	0.4	100.0	107	Viet Nam	22.1	98.8
8	Ecuador	0.0	100.0	58	Poland	0.5	100.0	108	Portugal	24.5	98.7
9	Egypt	0.0	100.0	59	Russia	0.5	100.0	109	Ethiopia	26.3	98.6
10	El Salvador	0.0	100.0	60	Tunisia	0.5	100.0	110	Switzerland	27.3	98.5
11	Eritrea	0.0	100.0	61	Uzbekistan	0.7	100.0	111	Cambodia	27.6	98.5
12	Estonia	0.0	100.0	62	United Kingdom	0.7	100.0	112	Japan	31.7	98.3
13	Fiji	0.0	100.0	63	Norway	0.7	100.0	113	Mozambique	31.9	98.3
14	Georgia	0.0	100.0	64	Ireland	0.7	100.0	114	Mexico	36.7	98.0
15	Guyana	0.0	100.0	65	Malawi	0.8	100.0	115	Senegal	47.0	97.5
16	Haiti	0.0	100.0	66	Malaysia	0.9	100.0	116	South Korea	56.0	97.0
17	Iceland	0.0	100.0	67	Czech Rep.	1.1	99.9	117	Italy	57.7	96.9
18	Israel	0.0	100.0	68	Cuba	1.1	99.9	118	Thailand	111.2	94.0
19	Jamaica	0.0	100.0	69	Nepal	1.6	99.9	119	Nigeria	115.5	93.8
20	Jordan	0.0	100.0	70	Saudi Arabia	1.7	99.9	120	Mali	127.0	93.1
21	Kuwait	0.0	100.0	71	Panama	2.9	99.8	121	Argentina	140.4	92.4
22	Latvia	0.0	100.0	72	Sweden	3.5	99.8	122	Canada	152.1	91.8
23	Lebanon	0.0	100.0	73	Taiwan	3.5	99.8	123	Myanmar	160.0	91.4
24	Lithuania	0.0	100.0	74	India	3.9	99.8	124	Zimbabwe	165.6	91.1
25	Macedonia	0.0	100.0	75	Bosnia & Herz.	4.0	99.8	125	Guinea-Bissau	188.7	89.8
26	Madagascar	0.0	100.0	76	Algeria	4.0	99.8	126	Belize	195.4	89.4
27	Mauritania	0.0	100.0	77	Pakistan	4.1	99.8	127	United States	200.8	89.2
28	Mauritius	0.0	100.0	78	Greece	4.2	99.8	128	Ghana	263.4	85.8
29	Moldova	0.0	100.0	79	Rwanda	4.3	99.8	129	Sudan	282.3	84.8
30	Mongolia	0.0	100.0	80	Denmark	4.5	99.8	130	Gabon	288.8	84.4
31	Morocco	0.0	100.0	81	Indonesia	4.6	99.8	131	Burkina Faso	310.2	83.3
32	New Zealand	0.0	100.0	82	Spain	4.6	99.7	132	Togo	356.0	80.8
33	Nicaragua	0.0	100.0	83	Netherlands	5.4	99.7	133	Côte d'Ivoire	392.1	78.8
34	Oman	0.0	100.0	84	Belgium	6.4	99.7	134	Sierra Leone	407.3	78.0
35	Papua New Guin.	0.0	100.0	85	Germany	6.7	99.6	135	Cameroon	412.7	77.7
36	Philippines	0.0	100.0	86	Niger	7.5	99.6	136	Benin	500.7	73.0
37	Slovakia	0.0	100.0	87	Tanzania	7.7	99.6	137	Chad	636.9	65.6
38	Solomon Islands	0.0	100.0	88	Bangladesh	7.7	99.6	138	Brazil	748.9	59.6
39	Sri Lanka	0.0	100.0	89	Peru	8.2	99.6	139	Laos	749.5	59.5
40	Syria	0.0	100.0	90	Venezuela	8.5	99.5	140	Guinea	786.3	57.5
41	Trin. & Tob.	0.0	100.0	91	Uruguay	8.6	99.5	141	Dem. Rep. Congo	1094.6	40.9
42	Turkmenistan	0.0	100.0	92	Kyrgyzstan	9.5	99.5	142	Congo	1208.3	34.8
43	Yemen	0.0	100.0	93	Colombia	10.2	99.5	143	Zambia	1261.2	31.9
44	Chile	0.0	100.0	94	Luxembourg	10.6	99.4	144	Paraguay	1477.0	20.3
45	Hungary	0.0	100.0	95	Tajikistan	10.6	99.4	145	Angola	4948.8	0.0
46	United Arab Em.	0.0	100.0	96	Uganda	10.7	99.4	146	Bolivia	2509.2	0.0
47	Bulgaria	0.0	100.0	97	Burundi	11.6	99.4	147	Botswana	2415.0	0.0
48	Australia	0.0	100.0	98	France	12.0	99.4	148	Central Afr. Rep.	4524.8	0.0
49	Romania	0.0	100.0	99	Austria	15.7	99.2	149	Namibia	3228.0	0.0
50	Ukraine	0.1	100.0	100	Albania	15.8	99.1				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Chile	0.0	100.0	1	Nicaragua	0.0	100.0	19	Mexico	36.7	98.0
1	Costa Rica	0.0	100.0	1	Trin. & Tob.	0.0	100.0	20	Argentina	140.4	92.4
1	Dominican Rep.	0.0	100.0	12	Cuba	1.1	99.9	21	Canada	152.1	91.8
1	Ecuador	0.0	100.0	13	Panama	2.9	99.8	22	Belize	195.4	89.4
1	El Salvador	0.0	100.0	14	Peru	8.2	99.6	23	United States	200.8	89.2
1	Guyana	0.0	100.0	15	Colombia	10.2	99.5	24	Brazil	748.9	59.6
1	Haiti	0.0	100.0	15	Uruguay	8.6	99.5	25	Paraguay	1477	20.3
1	Honduras	0.2	100.0	15	Venezuela	8.5	99.5	26	Bolivia	2509	0.0
1	Jamaica	0.0	100.0	18	Guatemala	19.5	98.9				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Azerbaijan	0.0	100.0	1	Moldova	0.0	100.0	15	Czech Rep.	1.1	99.9
1	Belarus	0.0	100.0	1	Romania	0.0	100.0	16	Bosnia & Herz.	4.0	99.8
1	Bulgaria	0.0	100.0	1	Russia	0.5	100.0	17	Kyrgyzstan	9.5	99.5
1	Georgia	0.0	100.0	1	Slovakia	0.0	100.0	18	Tajikistan	10.6	99.4
1	Hungary	0.0	100.0	1	Turkmenistan	0.0	100.0	19	Albania	15.8	99.1
1	Kazakhstan	0.1	100.0	1	Ukraine	0.1	100.0				
1	Macedonia	0.0	100.0	1	Uzbekistan	0.7	100.0				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	0.0	100.0	1	Philippines	0.0	100.0	13	Cambodia	27.6	98.5
1	Fiji	0.0	100.0	1	Solomon Islands	0.0	100.0	14	Japan	31.7	98.3
1	Malaysia	0.9	100.0	9	Taiwan	3.5	99.8	15	South Korea	56.0	97.0
1	Mongolia	0.0	100.0	10	Indonesia	4.6	99.8	16	Thailand	111.2	94.0
1	New Zealand	0.0	100.0	11	China	18.0	99.0	17	Myanmar	160.0	91.4
1	Papua New Guin.	0.0	100.0	12	Viet Nam	22.1	98.8	18	Laos	749.5	59.5

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Cyprus	0.0	100.0	1	United Kingdom	0.7	100.0	18	Luxembourg	10.6	99.4
1	Estonia	0.0	100.0	11	Denmark	4.5	99.8	20	Austria	15.7	99.2
1	Finland	0.2	100.0	11	Greece	4.2	99.8	21	Slovenia	18.0	99.0
1	Iceland	0.0	100.0	11	Sweden	3.5	99.8	22	Croatia	21.8	98.8
1	Ireland	0.7	100.0	14	Belgium	6.4	99.7	23	Portugal	24.5	98.7
1	Latvia	0.0	100.0	14	Netherlands	5.4	99.7	24	Switzerland	27.3	98.5
1	Lithuania	0.0	100.0	14	Spain	4.6	99.7	25	Italy	57.7	96.9
1	Norway	0.7	100.0	17	Germany	6.7	99.6				
1	Poland	0.5	100.0	18	France	12.0	99.4				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	0.0	100.0	1	Kuwait	0.0	100.0	1	Turkey	0.2	100.0
1	Egypt	0.0	100.0	1	Lebanon	0.0	100.0	1	United Arab Em.	0.0	100.0
1	Iran	0.4	100.0	1	Morocco	0.0	100.0	1	Yemen	0.0	100.0
1	Iraq	0.3	100.0	1	Oman	0.0	100.0	16	Saudi Arabia	1.7	99.9
1	Israel	0.0	100.0	1	Syria	0.0	100.0	17	Algeria	4.0	99.8
1	Jordan	0.0	100.0	1	Tunisia	0.5	100.0	18	Sudan	282.3	84.8

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	0.0	100.0	3	India	3.9	99.8	5	Bangladesh	7.7	99.6

2	Nepal	1.6	99.9	3	Pakistan	4.1	99.8

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Djibouti	0.0	100.0	14	South Africa	20.3	98.9	27	Sierra Leone	407.3	78.0
1	Eritrea	0.0	100.0	15	Ethiopia	26.3	98.6	28	Cameroon	412.7	77.7
1	Kenya	0.1	100.0	16	Mozambique	31.9	98.3	29	Benin	500.7	73.0
1	Madagascar	0.0	100.0	17	Senegal	47.0	97.5	30	Chad	636.9	65.6
1	Malawi	0.8	100.0	18	Nigeria	115.5	93.8	31	Guinea	786.3	57.5
1	Mauritania	0.0	100.0	19	Mali	127.0	93.1	32	Dem. Rep. Congo	1094	40.9
1	Mauritius	0.0	100.0	20	Zimbabwe	165.6	91.1	33	Congo	1208	34.8
8	Rwanda	4.3	99.8	21	Guinea-Bissau	188.7	89.8	34	Zambia	1261	31.9
9	Niger	7.5	99.6	22	Ghana	263.4	85.8	35	Angola	4949	0.0
10	Tanzania	7.7	99.6	23	Gabon	288.8	84.4	35	Botswana	2415	0.0
11	Burundi	11.6	99.4	24	Burkina Faso	310.2	83.3	35	Central Afr. Rep.	4525	0.0
11	Uganda	10.7	99.4	25	Togo	356.0	80.8	35	Namibia	3228	0.0
13	Swaziland	17.5	99.1	26	Côte d'Ivoire	392.1	78.8				

Sulfur Dioxide (SO2)
Target value: 0 metric tons

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Solomon Islands	0.0	99.9	51	Bolivia	0.5	98.8	101	Congo	2.4	94.3
2	Eritrea	0.0	99.9	52	Namibia	0.6	98.7	102	France	2.4	94.2
3	Tajikistan	0.1	99.8	53	Botswana	0.6	98.7	103	Thailand	2.6	93.9
4	Niger	0.1	99.8	54	Costa Rica	0.6	98.6	104	India	2.6	93.9
5	Mali	0.1	99.8	55	Morocco	0.6	98.5	105	Ukraine	2.6	93.8
6	Burkina Faso	0.1	99.8	56	Nepal	0.6	98.5	106	Turkey	2.7	93.6
7	Papua New Guin.	0.1	99.7	57	Albania	0.6	98.5	107	Cuba	2.9	93.2
8	Chad	0.1	99.7	58	Angola	0.7	98.4	108	Russia	3.2	92.5
9	Djibouti	0.1	99.7	59	Central Afr. Rep.	0.7	98.3	109	Denmark	3.3	92.3
10	Fiji	0.2	99.6	60	Viet Nam	0.8	98.1	110	Macedonia	3.3	92.2
11	Georgia	0.2	99.6	61	Rwanda	0.8	98.1	111	Iceland	3.4	92.0
12	Madagascar	0.2	99.6	62	Saudi Arabia	0.8	98.1	112	Kazakhstan	3.6	91.5
13	Tanzania	0.2	99.6	63	Guatemala	0.8	98.0	113	Jordan	3.7	91.2
14	Haiti	0.2	99.6	64	Nigeria	0.9	97.9	114	Romania	3.8	90.9
15	Sudan	0.2	99.6	65	Brazil	0.9	97.8	115	Estonia	4.0	90.5
16	Mauritania	0.2	99.6	66	Ecuador	0.9	97.8	116	Slovenia	4.5	89.3
17	Ethiopia	0.2	99.5	67	Algeria	0.9	97.8	117	Mauritius	4.7	88.8
18	Kyrgyzstan	0.2	99.5	68	Iraq	1.0	97.7	118	Spain	5.1	88.0
19	Dem. Rep. Congo	0.2	99.5	69	Iran	1.0	97.6	119	United States	5.1	88.0
20	Myanmar	0.2	99.5	70	Pakistan	1.0	97.6	120	Italy	5.2	87.7
21	Turkmenistan	0.2	99.5	71	Belarus	1.1	97.4	121	China	5.6	86.8
22	Cambodia	0.2	99.5	72	Indonesia	1.1	97.3	122	Norway	5.6	86.8
23	Laos	0.2	99.4	73	Ireland	1.2	97.2	123	South Africa	6.4	84.9
24	Mozambique	0.2	99.4	74	Mongolia	1.3	97.0	124	Greece	6.4	84.8
25	Benin	0.2	99.4	75	Zambia	1.4	96.7	125	Germany	6.7	84.0
26	Kenya	0.3	99.4	76	Lithuania	1.4	96.7	126	Bosnia & Herz.	6.9	83.7
27	Guinea	0.3	99.4	77	Yemen	1.4	96.6	127	Cyprus	7.1	83.3
28	Senegal	0.3	99.4	78	Sweden	1.6	96.3	128	Japan	7.1	83.1
29	Guinea-Bissau	0.3	99.4	79	Oman	1.6	96.1	129	Luxembourg	7.5	82.3
30	Uganda	0.3	99.3	80	Bangladesh	1.6	96.1	130	United Kingdom	7.6	82.1
31	Burundi	0.3	99.3	81	Sri Lanka	1.6	96.1	131	Slovakia	7.7	81.8
32	Malawi	0.3	99.3	82	Panama	1.6	96.1	132	Trin. & Tob.	7.9	81.2
33	Uruguay	0.3	99.3	83	Venezuela	1.7	96.1	133	Hungary	8.1	80.8
34	Honduras	0.3	99.2	84	New Zealand	1.7	96.1	134	Canada	8.3	80.5
35	Ghana	0.3	99.2	85	Gabon	1.7	96.0	135	Egypt	8.3	80.3
36	Guyana	0.3	99.2	86	Malaysia	1.7	95.9	136	Lebanon	10.3	75.5
37	Swaziland	0.3	99.2	87	El Salvador	1.8	95.8	137	Chile	10.5	75.2
38	Belize	0.4	99.1	88	Uzbekistan	1.8	95.8	138	Jamaica	11.0	73.8
39	Sierra Leone	0.4	99.1	89	Azerbaijan	1.9	95.4	139	Poland	12.2	71.0
40	Côte d'Ivoire	0.4	99.1	90	Finland	1.9	95.4	140	United Arab Em.	12.6	70.2
41	Moldova	0.4	99.1	91	Syria	2.0	95.3	141	Australia	12.7	69.9
42	Cameroon	0.4	99.0	92	Switzerland	2.1	94.9	142	Bulgaria	13.6	67.7
43	Latvia	0.4	99.0	93	Dominican Rep.	2.2	94.8	143	Kuwait	17.5	58.5
44	Togo	0.4	99.0	94	Peru	2.2	94.8	144	Czech Rep.	18.3	56.6
45	Zimbabwe	0.4	98.9	95	Tunisia	2.2	94.7	145	Israel	21.0	50.3
46	Nicaragua	0.5	98.9	96	Croatia	2.2	94.7	146	Netherlands	28.4	32.8
47	Armenia	0.5	98.8	97	Mexico	2.2	94.7	147	Belgium	41.9	0.6
48	Colombia	0.5	98.8	98	Portugal	2.3	94.6	148	South Korea	43.3	0.0
49	Paraguay	0.5	98.8	99	Philippines	2.3	94.5	149	Taiwan	48.3	0.0
50	Argentina	0.5	98.8	100	Austria	2.4	94.4				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Haiti	0.2	99.6	7	Paraguay	0.5	98.8	19	Peru	2.2	94.8
2	Uruguay	0.3	99.3	11	Costa Rica	0.6	98.6	20	Mexico	2.2	94.7
3	Guyana	0.3	99.2	12	Guatemala	0.8	98.0	21	Cuba	2.9	93.2
3	Honduras	0.3	99.2	13	Brazil	0.9	97.8	22	United States	5.1	88.0
5	Belize	0.4	99.1	14	Ecuador	0.9	97.8	23	Trin. & Tob.	7.9	81.2
6	Nicaragua	0.5	98.9	15	Panama	1.6	96.1	24	Canada	8.3	80.5
7	Argentina	0.5	98.8	16	Venezuela	1.7	96.1	25	Chile	10.5	75.2
7	Bolivia	0.5	98.8	17	El Salvador	1.8	95.8	26	Jamaica	11.0	73.8
7	Colombia	0.5	98.8	18	Dominican Rep.	2.2	94.8				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Tajikistan	0.1	99.8	8	Uzbekistan	1.8	95.8	15	Bosnia & Herz.	6.9	83.7
2	Georgia	0.2	99.6	9	Azerbaijan	1.9	95.4	16	Slovakia	7.7	81.8
3	Kyrgyzstan	0.2	99.5	10	Ukraine	2.6	93.8	17	Hungary	8.1	80.8
3	Turkmenistan	0.2	99.5	11	Russia	3.2	92.5	18	Bulgaria	13.6	67.7
5	Moldova	0.4	99.1	12	Macedonia	3.3	92.2	19	Czech Rep.	18.3	56.6
6	Albania	0.6	98.5	13	Kazakhstan	3.6	91.5				
7	Belarus	1.1	97.4	14	Romania	3.8	90.9				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Solomon Is.	0.0	99.9	7	Viet Nam	0.8	98.1	13	Thailand	2.6	93.9
2	Papua New Guin.	0.1	99.7	8	Indonesia	1.1	97.3	14	China	5.6	86.8
3	Fiji	0.2	99.6	9	Mongolia	1.3	97.0	15	Japan	7.1	83.1
4	Cambodia	0.2	99.5	10	New Zealand	1.7	96.1	16	Australia	12.7	69.9
4	Myanmar	0.2	99.5	11	Malaysia	1.7	95.9	17	South Korea	43.3	0.0
6	Laos	0.2	99.4	12	Philippines	2.3	94.5	17	Taiwan	48.3	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Latvia	0.4	99.0	10	France	2.4	94.2	19	Germany	6.7	84.0
2	Ireland	1.2	97.2	11	Denmark	3.3	92.3	20	Cyprus	7.1	83.3
3	Lithuania	1.4	96.7	12	Iceland	3.4	92.0	21	Luxembourg	7.5	82.3
4	Sweden	1.6	96.3	13	Estonia	4.0	90.5	22	United Kingdom	7.6	82.1
5	Finland	1.9	95.4	14	Slovenia	4.5	89.3	23	Poland	12.2	71.0
6	Switzerland	2.1	94.9	15	Spain	5.1	88.0	24	Netherlands	28.4	32.8
7	Croatia	2.2	94.7	16	Italy	5.2	87.7	25	Belgium	41.9	0.6
8	Portugal	2.3	94.6	17	Norway	5.6	86.8				
9	Austria	2.4	94.4	18	Greece	6.4	84.8				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sudan	0.2	99.6	7	Iran	1.0	97.6	13	Jordan	3.7	91.2
2	Armenia	0.5	98.8	8	Yemen	1.4	96.6	14	Egypt	8.3	80.3
3	Morocco	0.6	98.5	9	Oman	1.6	96.1	15	Lebanon	10.3	75.5
4	Saudi Arabia	0.8	98.1	10	Syria	2.0	95.3	16	United Arab Em.	12.6	70.2
5	Algeria	0.9	97.8	11	Tunisia	2.2	94.7	17	Kuwait	17.5	58.5
6	Iraq	1.0	97.7	12	Turkey	2.7	93.6	18	Israel	21.0	50.3

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Nepal	0.6	98.5	3	Bangladesh	1.6	96.1	5	India	2.6	93.9

2	Pakistan	1.0	97.6	3	Sri Lanka	1.6	96.1

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Eritrea	0.0	99.9	12	Guinea-Bissau	0.3	99.4	27	Zimbabwe	0.4	98.9
2	Burkina Faso	0.1	99.8	12	Kenya	0.3	99.4	28	Botswana	0.6	98.7
2	Mali	0.1	99.8	12	Mozambique	0.2	99.4	28	Namibia	0.6	98.7
2	Niger	0.1	99.8	12	Senegal	0.3	99.4	30	Angola	0.7	98.4
5	Chad	0.1	99.7	18	Burundi	0.3	99.3	31	Central Afr. Rep.	0.7	98.3
5	Djibouti	0.1	99.7	18	Malawi	0.3	99.3	32	Rwanda	0.8	98.1
7	Madagascar	0.2	99.6	18	Uganda	0.3	99.3	33	Nigeria	0.9	97.9
7	Mauritania	0.2	99.6	21	Ghana	0.3	99.2	34	Zambia	1.4	96.7
7	Tanzania	0.2	99.6	21	Swaziland	0.3	99.2	35	Gabon	1.7	96.0
10	Dem. Rep. Congo	0.2	99.5	23	Côte d'Ivoire	0.4	99.1	36	Congo	2.4	94.3
10	Ethiopia	0.2	99.5	23	Sierra Leone	0.4	99.1	37	Mauritius	4.7	88.8
12	Benin	0.2	99.4	25	Cameroon	0.4	99.0	38	South Africa	6.4	84.9
12	Guinea	0.3	99.4	25	Togo	0.4	99.0				

Ozone – effects on ecosystem (OZONE_E)
Target value: 0 exceedance above 3000 ppb.h

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	0.0	100.0	51	Romania	13458	100.0	101	Uganda	5.1E+06	98.8
2	Azerbaijan	0.0	100.0	52	Norway	28283	100.0	102	Cambodia	7.4E+06	98.2
3	Belarus	0.0	100.0	53	Ireland	29340	100.0	103	Germany	7.5E+06	98.2
4	Costa Rica	0.0	100.0	54	Kazakhstan	35075	100.0	104	Gabon	7.6E+06	98.1
5	Cyprus	0.0	100.0	55	Luxembourg	64060	100.0	105	Pakistan	8.5E+06	97.9
6	Djibouti	0.0	100.0	56	Tunisia	64298	100.0	106	Colombia	9.0E+06	97.8
7	Dominican Rep.	0.0	100.0	57	Kenya	72538	100.0	107	Senegal	9.3E+06	97.7
8	Ecuador	0.0	100.0	58	Ukraine	73696	100.0	108	France	1.0E+07	97.5
9	Egypt	0.0	100.0	59	Iraq	122975	100.0	109	Mozambique	1.2E+07	97.2
10	El Salvador	0.0	100.0	60	Panama	144498	100.0	110	South Africa	1.7E+07	95.8
11	Eritrea	0.0	100.0	61	Czech Rep.	155901	100.0	111	Bangladesh	2.0E+07	95.2
12	Estonia	0.0	100.0	62	Malawi	185559	100.0	112	Indonesia	2.1E+07	95.0
13	Fiji	0.0	100.0	63	Turkey	189136	100.0	113	Mali	3.0E+07	92.6
14	Georgia	0.0	100.0	64	Cuba	194058	100.0	114	Togo	3.4E+07	91.7
15	Guyana	0.0	100.0	65	Denmark	206460	99.9	115	Viet Nam	3.4E+07	91.6
16	Haiti	0.0	100.0	66	Poland	219505	99.9	116	Ethiopia	3.5E+07	91.5
17	Iceland	0.0	100.0	67	Bosnia & Herz.	246209	99.9	117	Sierra Leone	3.7E+07	90.9
18	Israel	0.0	100.0	68	Uzbekistan	262351	99.9	118	South Korea	4.1E+07	90.0
19	Jamaica	0.0	100.0	69	Swaziland	308959	99.9	119	Zimbabwe	4.2E+07	89.8
20	Jordan	0.0	100.0	70	Sweden	321529	99.9	120	Italy	5.0E+07	87.8
21	Kuwait	0.0	100.0	71	Malaysia	380622	99.9	121	Japan	6.4E+07	84.3
22	Latvia	0.0	100.0	72	United Kingdom	495934	99.9	122	Canada	6.6E+07	84.0
23	Lebanon	0.0	100.0	73	Uruguay	514102	99.9	123	Benin	6.6E+07	83.8
24	Lithuania	0.0	100.0	74	Iran	544369	99.9	124	Mexico	7.1E+07	82.8
25	Macedonia	0.0	100.0	75	Slovenia	591641	99.9	125	Botswana	7.1E+07	82.6
26	Madagascar	0.0	100.0	76	Greece	593311	99.9	126	India	7.4E+07	82.0
27	Mauritania	0.0	100.0	77	Nepal	654935	99.8	127	Burkina Faso	7.5E+07	81.6
28	Mauritius	0.0	100.0	78	Saudi Arabia	655933	99.8	128	Laos	8.0E+07	80.6
29	Moldova	0.0	100.0	79	Rwanda	668937	99.8	129	Congo	8.1E+07	80.2
30	Mongolia	0.0	100.0	80	Albania	680845	99.8	130	Argentina	1.0E+08	75.7
31	Morocco	0.0	100.0	81	Belize	690736	99.8	131	Ghana	1.0E+08	74.6
32	New Zealand	0.0	100.0	82	Kyrgyzstan	766225	99.8	132	Chad	1.1E+08	74.1
33	Nicaragua	0.0	100.0	83	Russia	827506	99.8	133	Namibia	1.1E+08	72.7
34	Oman	0.0	100.0	84	Belgium	891092	99.8	134	Cameroon	1.3E+08	68.2
35	Papua New Guin.	0.0	100.0	85	Tajikistan	983656	99.8	135	Côte d'Ivoire	1.3E+08	67.7
36	Philippines	0.0	100.0	86	Netherlands	1.1E+06	99.7	136	Guinea	1.3E+08	67.3
37	Slovakia	0.0	100.0	87	Croatia	1.1E+06	99.7	137	Thailand	1.4E+08	65.3
38	Solomon Islands	0.0	100.0	88	Taiwan	1.4E+06	99.7	138	Myanmar	1.5E+08	63.2
39	Sri Lanka	0.0	100.0	89	Burundi	1.5E+06	99.6	139	Paraguay	1.6E+08	61.2
40	Syria	0.0	100.0	90	Niger	1.7E+06	99.6	140	Sudan	1.9E+08	54.6
41	Trin. & Tob.	0.0	100.0	91	Austria	1.8E+06	99.6	141	Zambia	2.7E+08	33.9
42	Turkmenistan	0.0	100.0	92	Algeria	1.9E+06	99.5	142	Nigeria	2.8E+08	32.3
43	Yemen	0.0	100.0	93	Switzerland	2.8E+06	99.3	143	Central Afr. Rep.	3.6E+08	12.5
44	United Arab Em.	26.3	100.0	94	Spain	2.9E+06	99.3	144	China	4.0E+08	3.0
45	Chile	153.1	100.0	95	Portugal	3.8E+06	99.1	145	Angola	1.4E+09	0.0
46	Hungary	388.3	100.0	96	Venezuela	4.3E+06	99.0	146	Bolivia	4.3E+08	0.0
47	Bulgaria	1308.5	100.0	97	Guinea-Bissau	4.3E+06	98.9	147	Brazil	2.7E+09	0.0
48	Finland	6251.3	100.0	98	Peru	4.4E+06	98.9	148	Dem. Rep. Congo	1.2E+09	0.0
49	Honduras	7389.7	100.0	99	Guatemala	4.5E+06	98.9	149	United States	9.4E+08	0.0
50	Australia	11575.3	100.0	100	Tanzania	4.6E+06	98.9				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Chile	153.1	100.0	1	Jamaica	0.0	100.0	19	Colombia	8956230	97.8
1	Costa Rica	0.0	100.0	1	Nicaragua	0.0	100.0	20	Canada	6.6E+07	84.0
1	Cuba	194058	100.0	1	Panama	144498	100.0	21	Mexico	7.1E+07	82.8
1	Dominican Rep.	0.0	100.0	1	Trin. & Tob.	0.0	100.0	22	Argentina	1.0E+08	75.7
1	Ecuador	0.0	100.0	14	Uruguay	514102	99.9	23	Paraguay	1.6E+08	61.2
1	El Salvador	0.0	100.0	15	Belize	690736	99.8	24	Bolivia	4.3E+08	0.0
1	Guyana	0.0	100.0	16	Venezuela	4.3E+06	99.0	24	Brazil	2.7E+09	0.0
1	Haiti	0.0	100.0	17	Peru	4.4E+06	98.9	24	United States	9.4E+08	0.0
1	Honduras	7390	100.0	18	Guatemala	4.5E+06	98.9				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Azerbaijan	0.0	100.0	1	Macedonia	0.0	100.0	15	Uzbekistan	262351	99.9
1	Belarus	0.0	100.0	1	Moldova	0	100.0	16	Albania	680845	99.8
1	Bulgaria	1308	100.0	1	Romania	13458	100.0	17	Kyrgyzstan	766225	99.8
1	Czech Rep.	155901	100.0	1	Slovakia	0	100.0	18	Russia	827506	99.8
1	Georgia	0.0	100.0	1	Turkmenistan	0	100.0	19	Tajikistan	983656	99.8
1	Hungary	388.3	100.0	1	Ukraine	73696	100.0				
1	Kazakhstan	35075	100.0	14	Bosnia and Herz.	246209	99.9				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	11575	100.0	1	Solomon Islands	0.0	100.0	13	South Korea	4.1E+07	90.0
1	Fiji	0.0	100.0	8	Malaysia	380622	99.9	14	Japan	6.4E+07	84.3
1	Mongolia	0.0	100.0	9	Taiwan	1.4E+06	99.7	15	Laos	8.0E+07	80.6
1	New Zealand	0.0	100.0	10	Cambodia	7.4E+06	98.2	16	Thailand	1.4E+08	65.3
1	Papua New Guin.	0.0	100.0	11	Indonesia	2.1E+07	95.0	17	Myanmar	1.5E+08	63.2
1	Philippines	0.0	100.0	12	Viet Nam	3.4E+07	91.6	18	China	4.0E+08	3.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Cyprus	0	100.0	10	Denmark	206460	99.9	19	Austria	1828480	99.6
1	Estonia	0	100.0	10	Greece	593311	99.9	20	Spain	2851720	99.3
1	Finland	6251	100.0	10	Poland	219505	99.9	20	Switzerland	2755990	99.3
1	Iceland	0	100.0	10	Slovenia	591641	99.9	22	Portugal	3769160	99.1
1	Ireland	29340	100.0	10	Sweden	321529	99.9	23	Germany	7526200	98.2
1	Latvia	0	100.0	10	United Kingdom	495934	99.9	24	France	1.0E+07	97.5
1	Lithuania	0	100.0	16	Belgium	891092	99.8	25	Italy	5.0E+07	87.8
1	Luxembourg	64060	100.0	17	Croatia	1131530	99.7				
1	Norway	28283	100.0	17	Netherlands	1116290	99.7				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	0.0	100.0	1	Lebanon	0.0	100.0	1	United Arab Em.	26.3	100.0
1	Egypt	0.0	100.0	1	Morocco	0.0	100.0	1	Yemen	0.0	100.0
1	Iraq	122975	100.0	1	Oman	0.0	100.0	15	Iran	544369	99.9
1	Israel	0.0	100.0	1	Syria	0.0	100.0	16	Saudi Arabia	655933	99.8
1	Jordan	0.0	100.0	1	Tunisia	64298	100.0	17	Algeria	1.9E+6	99.5
1	Kuwait	0.0	100.0	1	Turkey	189136	100.0	18	Sudan	1.9E+8	54.6

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	0.0	100.0	3	Pakistan	8.5E+06	97.9	5	India	7.4E+07	82.0

2	Nepal	654935	99.8	4	Bangladesh	2.0E+07	95.2

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Djibouti	0.0	100.0	14	Uganda	5.1E+06	98.8	27	Congo	8.1E+07	80.2
1	Eritrea	0.0	100.0	15	Gabon	7.6E+06	98.1	28	Ghana	1.0E+08	74.6
1	Kenya	72538	100.0	16	Senegal	9.3E+06	97.7	29	Chad	1.1E+08	74.1
1	Madagascar	0.0	100.0	17	Mozambique	1.2E+07	97.2	30	Namibia	1.1E+08	72.7
1	Malawi	185559	100.0	18	South Africa	1.7E+07	95.8	31	Cameroon	1.3E+08	68.2
1	Mauritania	0.0	100.0	19	Mali	3.0E+07	92.6	32	Côte d'Ivoire	1.3E+08	67.7
1	Mauritius	0.0	100.0	20	Togo	3.4E+07	91.7	33	Guinea	1.3E+08	67.3
8	Swaziland	308959	99.9	21	Ethiopia	3.5E+07	91.5	34	Zambia	2.7E+08	33.9
9	Rwanda	668937	99.8	22	Sierra Leone	3.7E+07	90.9	35	Nigeria	2.8E+08	32.3
10	Burundi	1.5E+06	99.6	23	Zimbabwe	4.2E+07	89.8	36	Central Afr. Rep.	3.6E+08	12.5
10	Niger	1.7E+06	99.6	24	Benin	6.6E+07	83.8	37	Angola	1.4E+09	0.0
12	Guinea-Bissau	4.3E+06	98.9	25	Botswana	7.1E+07	82.6	37	Dem. Rep. Congo	1.2E+09	0.0
12	Tanzania	4.6E+06	98.9	26	Burkina Faso	7.5E+07	81.6				

Water Quality Index (WATQI)
Target value:
proximity to target score of 100 (based on monitoring station parameter scores)

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	New Zealand	99.4	99.0	51	Austria	75.9	59.8	101	Belarus	58.9	31.7
2	Finland	99.1	98.4	52	Belgium	75.7	59.6	102	Georgia	58.9	31.7
3	Lithuania	97.7	96.2	53	Dominican Rep.	75.6	59.4	103	Moldova	58.9	31.7
4	Latvia	97.6	96.0	54	Haiti	75.6	59.4	104	Ukraine	58.9	31.7
5	Slovenia	97.6	96.0	55	Jamaica	75.6	59.4	105	Angola	57.5	29.4
6	Sweden	96.7	94.6	56	Trin. & Tob.	75.6	59.4	106	Botswana	57.5	29.4
7	Albania	95.8	93.0	57	Bangladesh	75.5	59.3	107	Madagascar	57.5	29.4
8	Italy	95.7	92.8	58	Chile	74.3	57.3	108	Malawi	57.5	29.4
9	Bulgaria	95.4	92.4	59	Belize	74.2	57.1	109	Mauritius	57.5	29.4
10	Norway	94.7	91.2	60	Costa Rica	74.2	57.1	110	Mozambique	57.5	29.4
11	Switzerland	93.3	88.9	61	El Salvador	74.2	57.1	111	Namibia	57.5	29.4
12	Canada	92.5	87.6	62	Honduras	74.2	57.1	112	Swaziland	57.5	29.4
13	Hungary	91.8	86.3	63	Nicaragua	74.2	57.1	113	Zambia	57.5	29.4
14	Portugal	91.7	86.2	64	Kenya	73.8	56.4	114	Zimbabwe	57.5	29.4
15	Bosnia & Herz.	90.9	84.8	65	Turkey	72.3	54.0	115	Iceland	57.0	28.5
16	United Kingdom	90.5	84.2	66	Nepal	72.3	53.9	116	Uganda	56.7	28.0
17	Croatia	90.4	84.1	67	Colombia	71.7	53.0	117	Burundi	55.3	25.6
18	Uruguay	88.3	80.5	68	Mexico	71.0	51.7	118	Djibouti	55.3	25.6
19	Laos	88.3	80.5	69	Iran	70.7	51.3	119	Eritrea	55.3	25.6
20	Thailand	87.8	79.7	70	Romania	70.7	51.3	120	Ethiopia	55.3	25.6
21	South Korea	87.3	78.9	71	Slovakia	70.7	51.3	121	Rwanda	55.3	25.6
22	Japan	87.2	78.7	72	Guyana	69.7	49.6	122	Cameroon	53.0	21.8
23	Viet Nam	87.1	78.5	73	Paraguay	69.7	49.6	123	Central Afr. Rep.	53.0	21.8
24	Greece	86.6	77.7	74	Venezuela	69.7	49.6	124	Chad	53.0	21.8
25	Sri Lanka	86.5	77.6	75	Senegal	69.7	49.6	125	Congo	53.0	21.8
26	Argentina	85.8	76.4	76	Russia	68.9	48.3	126	Gabon	53.0	21.8
27	Cuba	85.6	76.1	77	Tanzania	68.7	48.0	127	Niger	52.8	21.4
28	Germany	85.6	76.0	78	Cambodia	68.4	47.4	128	Iraq	52.7	21.3
29	Panama	85.4	75.7	79	Sudan	67.0	45.2	129	Benin	52.0	20.1
30	Australia	85.2	75.3	80	Mongolia	66.7	44.6	130	Burkina Faso	52.0	20.1
31	Brazil	84.3	73.9	81	South Africa	66.3	44.0	131	Guinea	52.0	20.1
32	Indonesia	83.8	73.1	82	Bolivia	66.2	43.7	132	Guinea-Bissau	52.0	20.1
33	Fiji	83.5	72.5	83	Kazakhstan	65.6	42.8	133	Mauritania	52.0	20.1
34	Guatemala	82.0	70.1	84	Kyrgyzstan	65.6	42.8	134	Nigeria	52.0	20.1
35	Spain	81.8	69.8	85	Tajikistan	65.6	42.8	135	Sierra Leone	52.0	20.1
36	United States	81.8	69.7	86	Turkmenistan	65.6	42.8	136	Togo	52.0	20.1
37	Malaysia	81.7	69.6	87	Uzbekistan	65.6	42.8	137	Solomon Islands	48.7	14.7
38	Denmark	81.5	69.2	88	Ghana	65.5	42.6	138	Jordan	47.1	11.9
39	Myanmar	81.5	69.2	89	Luxembourg	65.3	42.3	139	Czech Rep.	41.9	3.3
40	Mali	81.1	68.6	90	Taiwan	65.3	42.3	140	Côte d'Ivoire	40.9	1.7
41	Poland	80.8	68.1	91	Morocco	65.1	41.9	141	Algeria	37.7	0.0
42	Israel	80.7	67.8	92	Pakistan	64.7	41.2	142	Kuwait	39.9	0.0
43	India	80.6	67.7	93	Philippines	64.3	40.6	143	Lebanon	39.9	0.0
44	Ecuador	79.3	65.6	94	Tunisia	63.8	39.7	144	Oman	39.9	0.0
45	Ireland	79.3	65.5	95	Macedonia	63.6	39.4	145	Papua New Guin.	34.0	0.0
46	Netherlands	78.5	64.2	96	Dem. Rep. Congo	63.0	38.5	146	Saudi Arabia	39.9	0.0
47	Egypt	78.0	63.4	97	Cyprus	60.5	34.4	147	Syria	39.9	0.0
48	France	77.4	62.5	98	Peru	60.2	33.8	148	United Arab Em.	39.9	0.0
49	Estonia	76.4	60.7	99	Armenia	58.9	31.7	149	Yemen	39.9	0.0
50	China	76.4	60.7	100	Azerbaijan	58.9	31.7				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Canada	92.5	87.6	10	Dominican Rep.	75.6	59.4	15	Nicaragua	74.2	57.1
2	Uruguay	88.3	80.5	11	Trin. & Tob.	75.6	59.4	20	Colombia	71.7	53.0
3	Argentina	85.8	76.4	12	Jamaica	75.6	59.4	21	Mexico	71.0	51.7
4	Cuba	85.6	76.1	13	Haiti	75.6	59.4	22	Venezuela	69.7	49.6
5	Panama	85.4	75.7	14	Chile	74.3	57.3	23	Guyana	69.7	49.6
6	Brazil	84.3	73.9	15	Belize	74.2	57.1	24	Paraguay	69.7	49.6
7	Guatemala	82.0	70.1	15	Costa Rica	74.2	57.1	25	Bolivia	66.2	43.7
8	United States	81.8	69.7	15	El Salvador	74.2	57.1	26	Peru	60.2	33.8
9	Ecuador	79.3	65.6	15	Honduras	74.2	57.1				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	95.8	93.0	8	Kazakhstan	65.6	42.8	14	Belarus	58.9	31.7
2	Bulgaria	95.4	92.4	8	Kyrgyzstan	65.6	42.8	14	Georgia	58.9	31.7
3	Hungary	91.8	86.3	8	Tajikistan	65.6	42.8	14	Moldova	58.9	31.7
4	Bosnia & Herz.	90.9	84.8	8	Turkmenistan	65.6	42.8	14	Ukraine	58.9	31.7
5	Romania	70.7	51.3	8	Uzbekistan	65.6	42.8	19	Czech Rep.	41.9	3.3
5	Slovakia	70.7	51.3	13	Macedonia	63.6	39.4				
7	Russia	68.9	48.3	14	Azerbaijan	58.9	31.7				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	New Zealand	99.4	99.0	7	Australia	85.2	75.3	13	Cambodia	68.4	47.4
2	Laos	88.3	80.5	8	Indonesia	83.8	73.1	14	Mongolia	66.7	44.6
3	Thailand	87.8	79.7	9	Fiji	83.5	72.5	15	Taiwan	65.3	42.3
4	South Korea	87.3	78.9	10	Malaysia	81.7	69.6	16	Philippines	64.3	40.6
5	Japan	87.2	78.7	11	Myanmar	81.5	69.2	17	Solomon Islands	48.7	14.7
6	Viet Nam	87.1	78.5	12	China	76.4	60.7	18	Papua New Guin.	34.0	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Finland	99.1	98.4	10	United Kingdom	90.5	84.2	19	France	77.4	62.5
2	Lithuania	97.7	96.2	11	Croatia	90.4	84.1	20	Estonia	76.4	60.7
3	Latvia	97.6	96.0	12	Greece	86.6	77.7	21	Austria	75.9	59.8
3	Slovenia	97.6	96.0	13	Germany	85.6	76.0	22	Belgium	75.7	59.6
5	Sweden	96.7	94.6	14	Spain	81.8	69.8	23	Luxembourg	65.3	42.3
6	Italy	95.7	92.8	15	Denmark	81.5	69.2	24	Cyprus	60.5	34.4
7	Norway	94.7	91.2	16	Poland	80.8	68.1	25	Iceland	57.0	28.5
8	Switzerland	93.3	88.9	17	Ireland	79.3	65.5				
9	Portugal	91.7	86.2	18	Netherlands	78.5	64.2				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Israel	80.7	67.8	7	Tunisia	63.8	39.7	11	Lebanon	39.9	0.0
2	Egypt	78.0	63.4	8	Armenia	58.9	31.7	11	Oman	39.9	0.0
3	Turkey	72.3	54.0	9	Iraq	52.7	21.3	11	Saudi Arabia	39.9	0.0
4	Iran	70.7	51.3	10	Jordan	47.1	11.9	11	Syria	39.9	0.0
5	Sudan	67.0	45.2	11	Algeria	37.7	0.0	11	United Arab Em.	39.9	0.0
6	Morocco	65.1	41.9	11	Kuwait	39.9	0.0	11	Yemen	39.9	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	86.5	77.6	3	Bangladesh	75.5	59.3	5	Pakistan	64.7	41.2

2	India	80.6	67.7	4	Nepal	72.3	53.9

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Mali	81.1	68.6	8	Namibia	57.5	29.4	24	Congo	53.0	21.8
2	Kenya	73.8	56.4	8	Swaziland	57.5	29.4	24	Gabon	53.0	21.8
3	Senegal	69.7	49.6	8	Zambia	57.5	29.4	29	Niger	52.8	21.4
4	Tanzania	68.7	48.0	8	Zimbabwe	57.5	29.4	30	Benin	52.0	20.1
5	South Africa	66.3	44.0	18	Uganda	56.7	28.0	30	Burkina Faso	52.0	20.1
6	Ghana	65.5	42.6	19	Burundi	55.3	25.6	30	Guinea	52.0	20.1
7	Dem. Rep. Congo	63.0	38.5	19	Djibouti	55.3	25.6	30	Guinea-Bissau	52.0	20.1
8	Angola	57.5	29.4	19	Eritrea	55.3	25.6	30	Mauritania	52.0	20.1
8	Botswana	57.5	29.4	19	Ethiopia	55.3	25.6	30	Nigeria	52.0	20.1
8	Madagascar	57.5	29.4	19	Rwanda	55.3	25.6	30	Sierra Leone	52.0	20.1
8	Malawi	57.5	29.4	24	Cameroon	53.0	21.8	30	Togo	52.0	20.1
8	Mauritius	57.5	29.4	24	Central Afr. Rep.	53.0	21.8	38	Côte d'Ivoire	40.9	1.7
8	Mozambique	57.5	29.4	24	Chad	53.0	21.8				

Water Stress (WATSTR)
Target value: 0 percent

Rank	Country	Value	PT
1	Albania	0.0	100.0
2	Austria	0.0	100.0
3	Belize	0.0	100.0
4	Benin	0.0	100.0
5	Bosnia & Herz.	0.0	100.0
6	Burundi	0.0	100.0
7	Cambodia	0.0	100.0
8	Cameroon	0.0	100.0
9	Congo	0.0	100.0
10	Costa Rica	0.0	100.0
11	Croatia	0.0	100.0
12	Cyprus	0.0	100.0
13	Dem. Rep. Congo	0.0	100.0
14	El Salvador	0.0	100.0
15	Eritrea	0.0	100.0
16	Fiji	0.0	100.0
17	Gabon	0.0	100.0
18	Ghana	0.0	100.0
19	Guatemala	0.0	100.0
20	Guinea	0.0	100.0
21	Guinea-Bissau	0.0	100.0
22	Guyana	0.0	100.0
23	Ireland	0.0	100.0
24	Jamaica	0.0	100.0
25	Laos	0.0	100.0
26	Latvia	0.0	100.0
27	Luxembourg	0.0	100.0
28	Macedonia	0.0	100.0
29	Mauritius	0.0	100.0
30	Nicaragua	0.0	100.0
31	Norway	0.0	100.0
32	Rwanda	0.0	100.0
33	Sierra Leone	0.0	100.0
34	Slovakia	0.0	100.0
35	Slovenia	0.0	100.0
36	Solomon Islands	0.0	100.0
37	Switzerland	0.0	100.0
38	Taiwan	0.0	100.0
39	Togo	0.0	100.0
40	Trin. & Tob.	0.0	100.0
41	Uruguay	0.0	100.0
42	Zambia	0.1	99.9
43	Indonesia	0.2	99.8
44	Sweden	0.4	99.6
45	Finland	0.4	99.5
46	Central Afr. Rep.	0.5	99.5
47	Malaysia	0.7	99.2
48	Iceland	0.9	99.0
49	Nepal	0.9	99.0
50	New Zealand	1.2	98.7
51	Uganda	1.4	98.5
52	Haiti	1.6	98.3
53	Canada	1.7	98.2
54	Papua New Guin.	1.8	98.1
55	Belarus	1.8	98.0
56	Côte d'Ivoire	1.8	98.0
57	Myanmar	1.9	97.9
58	Russia	2.1	97.7
59	Bolivia	2.1	97.7
60	Denmark	2.3	97.5
61	Brazil	2.3	97.5
62	Honduras	2.3	97.5
63	Estonia	2.5	97.2
64	Panama	2.6	97.2
65	Czech Rep.	2.6	97.2
66	Colombia	2.8	96.9
67	Philippines	3.0	96.7
68	Viet Nam	3.0	96.7
69	Swaziland	4.0	95.6
70	Greece	4.5	95.1
71	Nigeria	4.7	94.9
72	Lithuania	5.4	94.1
73	Angola	5.5	93.9
74	Poland	5.6	93.9
75	Japan	5.6	93.8
76	Georgia	7.0	92.2
77	France	8.4	90.7
78	United Kingdom	8.4	90.7
79	Thailand	8.8	90.3
80	Bangladesh	8.8	90.3
81	South Korea	9.7	89.3
82	Venezuela	9.7	89.3
83	Portugal	10.0	89.0
84	Lebanon	10.0	88.9
85	Sudan	10.7	88.2
86	Tanzania	10.8	88.0
87	Mongolia	11.3	87.6
88	Madagascar	11.9	86.9
89	Burkina Faso	12.2	86.6
90	Senegal	13.4	85.3
91	Mozambique	13.4	85.2
92	Mali	13.5	85.1
93	Kenya	13.9	84.7
94	Malawi	13.9	84.7
95	Turkey	13.9	84.7
96	Tajikistan	14.0	84.6
97	Mauritania	15.8	82.5
98	Germany	15.9	82.4
99	Chad	16.4	81.9
100	Chile	16.5	81.8
101	Sri Lanka	16.5	81.8
102	Peru	16.7	81.6
103	Romania	17.2	81.0
104	Italy	17.7	80.5
105	Ethiopia	18.2	80.0
106	Ecuador	19.2	78.8
107	China	19.6	78.4
108	Kazakhstan	20.1	77.8
109	Dominican Rep.	20.4	77.5
110	Zimbabwe	20.4	77.5
111	Kyrgyzstan	20.5	77.4
112	United States	21.3	76.5
113	Paraguay	23.5	74.1
114	Djibouti	23.6	74.0
115	Argentina	24.1	73.4
116	Netherlands	24.1	73.4
117	Ukraine	24.2	73.3
118	Algeria	24.5	73.0
119	Hungary	24.5	72.9
120	Iran	25.3	72.0
121	Egypt	25.5	71.9
122	Iraq	26.0	71.4
123	Turkmenistan	27.9	69.2
124	Cuba	28.7	68.4
125	Niger	28.7	68.4
126	Botswana	30.6	66.3
127	Azerbaijan	31.4	65.4
128	Mexico	31.5	65.2
129	Pakistan	33.4	63.2
130	India	33.5	63.0
131	Bulgaria	36.5	59.7
132	Spain	37.1	59.1
133	Oman	37.5	58.6
134	United Arab Em.	41.6	54.1
135	Uzbekistan	42.1	53.5
136	Australia	45.7	49.6
137	Morocco	47.6	47.5
138	Belgium	49.8	45.0
139	Saudi Arabia	51.6	43.0
140	Tunisia	51.9	42.7
141	Namibia	52.0	42.6
142	Moldova	54.7	39.6
143	South Africa	54.8	39.5
144	Syria	55.6	38.7
145	Yemen	55.9	38.3
146	Armenia	68.6	24.3
147	Jordan	75.0	17.2
148	Israel	75.3	16.9
149	Kuwait	90.6	0.0

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belize	0.0	100.0	1	Peru	16.7	100.0	19	Paraguay	23.5	76.7
1	Canada	1.7	100.0	1	Trin. & Tob.	0.0	100.0	20	Argentina	24.1	75.9
1	Chile	16.5	100.0	1	United States	21.3	100.0	21	Panama	2.6	75.3
1	Colombia	2.8	100.0	1	Uruguay	0.0	100.0	22	Nicaragua	0.0	72.2
1	Costa Rica	0.0	100.0	14	Mexico	31.5	95.1	23	Guatemala	0.0	71.9
1	Cuba	28.7	100.0	15	Bolivia	2.1	90.2	24	Honduras	2.3	53.6
1	Dominican Rep.	20.4	100.0	16	Venezuela	9.7	87.7	25	Ecuador	19.2	47.2
1	Guyana	0.0	100.0	17	Haiti	1.6	86.4	25	El Salvador	0.0	47.2
1	Jamaica	0.0	100.0	18	Brazil	2.3	81.9				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Slovakia	0.0	100.0	8	Georgia	7.0	92.2	15	Turkmenistan	27.9	69.2
1	Macedonia	0.0	100.0	9	Tajikistan	14.0	84.6	16	Azerbaijan	31.4	65.4
1	Bosnia & Herz.	0.0	100.0	10	Romania	17.2	81.0	17	Bulgaria	36.5	59.7
1	Albania	0.0	100.0	11	Kazakhstan	20.1	77.8	18	Uzbekistan	42.1	53.5
5	Belarus	1.8	98.0	12	Kyrgyzstan	20.5	77.4	19	Moldova	54.7	39.6
6	Russia	2.1	97.7	13	Ukraine	24.2	73.3				
7	Czech Rep.	2.6	97.2	14	Hungary	24.5	72.9				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Taiwan	0.0	100.0	7	Malaysia	0.7	99.2	13	Japan	5.6	93.8
1	Solomon Islands	0.0	100.0	8	New Zealand	1.2	98.7	14	Thailand	8.8	90.3
1	Laos	0.0	100.0	9	Papua New Guin.	1.8	98.1	15	South Korea	9.7	89.3
1	Fiji	0.0	100.0	10	Myanmar	1.9	97.9	16	Mongolia	11.3	87.6
1	Cambodia	0.0	100.0	11	Philippines	3.0	96.7	17	China	19.6	78.4
6	Indonesia	0.2	99.8	12	Viet Nam	3.0	96.7	18	Australia	45.7	49.6

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	0.0	100.0	10	Sweden	0.4	99.6	19	United Kingdom	8.4	90.7
1	Croatia	0.0	100.0	11	Finland	0.4	99.5	20	Portugal	10.0	89.0
1	Cyprus	0.0	100.0	12	Iceland	0.9	99.0	21	Germany	15.9	82.4
1	Ireland	0.0	100.0	13	Denmark	2.3	97.5	22	Italy	17.7	80.5
1	Latvia	0.0	100.0	14	Estonia	2.5	97.2	23	Netherlands	24.1	73.4
1	Luxembourg	0.0	100.0	15	Greece	4.5	95.1	24	Spain	37.1	59.1
1	Norway	0.0	100.0	16	Lithuania	5.4	94.1	25	Belgium	49.8	45.0
1	Slovenia	0.0	100.0	17	Poland	5.6	93.9				
1	Switzerland	0.0	100.0	18	France	8.4	90.7				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Lebanon	10.0	88.9	7	Iraq	26.0	71.4	13	Syria	55.6	38.7
2	Sudan	10.7	88.2	8	Oman	37.5	58.6	14	Yemen	55.9	38.3
3	Turkey	13.9	84.7	9	United Arab Em.	41.6	54.1	15	Armenia	68.6	24.3
4	Algeria	24.5	73.0	10	Morocco	47.6	47.5	16	Jordan	75.0	17.2
5	Iran	25.3	72.0	11	Saudi Arabia	51.6	43.0	17	Israel	75.3	16.9
6	Egypt	25.5	71.9	12	Tunisia	51.9	42.7	18	Kuwait	90.6	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Nepal	0.9	99.0	3	Sri Lanka	16.5	81.8	5	India	33.5	63.0

2	Bangladesh	8.8	90.3	4	Pakistan	33.4	63.2

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Benin	0.0	100.0	1	Togo	0.0	100.0	27	Mali	13.5	85.1
1	Burundi	0.0	100.0	15	Zambia	0.1	99.9	28	Kenya	13.9	84.7
1	Cameroon	0.0	100.0	16	Central Afr. Rep.	0.5	99.5	29	Malawi	13.9	84.7
1	Congo	0.0	100.0	17	Uganda	1.4	98.5	30	Mauritania	15.8	82.5
1	Dem. Rep. Congo	0.0	100.0	18	Côte d'Ivoire	1.8	98.0	31	Chad	16.4	81.9
1	Eritrea	0.0	100.0	19	Swaziland	4.0	95.6	32	Ethiopia	18.2	80.0
1	Gabon	0.0	100.0	20	Nigeria	4.7	94.9	33	Zimbabwe	20.4	77.5
1	Ghana	0.0	100.0	21	Angola	5.5	93.9	34	Djibouti	23.6	74.0
1	Guinea	0.0	100.0	22	Tanzania	10.8	88.0	35	Niger	28.7	68.4
1	Guinea-Bissau	0.0	100.0	23	Madagascar	11.9	86.9	36	Botswana	30.6	66.3
1	Mauritius	0.0	100.0	24	Burkina Faso	12.2	86.6	37	Namibia	52.0	42.6
1	Rwanda	0.0	100.0	25	Senegal	13.4	85.3	38	South Africa	54.8	39.5
1	Sierra Leone	0.0	100.0	26	Mozambique	13.4	85.2				

Change in the Volume of Growing Stock (FORGRO)
Target value: no decline (≥1.0)

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	1.0	100.0	51	Malaysia	1.0	100.0	101	Papua New Guin.	1.0	89.5
2	Algeria	1.1	100.0	52	Moldova	1.1	100.0	102	Senegal	1.0	89.4
3	Australia	1.0	100.0	53	Morocco	1.1	100.0	103	Myanmar	1.0	88.9
4	Austria	1.1	100.0	54	Netherlands	1.1	100.0	104	Guinea	1.0	88.5
5	Azerbaijan	1.0	100.0	55	New Zealand	1.0	100.0	105	Venezuela	1.0	87.7
6	Belarus	1.1	100.0	56	Norway	1.1	100.0	106	Mauritius	1.0	87.4
7	Belgium	1.1	100.0	57	Oman	1.0	100.0	107	Chad	1.0	86.4
8	Belize	1.0	100.0	58	Peru	1.0	100.0	108	Haiti	1.0	86.4
9	Bosnia & Herz.	1.1	100.0	59	Poland	1.1	100.0	109	Sierra Leone	1.0	84.1
10	Bulgaria	1.1	100.0	60	Portugal	1.1	100.0	110	Tajikistan	1.0	83.5
11	Canada	1.0	100.0	61	Romania	1.0	100.0	111	Bangladesh	1.0	83.1
12	Chile	1.1	100.0	62	Russia	1.0	100.0	112	Mongolia	1.0	83.0
13	China	1.1	100.0	63	Rwanda	2.5	100.0	113	Mali	1.0	82.9
14	Colombia	1.0	100.0	64	Saudi Arabia	1.0	100.0	114	Niger	1.0	82.3
15	Costa Rica	1.0	100.0	65	Slovakia	1.1	100.0	115	Brazil	1.0	81.9
16	Côte d'Ivoire	1.0	100.0	66	Slovenia	1.1	100.0	116	Sudan	1.0	81.7
17	Croatia	1.0	100.0	67	South Africa	1.0	100.0	117	Malawi	1.0	79.8
18	Cuba	1.2	100.0	68	South Korea	1.2	100.0	118	Namibia	1.0	79.6
19	Cyprus	1.0	100.0	69	Spain	1.1	100.0	119	Botswana	1.0	79.2
20	Czech Rep.	1.1	100.0	70	Sweden	1.0	100.0	120	Cameroon	1.0	78.4
21	Denmark	1.0	100.0	71	Switzerland	1.0	100.0	121	Zambia	0.9	77.9
22	Djibouti	1.0	100.0	72	Syria	1.1	100.0	122	Paraguay	0.9	76.7
23	Dominican Rep.	1.0	100.0	73	Trin. & Tob.	1.0	100.0	123	Argentina	0.9	75.9
24	Egypt	1.1	100.0	74	Tunisia	1.1	100.0	124	Panama	0.9	75.3
25	Fiji	1.0	100.0	75	Turkey	1.0	100.0	125	Tanzania	0.9	73.3
26	Finland	1.0	100.0	76	Turkmenistan	1.0	100.0	126	Nicaragua	0.9	72.2
27	France	1.1	100.0	77	Ukraine	1.1	100.0	127	Guatemala	0.9	71.9
28	Georgia	1.0	100.0	78	United Arab Em.	1.0	100.0	128	Nepal	0.9	70.3
29	Germany	1.2	100.0	79	United Kingdom	1.1	100.0	129	Armenia	0.9	70.1
30	Greece	1.0	100.0	80	United States	1.0	100.0	130	Ethiopia	0.9	69.8
31	Guyana	1.0	100.0	81	Uruguay	1.1	100.0	131	Burkina Faso	0.9	64.5
32	Hungary	1.0	100.0	82	Uzbekistan	1.3	100.0	132	Zimbabwe	0.9	64.4
33	Iceland	1.1	100.0	83	Viet Nam	1.1	100.0	133	Ghana	0.9	61.4
34	India	1.0	100.0	84	Yemen	1.0	100.0	134	Philippines	0.9	57.5
35	Iran	1.0	100.0	85	Gabon	1.0	99.0	135	Cambodia	0.9	56.1
36	Iraq	1.0	100.0	86	Eritrea	1.0	98.8	136	Honduras	0.9	53.6
37	Ireland	1.1	100.0	87	Congo	1.0	98.4	137	Uganda	0.9	52.4
38	Israel	1.0	100.0	88	Central Afr. Rep.	1.0	97.2	138	Sri Lanka	0.9	51.5
39	Italy	1.1	100.0	89	Swaziland	1.0	95.5	139	Ecuador	0.9	47.2
40	Jamaica	1.0	100.0	90	Angola	1.0	95.4	140	El Salvador	0.9	47.2
41	Japan	1.1	100.0	91	Mexico	1.0	95.1	141	Solomon Islands	0.9	47.2
42	Jordan	1.0	100.0	92	Dem. Rep. Congo	1.0	94.8	142	Pakistan	0.9	46.0
43	Kazakhstan	1.0	100.0	93	Mozambique	1.0	94.4	143	Nigeria	0.9	38.8
44	Kuwait	1.2	100.0	94	Madagascar	1.0	93.7	144	Mauritania	0.8	30.9
45	Kyrgyzstan	1.1	100.0	95	Guinea-Bissau	1.0	91.4	145	Benin	0.8	17.8
46	Latvia	1.1	100.0	96	Thailand	1.0	91.4	146	Burundi	0.6	0.0
47	Lebanon	1.1	100.0	97	Kenya	1.0	90.4	147	Indonesia	0.7	0.0
48	Lithuania	1.1	100.0	98	Bolivia	1.0	90.2	148	Togo	0.6	0.0
49	Luxembourg	1.0	100.0	99	Estonia	1.0	89.8				
50	Macedonia	1.0	100.0	100	Laos	1.0	89.7				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belize	1.0	100.0	1	Peru	1.0	100.0	19	Paraguay	0.9	76.7
1	Canada	1.0	100.0	1	Trin. & Tob.	1.0	100.0	20	Argentina	0.9	75.9
1	Chile	1.1	100.0	1	United States	1.0	100.0	21	Panama	0.9	75.3
1	Colombia	1.0	100.0	1	Uruguay	1.1	100.0	22	Nicaragua	0.9	72.2
1	Costa Rica	1.0	100.0	14	Mexico	1.0	95.1	23	Guatemala	0.9	71.9
1	Cuba	1.2	100.0	15	Bolivia	1.0	90.2	24	Honduras	0.9	53.6
1	Dominican Rep.	1.0	100.0	16	Venezuela	1.0	87.7	25	Ecuador	0.9	47.2
1	Guyana	1.0	100.0	17	Haiti	1.0	86.4	25	El Salvador	0.9	47.2
1	Jamaica	1.0	100.0	18	Brazil	1.0	81.9				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Uzbekistan	1.3	100.0	1	Macedonia	1.0	100.0	1	Bosnia and Herz.	1.1	100.0
1	Ukraine	1.1	100.0	1	Kyrgyzstan	1.1	100.0	1	Belarus	1.1	100.0
1	Turkmenistan	1.0	100.0	1	Kazakhstan	1.0	100.0	1	Azerbaijan	1.0	100.0
1	Slovakia	1.1	100.0	1	Hungary	1.0	100.0	1	Albania	1.0	100.0
1	Russia	1.0	100.0	1	Georgia	1.0	100.0	19	Tajikistan	1.0	83.5
1	Romania	1.0	100.0	1	Czech Rep.	1.1	100.0				
1	Moldova	1.1	100.0	1	Bulgaria	1.1	100.0				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	1.0	100.0	1	South Korea	1.2	100.0	13	Mongolia	1.0	83.0
1	China	1.1	100.0	1	Viet Nam	1.1	100.0	14	Philippines	0.9	57.5
1	Fiji	1.0	100.0	9	Thailand	1.0	91.4	15	Cambodia	0.9	56.1
1	Japan	1.1	100.0	10	Laos	1.0	89.7	16	Solomon Islands	0.9	47.2
1	Malaysia	1.0	100.0	11	Papua New Guin.	1.0	89.5	17	Indonesia	0.7	0.0
1	New Zealand	1.0	100.0	12	Myanmar	1.0	88.9				

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	1.1	100.0	1	Iceland	1.1	100.0	1	Portugal	1.1	100.0
1	Belgium	1.1	100.0	1	Ireland	1.1	100.0	1	Slovenia	1.1	100.0
1	Croatia	1.0	100.0	1	Italy	1.1	100.0	1	Spain	1.1	100.0
1	Cyprus	1.0	100.0	1	Latvia	1.1	100.0	1	Sweden	1.0	100.0
1	Denmark	1.0	100.0	1	Lithuania	1.1	100.0	1	Switzerland	1.0	100.0
1	Finland	1.0	100.0	1	Luxembourg	1.0	100.0	1	United Kingdom	1.1	100.0
1	France	1.1	100.0	1	Netherlands	1.1	100.0	25	Estonia	1.0	89.8
1	Germany	1.2	100.0	1	Norway	1.1	100.0				
1	Greece	1.0	100.0	1	Poland	1.1	100.0				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Algeria	1.1	100.0	1	Kuwait	1.2	100.0	1	Tunisia	1.1	100.0
1	Egypt	1.1	100.0	1	Lebanon	1.1	100.0	1	Turkey	1.0	100.0
1	Iran	1.0	100.0	1	Morocco	1.1	100.0	1	United Arab Em.	1.0	100.0
1	Iraq	1.0	100.0	1	Oman	1.0	100.0	1	Yemen	1.0	100.0
1	Israel	1.0	100.0	1	Saudi Arabia	1.0	100.0	17	Sudan	1.0	81.7
1	Jordan	1.0	100.0	1	Syria	1.1	100.0	18	Armenia	0.9	70.1

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	India	1.0	100.0	3	Nepal	0.9	70.3	5	Pakistan	0.9	46.0

2	Bangladesh	1.0	83.1	4	Sri Lanka	0.9	51.5

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Côte d'Ivoire	1.0	100.0	14	Guinea-Bissau	1.0	91.4	27	Zambia	0.9	77.9
1	Djibouti	1.0	100.0	15	Kenya	1.0	90.4	28	Tanzania	0.9	73.3
1	Rwanda	2.5	100.0	16	Senegal	1.0	89.4	29	Ethiopia	0.9	69.8
1	South Africa	1.0	100.0	17	Guinea	1.0	88.5	30	Burkina Faso	0.9	64.5
5	Gabon	1.0	99.0	18	Mauritius	1.0	87.4	31	Zimbabwe	0.9	64.4
6	Eritrea	1.0	98.8	19	Chad	1.0	86.4	32	Ghana	0.9	61.4
7	Congo	1.0	98.4	20	Sierra Leone	1.0	84.1	33	Uganda	0.9	52.4
8	Central Afr. Rep.	1.0	97.2	21	Mali	1.0	82.9	34	Nigeria	0.9	38.8
9	Swaziland	1.0	95.5	22	Niger	1.0	82.3	35	Mauritania	0.8	30.9
10	Angola	1.0	95.4	23	Malawi	1.0	79.8	36	Benin	0.8	17.8
11	Dem. Rep. Congo	1.0	94.8	24	Namibia	1.0	79.6	37	Burundi	0.6	0.0
12	Mozambique	1.0	94.4	25	Botswana	1.0	79.2	37	Togo	0.6	0.0

Conservation Risk Index (CRI)
Target value: 0.5

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belize	0.5	100.0	51	Ecuador	0.5	90.1	101	Burkina Faso	0.2	46.1
2	Congo	0.5	100.0	52	Algeria	0.4	89.5	102	Nepal	0.2	40.6
3	Gabon	0.5	100.0	53	Papua New Guin.	0.4	89.4	103	Argentina	0.2	39.8
4	Iceland	0.5	100.0	54	Russia	0.4	87.9	104	Italy	0.2	39.3
5	Saudi Arabia	0.5	100.0	55	Chad	0.4	86.6	105	Senegal	0.2	39.1
6	Swaziland	0.5	100.0	56	Australia	0.4	86.1	106	Armenia	0.2	37.7
7	Switzerland	0.5	100.0	57	Burundi	0.4	84.1	107	Uzbekistan	0.2	36.2
8	Taiwan	0.5	100.0	58	Ghana	0.4	84.1	108	Spain	0.2	35.6
9	Togo	0.5	100.0	59	Cameroon	0.4	82.6	109	France	0.2	34.7
10	United Kingdom	0.5	100.0	60	New Zealand	0.4	82.3	110	Cuba	0.2	34.4
11	Zambia	0.5	100.0	61	Côte d'Ivoire	0.4	82.2	111	Romania	0.2	32.8
12	United Arab Em.	0.5	100.0	62	Norway	0.4	81.3	112	Morocco	0.2	30.4
13	Namibia	0.5	100.0	63	Chile	0.4	80.7	113	Sudan	0.2	30.1
14	Zimbabwe	0.5	100.0	64	Austria	0.4	80.1	114	Myanmar	0.1	29.3
15	Cambodia	0.5	100.0	65	South Africa	0.4	77.0	115	Viet Nam	0.1	28.5
16	Jordan	0.5	100.0	66	Mexico	0.4	76.9	116	Georgia	0.1	28.5
17	Laos	0.5	100.0	67	Guatemala	0.4	76.1	117	Portugal	0.1	26.7
18	Venezuela	0.5	100.0	68	Sweden	0.4	75.8	118	Bulgaria	0.1	26.6
19	Central Afr. Rep.	0.5	100.0	69	United States	0.4	74.7	119	Belarus	0.1	26.4
20	Botswana	0.5	100.0	70	China	0.4	74.7	120	Kazakhstan	0.1	24.6
21	Mongolia	0.5	100.0	71	Rwanda	0.4	74.6	121	Ireland	0.1	24.0
22	Guinea-Bissau	0.5	100.0	72	Kuwait	0.4	73.7	122	Syria	0.1	21.1
23	Kenya	0.5	100.0	73	Indonesia	0.4	73.1	123	Macedonia	0.1	20.2
24	Dem. Rep. Congo	0.5	100.0	74	Israel	0.4	72.9	124	Netherlands	0.1	19.7
25	Bolivia	0.5	100.0	75	Honduras	0.4	72.7	125	Croatia	0.1	19.7
26	Tanzania	0.5	100.0	76	Nicaragua	0.4	70.6	126	Greece	0.1	18.9
27	Guyana	0.5	99.9	77	Ethiopia	0.4	70.4	127	South Korea	0.1	17.2
28	Uganda	0.5	99.9	78	Brazil	0.4	70.3	128	India	0.1	15.0
29	Mozambique	0.5	99.8	79	Paraguay	0.3	69.3	129	Lithuania	0.1	13.0
30	Angola	0.5	99.7	80	Eritrea	0.3	68.8	130	Sierra Leone	0.1	12.9
31	Niger	0.5	99.7	81	Poland	0.3	67.5	131	Mauritius	0.1	12.6
32	Malaysia	0.5	99.4	82	Luxembourg	0.3	66.9	132	El Salvador	0.1	12.4
33	Turkmenistan	0.5	99.2	83	Jamaica	0.3	66.4	133	Hungary	0.1	12.1
34	Finland	0.5	98.9	84	Cyprus	0.3	65.7	134	Turkey	0.1	10.8
35	Benin	0.5	98.9	85	Thailand	0.3	64.6	135	Ukraine	0.0	9.7
36	Trin. & Tob.	0.5	98.8	86	Mauritania	0.3	64.0	136	Belgium	0.0	9.6
37	Peru	0.5	98.1	87	Germany	0.3	62.7	137	Denmark	0.0	9.6
38	Sri Lanka	0.5	97.6	88	Latvia	0.3	61.3	138	Solomon Islands	0.0	6.5
39	Pakistan	0.5	95.6	89	Slovenia	0.3	60.4	139	Haiti	0.0	5.5
40	Iran	0.5	95.1	90	Slovakia	0.3	59.7	140	Albania	0.0	5.5
41	Costa Rica	0.5	95.0	91	Tajikistan	0.3	58.3	141	Fiji	0.0	4.9
42	Philippines	0.5	94.0	92	Mali	0.3	56.5	142	Bangladesh	0.0	4.4
43	Panama	0.5	93.9	93	Kyrgyzstan	0.3	56.4	143	Moldova	0.0	3.0
44	Japan	0.5	93.8	94	Madagascar	0.3	54.5	144	Lebanon	0.0	2.9
45	Estonia	0.5	93.7	95	Guinea	0.3	53.8	145	Iraq	0.0	2.8
46	Egypt	0.5	93.7	96	Dominican Rep.	0.3	53.2	146	Bosnia & Herz.	0.0	1.9
47	Colombia	0.5	93.7	97	Nigeria	0.3	52.9	147	Uruguay	0.0	1.0
48	Canada	0.5	92.7	98	Tunisia	0.3	50.3	148	Yemen	0.0	0.3
49	Oman	0.5	91.8	99	Czech Rep.	0.2	49.7	149	Djibouti	0.0	0.0
50	Malawi	0.5	91.7	100	Azerbaijan	0.2	46.2				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belize	0.5	100.0	10	Canada	0.5	92.7	19	Paraguay	0.3	69.3
1	Bolivia	0.5	100.0	11	Ecuador	0.5	90.1	20	Jamaica	0.3	66.4
1	Venezuala	0.5	100.0	12	Chile	0.4	80.7	21	Dominican Rep.	0.3	53.2
4	Guyana	0.5	99.9	13	Mexico	0.4	76.9	22	Argentina	0.2	39.8
5	Trin. & Tob.	0.5	98.8	14	Guatemala	0.4	76.1	23	Cuba	0.2	34.4
6	Peru	0.5	98.1	15	United States	0.4	74.7	24	El Salvador	0.1	12.4
7	Costa Rica	0.5	95.0	16	Honduras	0.4	72.7	25	Haiti	0.0	5.5
8	Panama	0.5	93.9	17	Nicaragua	0.4	70.6	26	Uruguay	0.0	1.0
9	Colombia	0.5	93.7	18	Brazil	0.4	70.3				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Turkmenistan	0.5	99.2	8	Uzbekistan	0.2	36.2	15	Hungary	0.1	12.1
2	Russia	0.4	87.9	9	Romania	0.2	32.8	16	Ukraine	0.0	9.7
3	Slovakia	0.3	59.7	10	Georgia	0.1	28.5	17	Albania	0.0	5.5
4	Tajikistan	0.3	58.3	11	Bulgaria	0.1	26.6	18	Moldova	0.0	3.0
5	Kyrgyzstan	0.3	56.4	12	Belarus	0.1	26.4	19	Bosnia & Herz.	0.0	1.9
6	Czech Rep.	0.2	49.7	13	Kazakhstan	0.1	24.6				
7	Azerbaijan	0.2	46.2	14	Macedonia	0.1	20.2				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Cambodia	0.5	100.0	7	Japan	0.5	93.8	13	Thailand	0.3	64.6
1	Laos	0.5	100.0	8	Papua New Guin.	0.4	89.4	14	Myanmar	0.1	29.3
1	Mongolia	0.5	100.0	9	Australia	0.4	86.1	15	Viet Nam	0.1	28.5
1	Taiwan	0.5	100.0	10	New Zealand	0.4	82.3	16	South Korea	0.1	17.2
5	Malaysia	0.5	99.4	11	China	0.4	74.7	17	Solomon Islands	0.0	6.5
6	Philippines	0.5	94.0	12	Indonesia	0.4	73.1	18	Fiji	0.0	4.9

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Iceland	0.5	100.0	10	Luxembourg	0.3	66.9	19	Ireland	0.1	24.0
1	Switzerland	0.5	100.0	11	Cyprus	0.3	65.7	20	Netherlands	0.1	19.7
1	United Kingdom	0.5	100.0	12	Germany	0.3	62.7	21	Croatia	0.1	19.7
4	Finland	0.5	98.9	13	Latvia	0.3	61.3	22	Greece	0.1	18.9
5	Estonia	0.5	93.7	14	Slovenia	0.3	60.4	23	Lithuania	0.1	13.0
6	Norway	0.4	81.3	15	Italy	0.2	39.3	24	Belgium	0.0	9.6
7	Austria	0.4	80.1	16	Spain	0.2	35.6	24	Denmark	0.0	9.6
8	Sweden	0.4	75.8	17	France	0.2	34.7				
9	Poland	0.3	67.5	18	Portugal	0.1	26.7				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Jordan	0.5	100.0	7	Algeria	0.4	89.5	13	Sudan	0.2	30.1
1	Saudi Arabia	0.5	100.0	8	Kuwait	0.4	73.7	14	Syria	0.1	21.1
1	United Arab Em.	0.5	100.0	9	Israel	0.4	72.9	15	Turkey	0.1	10.8
4	Iran	0.5	95.1	10	Tunisia	0.3	50.3	16	Lebanon	0.0	2.9
5	Egypt	0.5	93.7	11	Armenia	0.2	37.7	17	Iraq	0.0	2.8
6	Oman	0.5	91.8	12	Morocco	0.2	30.4	18	Yemen	0.0	0.3

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	0.5	97.6	3	Nepal	0.2	40.6	5	Bangladesh	0.0	4.4

2	Pakistan	0.5	95.6	4	India	0.1	15.0

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Botswana	0.5	100.0	14	Uganda	0.5	99.9	27	Ethiopia	0.4	70.4
1	Central Afr. Rep.	0.5	100.0	15	Mozambique	0.5	99.8	28	Eritrea	0.3	68.8
1	Congo	0.5	100.0	16	Angola	0.5	99.7	29	Mauritania	0.3	64.0
1	Dem. Rep. Congo	0.5	100.0	17	Niger	0.5	99.7	30	Mali	0.3	56.5
1	Gabon	0.5	100.0	18	Benin	0.5	98.9	31	Madagascar	0.3	54.5
1	Guinea-Bissau	0.5	100.0	19	Malawi	0.5	91.7	32	Guinea	0.3	53.8
1	Kenya	0.5	100.0	20	Chad	0.4	86.6	33	Nigeria	0.3	52.9
1	Namibia	0.5	100.0	21	Burundi	0.4	84.1	34	Burkina Faso	0.2	46.1
1	Swaziland	0.5	100.0	22	Ghana	0.4	84.1	35	Senegal	0.2	39.1
1	Tanzania	0.5	100.0	23	Cameroon	0.4	82.6	36	Sierra Leone	0.1	12.9
1	Togo	0.5	100.0	24	Côte d'Ivoire	0.4	82.2	37	Mauritius	0.1	12.6
1	Zambia	0.5	100.0	25	South Africa	0.4	77.0	38	Djibouti	0.0	0.0
1	Zimbabwe	0.5	100.0	26	Rwanda	0.4	74.6				

Effective Conservation (EFFCON)
Target value: 10 percent

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Botswana	10.0	100.0	51	Guatemala	6.6	66.4	101	Kazakhstan	2.1	21.3
2	Cambodia	10.0	100.0	52	Niger	6.6	66.3	102	Belarus	2.0	20.3
3	Central Afr. Rep.	10.0	100.0	53	China	6.5	65.5	103	United Kingdom	1.9	19.0
4	Saudi Arabia	10.0	100.0	54	Switzerland	6.5	65.3	104	Mali	1.8	17.9
5	Taiwan	10.0	100.0	55	Israel	6.5	64.9	105	Italy	1.8	17.6
6	Zambia	10.0	99.7	56	Austria	6.3	63.0	106	Turkmenistan	1.7	16.9
7	Indonesia	9.9	99.2	57	Nicaragua	6.3	62.9	107	India	1.7	16.6
8	Benin	9.9	98.7	58	Algeria	6.2	62.1	108	Costa Rica	1.6	15.9
9	Zimbabwe	9.8	98.3	59	Cameroon	6.2	61.6	109	Georgia	1.5	14.7
10	Namibia	9.8	97.8	60	Chile	6.2	61.5	110	Slovenia	1.3	13.3
11	Malaysia	9.7	97.3	61	Norway	5.9	59.3	111	South Korea	1.3	12.6
12	Belize	9.7	96.7	62	Sweden	5.2	52.3	112	Azerbaijan	1.2	11.9
13	Angola	9.6	95.7	63	Sri Lanka	5.1	50.8	113	Uzbekistan	1.2	11.6
14	Côte d'Ivoire	9.5	94.7	64	Guyana	5.0	49.5	114	Belgium	1.2	11.5
15	Congo	9.5	94.5	65	Nepal	4.9	49.3	115	Macedonia	1.1	11.4
16	Gabon	9.4	94.3	66	Mexico	4.8	48.1	116	Armenia	1.0	10.4
17	Laos	9.4	94.2	67	Paraguay	4.8	47.7	117	Morocco	1.0	9.9
18	Colombia	9.4	94.0	68	Slovakia	4.7	47.3	118	Bangladesh	0.9	9.5
19	Panama	9.3	93.1	69	Pakistan	4.7	46.7	119	Hungary	0.9	8.9
20	Tanzania	9.3	92.8	70	Luxembourg	4.7	46.5	120	Tunisia	0.9	8.9
21	Mozambique	9.3	92.8	71	Myanmar	4.6	45.6	121	Guinea	0.9	8.5
22	Bolivia	9.2	92.4	72	Senegal	4.4	44.2	122	Croatia	0.8	7.7
23	Oman	9.2	91.8	73	Eritrea	4.4	43.5	123	Lithuania	0.7	7.3
24	Venezuela	9.1	91.5	74	South Africa	4.3	43.3	124	Portugal	0.7	7.1
25	Estonia	9.0	90.0	75	Latvia	4.2	42.1	125	Ukraine	0.5	5.5
26	Ecuador	8.9	88.9	76	Philippines	4.1	41.4	126	Sierra Leone	0.5	5.0
27	Uganda	8.7	87.0	77	Iran	4.1	41.4	127	Greece	0.5	4.8
28	Dem. Rep. Congo	8.6	86.3	78	Trin. & Tob.	4.1	41.1	128	Mauritania	0.4	4.3
29	New Zealand	8.5	84.9	79	Nigeria	4.1	41.0	129	Netherlands	0.4	3.7
30	United States	8.5	84.9	80	Burundi	4.1	40.9	130	Syria	0.3	2.8
31	Burkina Faso	8.3	83.2	81	Guinea-Bissau	3.9	39.4	131	Turkey	0.3	2.8
32	Iceland	8.3	82.9	82	Togo	3.9	38.7	132	Ireland	0.2	2.5
33	Kenya	8.3	82.8	83	Argentina	3.4	33.9	133	United Arab Em.	0.2	2.3
34	Papua New Guin.	8.2	81.5	84	Poland	3.3	33.3	134	Moldova	0.2	1.7
35	Peru	8.0	79.6	85	Sudan	3.1	31.2	135	Albania	0.2	1.6
36	Australia	7.9	79.0	86	Tajikistan	2.9	29.3	136	Swaziland	0.1	1.2
37	Brazil	7.9	78.7	87	Jamaica	2.9	28.6	137	Denmark	0.1	1.1
38	Malawi	7.9	78.6	88	Czech Rep.	2.7	27.1	138	Solomon Islands	0.1	0.6
39	Jordan	7.7	77.3	89	Dominican Rep.	2.6	26.4	139	El Salvador	0.1	0.6
40	Finland	7.7	76.8	90	Viet Nam	2.6	25.7	140	Haiti	0.1	0.5
41	Mongolia	7.6	76.1	91	Japan	2.6	25.6	141	Bosnia & Herz.	0.0	0.5
42	Russia	7.4	74.5	92	Germany	2.5	25.2	142	Iraq	0.0	0.4
43	Thailand	7.3	73.4	93	France	2.5	25.1	143	Uruguay	0.0	0.2
44	Chad	7.3	73.3	94	Madagascar	2.5	25.1	144	Yemen	0.0	0.1
45	Egypt	7.3	73.0	95	Cuba	2.5	24.5	145	Djibouti	0.0	0.0
46	Canada	7.3	72.7	96	Spain	2.3	23.2	146	Fiji	0.0	0.0
47	Ghana	7.1	71.2	97	Bulgaria	2.3	22.7	147	Kuwait	0.0	0.0
48	Rwanda	7.0	69.7	98	Romania	2.2	22.2	148	Lebanon	0.0	0.0
49	Honduras	6.9	69.5	99	Cyprus	2.2	22.1	149	Mauritius	0.0	0.0
50	Ethiopia	6.8	68.1	100	Kyrgyzstan	2.2	21.9				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belize	9.7	96.7	10	Canada	7.3	72.7	19	Argentina	3.4	33.9
2	Colombia	9.4	94.0	11	Honduras	6.9	69.5	20	Jamaica	2.9	28.6
3	Panama	9.3	93.1	12	Guatemala	6.6	66.4	21	Dominican Rep.	2.6	26.4
4	Bolivia	9.2	92.4	13	Nicaragua	6.3	62.9	22	Cuba	2.5	24.5
5	Venezuela	9.1	91.5	14	Chile	6.2	61.5	23	Costa Rica	1.6	15.9
6	Ecuador	8.9	88.9	15	Guyana	5.0	49.5	24	El Salvador	0.1	0.6
7	United States	8.5	84.9	16	Mexico	4.8	48.1	25	Haiti	0.1	0.5
8	Peru	8.0	79.6	17	Paraguay	4.8	47.7	26	Uruguay	0.0	0.2
9	Brazil	7.9	78.7	18	Trin. & Tob.	4.1	41.1				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Russia	7.4	74.5	8	Kazakhstan	2.1	21.3	15	Hungary	0.9	8.9
2	Slovakia	4.7	47.3	9	Belarus	2.0	20.3	16	Ukraine	0.5	5.5
3	Tajikistan	2.9	29.3	10	Turkmenistan	1.7	16.9	17	Moldova	0.2	1.7
4	Czech Rep.	2.7	27.1	11	Georgia	1.5	14.7	18	Albania	0.2	1.6
5	Bulgaria	2.3	22.7	12	Azerbaijan	1.2	11.9	19	Bosnia & Herz.	0.0	0.5
6	Romania	2.2	22.2	13	Uzbekistan	1.2	11.6				
7	Kyrgyzstan	2.2	21.9	14	Macedonia	1.1	11.4				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Cambodia	10.0	100.0	7	Papua New Guin.	8.2	81.5	13	Philippines	4.1	41.4
1	Taiwan	10.0	100.0	8	Australia	7.9	79.0	14	Viet Nam	2.6	25.7
3	Indonesia	9.9	99.2	9	Mongolia	7.6	76.1	15	Japan	2.6	25.6
4	Malaysia	9.7	97.3	10	Thailand	7.3	73.4	16	South Korea	1.3	12.6
5	Laos	9.4	94.2	11	China	6.5	65.5	17	Solomon Islands	0.1	0.6
6	New Zealand	8.5	84.9	12	Myanmar	4.6	45.6	18	Fiji	0.0	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Estonia	9.0	90.0	10	Poland	3.3	33.3	19	Croatia	0.8	7.7
2	Iceland	8.3	82.9	11	Germany	2.5	25.2	20	Lithuania	0.7	7.3
3	Finland	7.7	76.8	12	France	2.5	25.1	21	Portugal	0.7	7.1
4	Switzerland	6.5	65.3	13	Spain	2.3	23.2	22	Greece	0.5	4.8
5	Austria	6.3	63.0	14	Cyprus	2.2	22.1	23	Netherlands	0.4	3.7
6	Norway	5.9	59.3	15	United Kingdom	1.9	19.0	24	Ireland	0.2	2.5
7	Sweden	5.2	52.3	16	Italy	1.8	17.6	25	Denmark	0.1	1.1
8	Luxembourg	4.7	46.5	17	Slovenia	1.3	13.3				
9	Latvia	4.2	42.1	18	Belgium	1.2	11.5				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Saudi Arabia	10.0	100.0	7	Iran	4.1	41.4	13	Turkey	0.3	2.8
2	Oman	9.2	91.8	8	Sudan	3.1	31.2	14	United Arab Em.	0.2	2.3
3	Jordan	7.7	77.3	9	Armenia	1.0	10.4	15	Iraq	0.0	0.4
4	Egypt	7.3	73.0	10	Morocco	1.0	9.9	16	Yemen	0.0	0.1
5	Israel	6.5	64.9	11	Tunisia	0.9	8.9	17	Lebanon	0.0	0.0
6	Algeria	6.2	62.1	12	Syria	0.3	2.8	18	Kuwait	0.0	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	5.1	50.8	3	Pakistan	4.7	46.7	5	Bangladesh	0.9	9.5

2	Nepal	4.9	49.3	4	India	1.7	16.6

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Botswana	10.0	100.0	14	Dem. Rep. Congo	8.6	86.3	27	Nigeria	4.1	41.0
1	Central Afr. Rep.	10.0	100.0	15	Burkina Faso	8.3	83.2	28	Burundi	4.1	40.9
3	Zambia	10.0	99.7	16	Kenya	8.3	82.8	29	Guinea-Bissau	3.9	39.4
4	Benin	9.9	98.7	17	Malawi	7.9	78.6	30	Togo	3.9	38.7
5	Zimbabwe	9.8	98.3	18	Chad	7.3	73.3	31	Madagascar	2.5	25.1
6	Namibia	9.8	97.8	19	Ghana	7.1	71.2	32	Mali	1.8	17.9
7	Angola	9.6	95.7	20	Rwanda	7.0	69.7	33	Guinea	0.9	8.5
8	Côte d'Ivoire	9.5	94.7	21	Ethiopia	6.8	68.1	34	Sierra Leone	0.5	5.0
9	Congo	9.5	94.5	22	Niger	6.6	66.3	35	Mauritania	0.4	4.3
10	Gabon	9.4	94.3	23	Cameroon	6.2	61.6	36	Swaziland	0.1	1.2
11	Tanzania	9.3	92.8	24	Senegal	4.4	44.2	37	Djibouti	0.0	0.0
12	Mozambique	9.3	92.8	25	Eritrea	4.4	43.5	37	Mauritius	0.0	0.0
13	Uganda	8.7	87.0	26	South Africa	4.3	43.3				

Critical Habitat Protection (AZE)
Target value: 100%

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Ghana	100.0	100.0	23	Venezuela	55.6	55.6	45	Mexico	31.0	31.0
2	Israel	100.0	100.0	24	Côte d'Ivoire	50.0	50.0	46	Fiji	30.0	30.0
3	Kenya	100.0	100.0	25	France	50.0	50.0	47	Chile	28.6	28.6
4	Malawi	100.0	100.0	26	Guinea	50.0	50.0	48	Japan	27.8	27.8
5	Nigeria	100.0	100.0	27	Panama	50.0	50.0	49	Indonesia	19.0	19.0
6	Portugal	100.0	100.0	28	South Africa	50.0	50.0	50	Haiti	18.8	18.8
7	Russia	100.0	100.0	29	Spain	50.0	50.0	51	Myanmar	16.7	16.7
8	Sri Lanka	100.0	100.0	30	Trin. & Tob.	50.0	50.0	52	Papua New Guin.	16.7	16.7
9	Tanzania	88.9	88.9	31	Uganda	50.0	50.0	53	Cameroon	14.3	14.3
10	Dominican Rep.	83.3	83.3	32	Cuba	47.2	47.2	54	Angola	0.0	0.0
11	New Zealand	78.6	78.6	33	China	45.7	45.7	55	Armenia	0.0	0.0
12	Canada	75.0	75.0	34	India	43.8	43.8	56	Djibouti	0.0	0.0
13	Costa Rica	75.0	75.0	35	Bolivia	42.9	42.9	57	Guatemala	0.0	0.0
14	Ethiopia	75.0	75.0	36	Argentina	40.0	40.0	58	Iran	0.0	0.0
15	Mauritius	75.0	75.0	37	Jamaica	40.0	40.0	59	Italy	0.0	0.0
16	Zimbabwe	75.0	75.0	38	Ecuador	39.5	39.5	60	Kyrgyzstan	0.0	0.0
17	Australia	69.4	69.4	39	Honduras	39.3	39.3	61	Mozambique	0.0	0.0
18	Malaysia	66.7	66.7	40	Colombia	37.2	37.2	62	Oman	0.0	0.0
19	United Kingdom	66.7	66.7	41	Philippines	36.4	36.4	63	Pakistan	0.0	0.0
20	Madagascar	59.4	59.4	42	Dem. Rep. Congo	33.3	33.3	64	Solomon Islands	0.0	0.0
21	United States	58.3	58.3	43	Peru	32.3	32.3	65	Turkey	0.0	0.0
22	Viet Nam	58.3	58.3	44	Brazil	32.1	32.1				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Dominican Rep.	83.3	83.3	8	Cuba	47.2	47.2	15	Peru	32.3	32.3
2	Canada	75.0	75.0	9	Bolivia	42.9	42.9	16	Brazil	32.1	32.1
2	Costa Rica	75.0	75.0	10	Argentina	40.0	40.0	17	Mexico	31.0	31.0
4	United States	58.3	58.3	10	Jamaica	40.0	40.0	18	Chile	28.6	28.6
5	Venezuela	55.6	55.6	12	Ecuador	39.5	39.5	19	Haiti	18.8	18.8
6	Panama	50.0	50.0	13	Honduras	39.3	39.3	20	Guatemala	0.0	0.0
6	Trin. & Tob.	50.0	50.0	14	Colombia	37.2	37.2				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Russia	100.0	100.0	2	Kyrgyzstan	0.0	0.0				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	New Zealand	78.6	78.6	5	China	45.7	45.7	9	Indonesia	19.0	19.0
2	Australia	69.4	69.4	6	Philippines	36.4	36.4	10	Myanmar	16.7	16.7
3	Malaysia	66.7	66.7	7	Fiji	30.0	30.0	11	Papua New Guin.	16.7	16.7
4	Viet Nam	58.3	58.3	8	Japan	27.8	27.8	12	Solomon Islands	0.0	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Portugal	100.0	100.0	3	France	50.0	50.0	5	Italy	0.0	0.0
2	United Kingdom	66.7	66.7	3	Spain	50.0	50.0				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Israel	100.0	100.0	2	Iran	0.0	0.0	2	Turkey	0.0	0.0
2	Armenia	0.0	0.0	2	Oman	0.0	0.0				

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	100.0	100.0	2	India	43.8	43.8	3	Pakistan	0.0	0.0

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Ghana	100.0	100.0	6	Mauritius	75.0	75.0	10	Uganda	50.0	50.0
1	Kenya	100.0	100.0	6	Zimbabwe	75.0	75.0	14	Dem. Rep. Congo	33.3	33.3
1	Malawi	100.0	100.0	9	Madagascar	59.4	59.4	15	Cameroon	14.3	14.3
1	Nigeria	100.0	100.0	10	Côte d'Ivoire	50.0	50.0	16	Angola	0.0	0.0
5	Tanzania	88.9	88.9	10	Guinea	50.0	50.0	16	Djibouti	0.0	0.0
6	Ethiopia	75.0	75.0	10	South Africa	50.0	50.0	16	Mozambique	0.0	0.0

Marine Protected Areas (MPAEEZ)
Target value: 10 percent

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	10.0	100.0	51	Estonia	2.7	27.0	101	Djibouti	0.2	2.0
2	Austria	10.0	100.0	52	Lithuania	2.6	26.0	102	Japan	0.2	2.0
3	Azerbaijan	10.0	100.0	53	Russia	2.6	26.0	103	Madagascar	0.2	2.0
4	Belarus	10.0	100.0	54	Sweden	2.6	26.0	104	Morocco	0.2	2.0
5	Bolivia	10.0	100.0	55	Mozambique	2.0	20.0	105	Myanmar	0.2	2.0
6	Bosnia & Herz.	10.0	100.0	56	Panama	2.0	20.0	106	New Zealand	0.2	2.0
7	Botswana	10.0	100.0	57	Saudi Arabia	2.0	20.0	107	Peru	0.2	2.0
8	Burkina Faso	10.0	100.0	58	Ukraine	1.6	16.0	108	Sri Lanka	0.2	2.0
9	Burundi	10.0	100.0	59	Croatia	1.5	15.0	109	Yemen	0.2	2.0
10	Cameroon	10.0	100.0	60	Angola	1.4	14.0	110	Bangladesh	0.1	1.0
11	Central Afr. Rep.	10.0	100.0	61	Tanzania	1.4	14.0	111	Latvia	0.1	1.0
12	Chad	10.0	100.0	62	Thailand	1.4	14.0	112	Nicaragua	0.1	1.0
13	Dominican Rep.	10.0	100.0	63	Israel	1.3	13.0	113	Oman	0.1	1.0
14	Ecuador	10.0	100.0	64	Iran	1.2	12.0	114	Papua New Guin.	0.1	1.0
15	Ethiopia	10.0	100.0	65	Kenya	1.2	12.0	115	Portugal	0.1	1.0
16	Germany	10.0	100.0	66	Mexico	1.1	11.0	116	Togo	0.1	1.0
17	Hungary	10.0	100.0	67	Turkey	1.1	11.0	117	Tunisia	0.1	1.0
18	Jordan	10.0	100.0	68	Gabon	1.0	10.0	118	United Arab Em.	0.1	1.0
19	Kazakhstan	10.0	100.0	69	Indonesia	1.0	10.0	119	Viet Nam	0.1	1.0
20	Kyrgyzstan	10.0	100.0	70	Malaysia	1.0	10.0	120	Belgium	0.0	0.0
21	Laos	10.0	100.0	71	Brazil	0.9	9.0	121	Benin	0.0	0.0
22	Luxembourg	10.0	100.0	72	Cambodia	0.9	9.0	122	Bulgaria	0.0	0.0
23	Macedonia	10.0	100.0	73	Finland	0.9	9.0	123	Chile	0.0	0.0
24	Malawi	10.0	100.0	74	Italy	0.9	9.0	124	Côte d'Ivoire	0.0	0.0
25	Mali	10.0	100.0	75	Pakistan	0.9	9.0	125	Cyprus	0.0	0.0
26	Moldova	10.0	100.0	76	Congo	0.8	8.0	126	Czech Rep.	0.0	0.0
27	Mongolia	10.0	100.0	77	Honduras	0.7	7.0	127	Dem. Rep. Congo	0.0	0.0
28	Nepal	10.0	100.0	78	Poland	0.7	7.0	128	El Salvador	0.0	0.0
29	Niger	10.0	100.0	79	Albania	0.6	6.0	129	Eritrea	0.0	0.0
30	Paraguay	10.0	100.0	80	Costa Rica	0.6	6.0	130	Fiji	0.0	0.0
31	Rwanda	10.0	100.0	81	Cuba	0.6	6.0	131	France	0.0	0.0
32	Slovakia	10.0	100.0	82	Kuwait	0.6	6.0	132	Georgia	0.0	0.0
33	Swaziland	10.0	100.0	83	Philippines	0.6	6.0	133	Ghana	0.0	0.0
34	Switzerland	10.0	100.0	84	South Korea	0.6	6.0	134	Guinea	0.0	0.0
35	Tajikistan	10.0	100.0	85	Spain	0.6	6.0	135	Guinea-Bissau	0.0	0.0
36	Turkmenistan	10.0	100.0	86	Algeria	0.5	5.0	136	Guyana	0.0	0.0
37	Uganda	10.0	100.0	87	Canada	0.5	5.0	137	Haiti	0.0	0.0
38	Uzbekistan	10.0	100.0	88	Greece	0.5	5.0	138	Iraq	0.0	0.0
39	Zambia	10.0	100.0	89	India	0.5	5.0	139	Ireland	0.0	0.0
40	Zimbabwe	10.0	100.0	90	Jamaica	0.5	5.0	140	Lebanon	0.0	0.0
41	Australia	7.8	78.0	91	Slovenia	0.5	5.0	141	Mauritius	0.0	0.0
42	Colombia	7.5	75.0	92	Iceland	0.4	4.0	142	Namibia	0.0	0.0
43	Belize	7.1	71.0	93	Netherlands	0.4	4.0	143	Nigeria	0.0	0.0
44	Romania	7.1	71.0	94	Senegal	0.4	4.0	144	Sierra Leone	0.0	0.0
45	Norway	4.3	43.0	95	South Africa	0.4	4.0	145	Solomon Islands	0.0	0.0
46	Mauritania	4.0	40.0	96	Syria	0.4	4.0	146	Sudan	0.0	0.0
47	United States	3.8	38.0	97	China	0.3	3.0	147	Taiwan	0.0	0.0
48	Egypt	3.2	32.0	98	Guatemala	0.3	3.0	148	Trin. & Tob.	0.0	0.0
49	Venezuela	3.2	32.0	99	United Kingdom	0.3	3.0	149	Uruguay	0.0	0.0
50	Denmark	3.1	31.0	100	Argentina	0.2	2.0				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Bolivia	10.0	100.0	10	Mexico	1.1	11.0	19	Peru	0.2	2.0
1	Dominican Rep.	10.0	100.0	11	Brazil	0.9	9.0	20	Nicaragua	0.1	1.0
1	Ecuador	10.0	100.0	12	Honduras	0.7	7.0	21	Chile	0.0	0.0
1	Paraguay	10.0	100.0	13	Cuba	0.6	6.0	21	El Salvador	0.0	0.0
5	Colombia	7.5	75.0	14	Costa Rica	0.6	6.0	21	Guyana	0.0	0.0
6	Belize	7.1	71.0	15	Jamaica	0.5	5.0	21	Haiti	0.0	0.0
7	United States	3.8	38.0	16	Canada	0.5	5.0	21	Trin. & Tob.	0.0	0.0
8	Venezuela	3.2	32.0	17	Guatemala	0.3	3.0	21	Uruguay	0.0	0.0
9	Panama	2.0	20.0	18	Argentina	0.2	2.0				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Azerbaijan	10.0	100.0	1	Moldova	10.0	100.0	15	Ukraine	1.6	16.0
1	Belarus	10.0	100.0	1	Slovakia	10.0	100.0	16	Albania	0.6	6.0
1	Bosnia & Herz.	10.0	100.0	1	Tajikistan	10.0	100.0	17	Bulgaria	0.0	0.0
1	Hungary	10.0	100.0	1	Turkmenistan	10.0	100.0	17	Czech Rep.	0.0	0.0
1	Kazakhstan	10.0	100.0	1	Uzbekistan	10.0	100.0	17	Georgia	0.0	0.0
1	Kyrgyzstan	10.0	100.0	13	Romania	7.1	71.0				
1	Macedonia	10.0	100.0	14	Russia	2.6	26.0				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Laos	10.0	100.0	7	Cambodia	0.9	9.0	13	Myanmar	0.2	2.0
1	Mongolia	10.0	100.0	8	South Korea	0.6	6.0	14	Viet Nam	0.1	1.0
3	Australia	7.8	78.0	9	Philippines	0.6	6.0	15	Papua New Guin.	0.1	1.0
4	Thailand	1.4	14.0	10	China	0.3	3.0	16	Fiji	0.0	0.0
5	Malaysia	1.0	10.0	11	New Zealand	0.2	2.0	16	Solomon Islands	0.0	0.0
6	Indonesia	1.0	10.0	12	Japan	0.2	2.0	16	Taiwan	0.0	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	10.0	100.0	10	Croatia	1.5	15.0	19	United Kingdom	0.3	3.0
1	Germany	10.0	100.0	11	Finland	0.9	9.0	20	Latvia	0.1	1.0
1	Luxembourg	10.0	100.0	11	Italy	0.9	9.0	20	Portugal	0.1	1.0
1	Switzerland	10.0	100.0	13	Poland	0.7	7.0	22	Belgium	0.0	0.0
5	Norway	4.3	43.0	14	Spain	0.6	6.0	22	Cyprus	0.0	0.0
6	Denmark	3.1	31.0	15	Slovenia	0.5	5.0	22	France	0.0	0.0
7	Estonia	2.7	27.0	16	Greece	0.5	5.0	22	Ireland	0.0	0.0
8	Sweden	2.6	26.0	17	Iceland	0.4	4.0				
9	Lithuania	2.6	26.0	17	Netherlands	0.4	4.0				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	10.0	100.0	7	Turkey	1.1	11.0	13	Oman	0.1	1.0
1	Jordan	10.0	100.0	8	Kuwait	0.6	6.0	13	Tunisia	0.1	1.0
3	Egypt	3.2	32.0	9	Algeria	0.5	5.0	13	United Arab Em.	0.1	1.0
4	Saudi Arabia	2.0	20.0	10	Syria	0.4	4.0	16	Iraq	0.0	0.0
5	Israel	1.3	13.0	11	Morocco	0.2	2.0	16	Lebanon	0.0	0.0
6	Iran	1.2	12.0	11	Yemen	0.2	2.0	16	Sudan	0.0	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Nepal	10.0	100.0	3	India	0.5	5.0	5	Bangladesh	0.1	1.0

2	Pakistan	0.9	9.0	4	Sri Lanka	0.2	2.0

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Botswana	10.0	100.0	1	Zambia	10.0	100.0	27	Togo	0.1	1.0
1	Burkina Faso	10.0	100.0	1	Zimbabwe	10.0	100.0	28	Benin	0.0	0.0
1	Burundi	10.0	100.0	16	Mauritania	4.0	40.0	28	Côte d'Ivoire	0.0	0.0
1	Cameroon	10.0	100.0	17	Mozambique	2.0	20.0	28	Dem. Rep. Congo	0.0	0.0
1	Central Afr. Rep.	10.0	100.0	18	Angola	1.4	14.0	28	Eritrea	0.0	0.0
1	Chad	10.0	100.0	18	Tanzania	1.4	14.0	28	Ghana	0.0	0.0
1	Ethiopia	10.0	100.0	20	Kenya	1.2	12.0	28	Guinea	0.0	0.0
1	Malawi	10.0	100.0	21	Gabon	1.0	10.0	28	Guinea-Bissau	0.0	0.0
1	Mali	10.0	100.0	22	Congo	0.8	8.0	28	Mauritius	0.0	0.0
1	Niger	10.0	100.0	23	Senegal	0.4	4.0	28	Namibia	0.0	0.0
1	Rwanda	10.0	100.0	23	South Africa	0.4	4.0	28	Nigeria	0.0	0.0
1	Swaziland	10.0	100.0	25	Djibouti	0.2	2.0	28	Sierra Leone	0.0	0.0
1	Uganda	10.0	100.0	25	Madagascar	0.2	2.0				

Trawling Intensity (EEZTD)
Target value: 0 percent

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Mauritius	0.0	99.1	39	Mexico	0.2	79.2	77	Namibia	0.5	54.8
2	Colombia	0.0	99.0	40	Sudan	0.2	78.6	78	Egypt	0.5	53.6
3	Costa Rica	0.0	98.2	41	Eritrea	0.2	78.2	79	Philippines	0.5	52.5
4	Romania	0.0	98.1	42	Guatemala	0.2	77.8	80	Nigeria	0.5	52.2
5	Estonia	0.0	96.8	43	Peru	0.2	77.1	81	Lithuania	0.5	50.3
6	Fiji	0.0	95.9	44	Ukraine	0.2	77.0	82	Norway	0.5	48.9
7	Papua New Guin.	0.0	95.7	45	Gabon	0.2	76.9	83	Iceland	0.5	46.5
8	Cyprus	0.0	95.3	46	Sweden	0.2	76.8	84	Indonesia	0.6	40.8
9	Solomon Islands	0.0	95.2	47	El Salvador	0.2	76.6	85	Ireland	0.6	39.0
10	Portugal	0.0	95.1	48	Japan	0.2	75.3	86	Uruguay	0.6	35.2
11	Ecuador	0.1	94.8	49	France	0.2	75.2	87	Turkey	0.7	34.4
12	Australia	0.1	93.5	50	United States	0.2	75.1	88	Albania	0.7	25.1
13	Jamaica	0.1	92.3	51	Italy	0.2	75.1	89	Djibouti	0.8	23.9
14	Nicaragua	0.1	91.9	52	Angola	0.3	74.5	90	Thailand	0.8	20.3
15	Kenya	0.1	91.3	53	Senegal	0.3	73.9	91	South Korea	0.8	19.9
16	Honduras	0.1	91.3	54	Sierra Leone	0.3	73.7	92	Taiwan	0.8	19.2
17	Lebanon	0.1	91.0	55	Haiti	0.3	72.9	93	Argentina	0.8	17.5
18	Finland	0.1	90.3	56	New Zealand	0.3	72.7	94	Iran	0.9	14.7
19	Cuba	0.1	88.6	57	Mozambique	0.3	72.3	95	United Kingdom	0.9	14.1
20	Bulgaria	0.1	87.7	58	Madagascar	0.3	72.1	96	China	0.9	13.1
21	Chile	0.1	87.2	59	India	0.3	71.9	97	Cameroon	0.9	9.4
22	Dem. Rep. Congo	0.1	86.9	60	Syria	0.3	71.4	98	Viet Nam	0.9	6.5
23	Georgia	0.1	85.2	61	South Africa	0.3	70.5	99	Tunisia	0.9	6.3
24	Latvia	0.2	85.0	62	Oman	0.3	69.0	100	Denmark	0.9	5.9
25	Trin. & Tob.	0.2	84.4	63	Venezuela	0.3	68.4	101	Malaysia	0.9	5.7
26	Russia	0.2	83.9	64	Mauritania	0.3	68.1	102	Germany	1.0	2.1
27	Belize	0.2	83.7	65	Pakistan	0.3	67.8	103	Jordan	1.0	1.3
28	Israel	0.2	83.3	66	Canada	0.3	67.5	104	Bangladesh	1.0	0.0
29	Algeria	0.2	83.3	67	Yemen	0.3	66.7	105	Belgium	1.0	0.0
30	Tanzania	0.2	83.3	68	Togo	0.3	65.8	106	Cambodia	1.0	0.0
31	Dominican Rep.	0.2	83.0	69	Congo	0.4	64.6	107	Guyana	1.0	0.0
32	Benin	0.2	83.0	70	Guinea-Bissau	0.4	64.0	108	Iraq	1.0	0.0
33	Panama	0.2	82.9	71	Croatia	0.4	61.0	109	Kuwait	1.0	0.0
34	Côte d'Ivoire	0.2	82.4	72	Greece	0.4	59.9	110	Myanmar	1.0	0.0
35	Ghana	0.2	81.1	73	Poland	0.4	58.9	111	Netherlands	1.0	0.0
36	Sri Lanka	0.2	79.9	74	Guinea	0.4	56.1	112	Slovenia	1.0	0.0
37	Spain	0.2	79.6	75	Saudi Arabia	0.4	55.5	113	United Arab Em.	1.0	0.0
38	Brazil	0.2	79.4	76	Morocco	0.4	55.1				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Colombia	0.01	99.0	9	Trin. & Tob.	0.16	84.4	17	Peru	0.23	77.1
2	Costa Rica	0.02	98.2	10	Belize	0.16	83.7	18	El Salvador	0.23	76.6
3	Ecuador	0.05	94.8	11	Dominican Rep.	0.17	83.0	19	United States	0.25	75.1
4	Jamaica	0.08	92.3	12	Panama	0.17	82.9	20	Haiti	0.27	72.9
5	Nicaragua	0.08	91.9	13	Panama	0.17	82.9	21	Venezuela	0.32	68.4
6	Honduras	0.09	91.3	14	Brazil	0.21	79.4	22	Canada	0.32	67.5
7	Cuba	0.11	88.6	15	Mexico	0.21	79.2	23	Uruguay	0.65	35.2
8	Chile	0.13	87.2	16	Guatemala	0.22	77.8	24	Argentina	0.82	17.5

Central Asia and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Romania	0.02	98.1	3	Georgia	0.15	85.2	5	Ukraine	0.23	77.0
2	Bulgaria	0.12	87.7	4	Russia	0.16	83.9	6	Albania	0.75	25.1

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Fiji	0.04	95.9	7	Philippines	0.47	52.5	13	Viet Nam	0.94	6.5
2	Papua New Guin.	0.04	95.7	8	Indonesia	0.59	40.8	14	Malaysia	0.94	5.7
3	Solomon Islands	0.05	95.2	9	Thailand	0.80	20.3	15	Cambodia	1.00	0.0
4	Australia	0.07	93.5	10	South Korea	0.80	19.9	16	Myanmar	1.00	0.0
5	Japan	0.25	75.3	11	Taiwan	0.81	19.2				
6	New Zealand	0.27	72.7	12	China	0.87	13.1				

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Estonia	0.03	96.8	9	Italy	0.25	75.1	17	United Kingdom	0.86	14.1
2	Cyprus	0.05	95.3	10	Croatia	0.39	61.0	18	Denmark	0.94	5.9
3	Portugal	0.05	95.1	11	Greece	0.40	59.9	19	Germany	0.98	2.1
4	Finland	0.10	90.3	12	Poland	0.41	58.9	20	Belgium	1.00	0.0
5	Latvia	0.15	85.0	13	Lithuania	0.50	50.3	21	Netherlands	1.00	0.0
6	Spain	0.20	79.6	14	Norway	0.51	48.9	22	Slovenia	1.00	0.0
7	Sweden	0.23	76.8	15	Iceland	0.53	46.5				
8	France	0.25	75.2	16	Ireland	0.61	39.0				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Lebanon	0.09	91.0	7	Yemen	0.33	66.7	13	Tunisia	0.94	6.3
2	Israel	0.17	83.3	8	Saudi Arabia	0.45	55.5	14	Jordan	0.99	1.3
3	Algeria	0.17	83.3	9	Morocco	0.45	55.1	15	Iraq	1.00	0.0
4	Sudan	0.21	78.6	10	Egypt	0.46	53.6	16	Kuwait	1.00	0.0
5	Syria	0.29	71.4	11	Turkey	0.66	34.4	17	United Arab Em.	1.00	0.0
6	Oman	0.31	69.0	12	Iran	0.85	14.7				

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	0.20	79.9	3	Pakistan	0.32	67.8	4	Bangladesh	1.00	0.0
2	India	0.28	71.9								

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Mauritius	0.01	99.1	9	Gabon	0.23	76.9	17	Togo	0.34	65.8
2	Kenya	0.09	91.3	10	Angola	0.25	74.5	18	Congo	0.35	64.6
3	Dem. Rep. Congo	0.13	86.9	11	Senegal	0.26	73.9	19	Guinea-Bissau	0.36	64.0

4	Tanzania	0.17	83.3	12	Sierra Leone	0.26	73.7	20	Guinea	0.44	56.1
5	Benin	0.17	83.0	13	Mozambique	0.28	72.3	21	Namibia	0.45	54.8
6	Côte d'Ivoire	0.18	82.4	14	Madagascar	0.28	72.1	22	Nigeria	0.48	52.2
7	Ghana	0.19	81.1	15	South Africa	0.30	70.5	23	Djibouti	0.76	23.9
8	Eritrea	0.22	78.2	16	Mauritania	0.32	68.1	24	Cameroon	0.91	9.4

Marine Trophic Index (MTI)
Target value: no decline (≥0.0)

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	0.0000	100.0	34	Portugal	0.0015	100.0	67	Congo	-0.0032	83.6
2	Algeria	0.0015	100.0	35	Saudi Arabia	0.0054	100.0	68	India	-0.0034	82.6
3	Angola	0.0016	100.0	36	Sierra Leone	0.0024	100.0	69	Japan	-0.0036	81.6
4	Argentina	0.0044	100.0	37	Slovenia	0.0001	100.0	70	Venezuela	-0.0037	81.0
5	Australia	0.0014	100.0	38	South Africa	0.0137	100.0	71	United Kingdom	-0.0038	80.5
6	Benin	0.0033	100.0	39	Taiwan	0.0043	100.0	72	Sweden	-0.0039	80.0
7	Brazil	0.0073	100.0	40	Thailand	0.0193	100.0	73	Ukraine	-0.0042	78.4
8	Costa Rica	0.0085	100.0	41	Togo	0.0010	100.0	74	Lithuania	-0.0043	77.9
9	Côte d'Ivoire	0.0062	100.0	42	Tunisia	0.0026	100.0	75	Kenya	-0.0045	76.9
10	Croatia	0.0058	100.0	43	United Arab Em.	0.0034	100.0	76	China	-0.0049	74.9
11	Egypt	0.0071	100.0	44	Uruguay	0.0038	100.0	77	Tanzania	-0.0049	74.9
12	El Salvador	0.0068	100.0	45	Viet Nam	0.0000	100.0	78	South Korea	-0.0052	73.3
13	Eritrea	0.0074	100.0	46	Yemen	0.0009	100.0	79	Georgia	-0.0058	70.2
14	Estonia	0.0014	100.0	47	Greece	-0.0001	99.5	80	United States	-0.0059	69.7
15	Fiji	0.0052	100.0	48	Finland	-0.0003	98.5	81	Cuba	-0.0061	68.7
16	Gabon	0.0142	100.0	49	Ireland	-0.0003	98.5	82	Poland	-0.0066	66.1
17	Germany	0.0018	100.0	50	Trin. & Tob.	-0.0003	98.5	83	Latvia	-0.0068	65.1
18	Ghana	0.0040	100.0	51	Jordan	-0.0005	97.4	84	Lebanon	-0.0068	65.1
19	Guatemala	0.0011	100.0	52	Cameroon	-0.0009	95.4	85	Turkey	-0.0073	62.5
20	Guinea	0.0012	100.0	53	Belgium	-0.0010	94.9	86	Kuwait	-0.0082	57.9
21	Guinea-Bissau	0.0122	100.0	54	Netherlands	-0.0011	94.4	87	Peru	-0.0095	51.3
22	Guyana	0.0010	100.0	55	Cyprus	-0.0012	93.8	88	Chile	-0.0096	50.7
23	Honduras	0.0011	100.0	56	France	-0.0014	92.8	89	Nigeria	-0.0096	50.7
24	Indonesia	0.0007	100.0	57	Iran	-0.0014	92.8	90	Romania	-0.0101	48.2
25	Malaysia	0.0012	100.0	58	Norway	-0.0014	92.8	91	Iceland	-0.0103	47.1
26	Mauritius	0.0128	100.0	59	Senegal	-0.0014	92.8	92	Dominican Rep.	-0.0104	46.6
27	Mexico	0.0024	100.0	60	Pakistan	-0.0021	89.2	93	Belize	-0.0115	41.0
28	Namibia	0.0217	100.0	61	Spain	-0.0024	87.7	94	Mozambique	-0.0120	38.4
29	New Zealand	0.0253	100.0	62	Morocco	-0.0025	87.2	95	Canada	-0.0129	33.8
30	Nicaragua	0.0124	100.0	63	Italy	-0.0029	85.1	96	Bulgaria	-0.0162	16.9
31	Oman	0.0024	100.0	64	Philippines	-0.0029	85.1	97	Dem. Rep. Congo	-0.0184	5.6
32	Panama	0.0029	100.0	65	Mauritania	-0.0030	84.6	98	Denmark	-0.0191	1.8
33	Papua New Guin.	0.0014	100.0	66	Sri Lanka	-0.0030	84.6	99	Ecuador	-0.0237	0.0

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Argentina	0.00	100.0	8	Nicaragua	0.01	100.0	15	Cuba	-0.01	68.7
2	Brazil	0.01	100.0	9	Panama	0.00	100.0	16	Peru	-0.01	51.3
3	Costa Rica	0.01	100.0	10	El Salvador	0.01	100.0	17	Chile	-0.01	50.7
4	Guatemala	0.00	100.0	11	Uruguay	0.00	100.0	18	Dominican Rep.	-0.01	46.6
5	Guyana	0.00	100.0	12	Trin. & Tob.	0.00	98.5	19	Belize	-0.01	41.0
6	Honduras	0.00	100.0	13	Venezuela	0.00	81.0	20	Canada	-0.01	33.8
7	Mexico	0.00	100.0	14	United States	-0.01	69.7	21	Ecuador	-0.02	0.0

Central Asia and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	0.00	100.0	3	Georgia	-0.01	70.2	5	Bulgaria	-0.02	16.9
2	Ukraine	0.00	78.4	4	Romania	-0.01	48.2				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	0.00	100.0	6	Papua New Guin.	0.00	100.0	11	Japan	0.00	81.6
2	Fiji	0.01	100.0	7	Thailand	0.02	100.0	12	China	0.00	74.9
3	Indonesia	0.00	100.0	8	Taiwan	0.00	100.0	13	South Korea	-0.01	73.3
4	Malaysia	0.00	100.0	9	Viet Nam	0.00	100.0				
5	New Zealand	0.03	100.0	10	Philippines	0.00	85.1				

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Croatia	0.01	100.0	9	Belgium	0.00	94.9	17	Sweden	0.00	80.0
2	Estonia	0.00	100.0	10	Netherlands	0.00	94.4	18	Lithuania	0.00	77.9
3	Germany	0.00	100.0	11	Cyprus	0.00	93.8	19	Poland	-0.01	66.1
4	Portugal	0.00	100.0	12	France	0.00	92.8	20	Latvia	-0.01	65.1
5	Slovenia	0.00	100.0	13	Norway	0.00	92.8	21	Iceland	-0.01	47.1
6	Greece	0.00	99.5	14	Spain	0.00	87.7	22	Denmark	-0.02	1.8
7	Finland	0.00	98.5	15	Italy	0.00	85.1				
8	Ireland	0.00	98.5	16	United Kingdom	0.00	80.5				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Algeria	0.00	100.0	6	United Arab Em.	0.00	100.0	11	Lebanon	-0.01	65.1
2	Egypt	0.01	100.0	7	Yemen	0.00	100.0	12	Turkey	-0.01	62.5
3	Oman	0.00	100.0	8	Jordan	0.00	97.4	13	Kuwait	-0.01	57.9
4	Saudi Arabia	0.01	100.0	9	Iran	0.00	92.8				
5	Tunisia	0.00	100.0	10	Morocco	0.00	87.2				

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Pakistan	0.00	89.2	2	Sri Lanka	0.00	84.6	3	India	0.00	82.6

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Angola	0.00	100.0	9	Mauritius	0.01	100.0	17	Congo	0.00	83.6
2	Benin	0.00	100.0	10	Namibia	0.02	100.0	18	Kenya	0.00	76.9
3	Côte d'Ivoire	0.01	100.0	11	Sierra Leone	0.00	100.0	19	Tanzania	0.00	74.9
4	Eritrea	0.01	100.0	12	Togo	0.00	100.0	20	Nigeria	-0.01	50.7
5	Gabon	0.01	100.0	13	South Africa	0.01	100.0	21	Mozambique	-0.01	38.4
6	Ghana	0.00	100.0	14	Cameroon	0.00	95.4	22	Dem. Rep. Congo	-0.02	5.6
7	Guinea	0.00	100.0	15	Senegal	0.00	92.8				

8	Guinea-Bissau	0.01	100.0	16	Mauritania	0.00	84.6

Irrigation Stress (IRRSTR)
Target value: 0 percent

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	0.0	100.0	49	Nicaragua	0.0	100.0	97	Nigeria	5.0	94.1
2	Austria	0.0	100.0	50	Norway	0.0	100.0	98	Bulgaria	5.1	94.0
3	Bangladesh	0.0	100.0	51	Panama	0.0	100.0	99	Tajikistan	5.9	93.1
4	Belarus	0.0	100.0	52	Paraguay	0.0	100.0	100	Romania	7.2	91.6
5	Belgium	0.0	100.0	53	Poland	0.0	100.0	101	Iran	9.0	89.4
6	Belize	0.0	100.0	54	Portugal	0.0	100.0	102	Syria	9.1	89.3
7	Benin	0.0	100.0	55	Rwanda	0.0	100.0	103	Kyrgyzstan	10.8	87.3
8	Bolivia	0.0	100.0	56	Sierra Leone	0.0	100.0	104	Chad	11.2	86.9
9	Bosnia & Herz.	0.0	100.0	57	Slovakia	0.0	100.0	105	Dominican Rep.	11.5	86.5
10	Burundi	0.0	100.0	58	Slovenia	0.0	100.0	106	Ukraine	13.2	84.4
11	Cambodia	0.0	100.0	59	South Korea	0.0	100.0	107	Turkmenistan	14.0	83.5
12	Cameroon	0.0	100.0	60	Swaziland	0.0	100.0	108	Azerbaijan	14.6	82.9
13	Central Afr. Rep.	0.0	100.0	61	Sweden	0.0	100.0	109	Kazakhstan	14.6	82.9
14	Congo	0.0	100.0	62	Switzerland	0.0	100.0	110	Spain	16.0	81.2
15	Costa Rica	0.0	100.0	63	Taiwan	0.0	100.0	111	China	16.1	81.0
16	Croatia	0.0	100.0	64	Thailand	0.0	100.0	112	India	16.7	80.3
17	Cuba	0.0	100.0	65	Togo	0.0	100.0	113	Mali	17.0	80.0
18	Czech Rep.	0.0	100.0	66	Trin. & Tob.	0.0	100.0	114	Mexico	18.4	78.4
19	Dem. Rep. Congo	0.0	100.0	67	Uganda	0.0	100.0	115	Mongolia	19.0	77.7
20	Denmark	0.0	100.0	68	United Kingdom	0.0	100.0	116	Israel	19.1	77.5
21	El Salvador	0.0	100.0	69	Uruguay	0.0	100.0	117	United States	19.1	77.5
22	Eritrea	0.0	100.0	70	Viet Nam	0.0	100.0	118	Tanzania	19.2	77.4
23	Estonia	0.0	100.0	71	Zambia	0.0	100.0	119	Tunisia	19.7	76.8
24	Finland	0.0	100.0	72	Côte d'Ivoire	0.2	99.8	120	Uzbekistan	21.1	75.2
25	France	0.0	100.0	73	Malawi	0.3	99.6	121	Venezuela	21.3	75.0
26	Gabon	0.0	100.0	74	Brazil	0.6	99.3	122	Georgia	21.5	74.7
27	Germany	0.0	100.0	75	Lebanon	0.9	98.9	123	Argentina	21.6	74.6
28	Ghana	0.0	100.0	76	Philippines	1.0	98.9	124	Iraq	25.4	70.2
29	Guatemala	0.0	100.0	77	Chile	1.0	98.8	125	Peru	27.6	67.5
30	Guinea	0.0	100.0	78	Senegal	1.2	98.6	126	Oman	30.1	64.6
31	Guinea-Bissau	0.0	100.0	79	Canada	1.4	98.4	127	Botswana	31.6	62.9
32	Guyana	0.0	100.0	80	Zimbabwe	1.4	98.3	128	Algeria	31.7	62.7
33	Haiti	0.0	100.0	81	Mozambique	1.5	98.3	129	South Africa	37.4	56.0
34	Honduras	0.0	100.0	82	Greece	1.5	98.2	130	Sudan	37.9	55.4
35	Hungary	0.0	100.0	83	Madagascar	1.9	97.8	131	United Arab Em.	41.0	51.8
36	Indonesia	0.0	100.0	84	Angola	2.2	97.5	132	Australia	41.9	50.7
37	Ireland	0.0	100.0	85	Armenia	2.5	97.0	133	Namibia	43.6	48.7
38	Italy	0.0	100.0	86	Moldova	2.6	97.0	134	Djibouti	46.0	46.0
39	Japan	0.0	100.0	87	Turkey	2.7	96.8	135	Jordan	52.7	38.0
40	Laos	0.0	100.0	88	Colombia	2.7	96.8	136	Morocco	54.2	36.3
41	Latvia	0.0	100.0	89	Russia	3.2	96.3	137	Niger	55.7	34.5
42	Lithuania	0.0	100.0	90	Myanmar	3.3	96.1	138	Mauritania	57.4	32.5
43	Luxembourg	0.0	100.0	91	Burkina Faso	3.4	96.0	139	Egypt	57.5	32.4
44	Macedonia	0.0	100.0	92	Kenya	4.0	95.3	140	Kuwait	85.0	0.0
45	Malaysia	0.0	100.0	93	Sri Lanka	4.2	95.1	141	Saudi Arabia	98.3	0.0
46	Nepal	0.0	100.0	94	Ecuador	4.7	94.5	142	Yemen	95.5	0.0
47	Netherlands	0.0	100.0	95	Pakistan	4.7	94.4				
48	New Zealand	0.0	100.0	96	Ethiopia	4.8	94.3				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belize	0.0	100.0	1	Nicaragua	0.0	100.0	19	Ecuador	4.7	94.5
1	Bolivia	0.0	100.0	1	Panama	0.0	100.0	20	Dominican Rep.	11.5	86.5
1	Costa Rica	0.0	100.0	1	Paraguay	0.0	100.0	21	Mexico	18.4	78.4
1	Cuba	0.0	100.0	1	Trin. & Tob.	0.0	100.0	22	United States	19.1	77.5
1	El Salvador	0.0	100.0	1	Uruguay	0.0	100.0	23	Venezuela	21.3	75.0
1	Guatemala	0.0	100.0	15	Brazil	0.6	99.3	24	Argentina	21.6	74.6
1	Guyana	0.0	100.0	16	Chile	1.0	98.8	25	Peru	27.6	67.5
1	Haiti	0.0	100.0	17	Canada	1.4	98.4				
1	Honduras	0.0	100.0	18	Colombia	2.7	96.8				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	0.0	100.0	8	Moldova	2.6	97.0	15	Turkmenistan	14.0	83.5
1	Belarus	0.0	100.0	9	Russia	3.2	96.3	16	Azerbaijan	14.6	82.9
1	Bosnia & Herz.	0.0	100.0	10	Bulgaria	5.1	94.0	17	Kazakhstan	14.6	82.9
1	Czech Rep.	0.0	100.0	11	Tajikistan	5.9	93.1	18	Uzbekistan	21.1	75.2
1	Hungary	0.0	100.0	12	Romania	7.2	91.6	19	Georgia	21.5	74.7
1	Macedonia	0.0	100.0	13	Kyrgyzstan	10.8	87.3				
1	Slovakia	0.0	100.0	14	Ukraine	13.2	84.4				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Cambodia	0.0	100.0	1	New Zealand	0.0	100.0	11	Philippines	1.0	98.9
1	Indonesia	0.0	100.0	1	South Korea	0.0	100.0	12	Myanmar	3.3	96.1
1	Japan	0.0	100.0	1	Taiwan	0.0	100.0	13	China	16.1	81.0
1	Laos	0.0	100.0	1	Thailand	0.0	100.0	14	Mongolia	19.0	77.7
1	Malaysia	0.0	100.0	1	Viet Nam	0.0	100.0	15	Australia	41.9	50.7

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	0.0	100.0	1	Ireland	0.0	100.0	1	Portugal	0.0	100.0
1	Belgium	0.0	100.0	1	Italy	0.0	100.0	1	Slovenia	0.0	100.0
1	Croatia	0.0	100.0	1	Latvia	0.0	100.0	1	Sweden	0.0	100.0
1	Denmark	0.0	100.0	1	Lithuania	0.0	100.0	1	Switzerland	0.0	100.0
1	Estonia	0.0	100.0	1	Luxembourg	0.0	100.0	1	United Kingdom	0.0	100.0
1	Finland	0.0	100.0	1	Netherlands	0.0	100.0	22	Greece	1.5	98.2
1	France	0.0	100.0	1	Norway	0.0	100.0	23	Spain	16.0	81.2
1	Germany	0.0	100.0	1	Poland	0.0	100.0				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Lebanon	0.9	98.9	7	Tunisia	19.7	76.8	13	Jordan	52.7	38.0
2	Armenia	2.5	97.0	8	Iraq	25.4	70.2	14	Morocco	54.2	36.3
3	Turkey	2.7	96.8	9	Oman	30.1	64.6	15	Egypt	57.5	32.4
4	Iran	9.0	89.4	10	Algeria	31.7	62.7	16	Kuwait	85.0	0.0
5	Syria	9.1	89.3	11	Sudan	37.9	55.4	16	Saudi Arabia	98.3	0.0
6	Israel	19.1	77.5	12	United Arab Em.	41.0	51.8	16	Yemen	95.5	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Bangladesh	0.0	100.0	3	Sri Lanka	4.2	95.1	5	India	16.7	80.3
1	Nepal	0.0	100.0	4	Pakistan	4.7	94.4				

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Benin	0.0	100.0	1	Swaziland	0.0	100.0	27	Ethiopia	4.8	94.3
1	Burundi	0.0	100.0	1	Togo	0.0	100.0	28	Nigeria	5.0	94.1
1	Cameroon	0.0	100.0	1	Uganda	0.0	100.0	29	Chad	11.2	86.9
1	Central Afr. Rep.	0.0	100.0	1	Zambia	0.0	100.0	30	Mali	17.0	80.0
1	Congo	0.0	100.0	18	Côte d'Ivoire	0.2	99.8	31	Tanzania	19.2	77.4
1	Dem. Rep. Congo	0.0	100.0	19	Malawi	0.3	99.6	32	Botswana	31.6	62.9
1	Eritrea	0.0	100.0	20	Senegal	1.2	98.6	33	South Africa	37.4	56.0
1	Gabon	0.0	100.0	21	Zimbabwe	1.4	98.3	34	Namibia	43.6	48.7
1	Ghana	0.0	100.0	22	Mozambique	1.5	98.3	35	Djibouti	46.0	46.0
1	Guinea	0.0	100.0	23	Madagascar	1.9	97.8	36	Niger	55.7	34.5
1	Guinea-Bissau	0.0	100.0	24	Angola	2.2	97.5	37	Mauritania	57.4	32.5
1	Rwanda	0.0	100.0	25	Burkina Faso	3.4	96.0				
1	Sierra Leone	0.0	100.0	26	Kenya	4.0	95.3				

Agricultural Subsidies (AGSUB)
Target value: 0 NRA; for imputed values, 0% of agricultural GDP

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	0.0	100.0	51	Mali	0.0	100.0	101	Thailand	4.3	90.8
2	Algeria	0.0	100.0	52	Mauritania	0.0	100.0	102	Poland	4.8	89.8
3	Angola	0.0	100.0	53	Mauritius	0.0	100.0	103	Uruguay	4.8	89.7
4	Argentina	0.0	100.0	54	Moldova	0.0	100.0	104	Russia	5.8	87.5
5	Armenia	0.0	100.0	55	Mongolia	0.0	100.0	105	Chile	6.3	86.5
6	Azerbaijan	0.0	100.0	56	Morocco	0.0	100.0	106	Ecuador	11.0	76.4
7	Belarus	0.0	100.0	57	Mozambique	0.0	100.0	107	Tunisia	11.3	75.7
8	Belize	0.0	100.0	58	Myanmar	0.0	100.0	108	India	13.1	71.9
9	Benin	0.0	100.0	59	Namibia	0.0	100.0	109	United States	16.0	65.7
10	Bolivia	0.0	100.0	60	Nepal	0.0	100.0	110	Mexico	17.0	63.6
11	Bosnia & Herz.	0.0	100.0	61	Nicaragua	0.0	100.0	111	Viet Nam	17.0	63.6
12	Botswana	0.0	100.0	62	Niger	0.0	100.0	112	Czech Rep.	18.0	61.4
13	Burkina Faso	0.0	100.0	63	Nigeria	0.0	100.0	113	Slovakia	20.2	56.7
14	Burundi	0.0	100.0	64	Oman	0.0	100.0	114	Canada	21.0	55.0
15	Cambodia	0.0	100.0	65	Pakistan	0.0	100.0	115	Lithuania	21.1	54.8
16	Cameroon	0.0	100.0	66	Panama	0.0	100.0	116	Hungary	21.1	54.8
17	Central Afr. Rep.	0.0	100.0	67	Papua New Guin.	0.0	100.0	117	Philippines	21.3	54.4
18	Chad	0.0	100.0	68	Paraguay	0.0	100.0	118	Colombia	22.0	52.8
19	Congo	0.0	100.0	69	Rwanda	0.0	100.0	119	Latvia	23.6	49.5
20	Côte d'Ivoire	0.0	100.0	70	Saudi Arabia	0.0	100.0	120	Indonesia	26.7	42.7
21	Croatia	0.0	100.0	71	Senegal	0.0	100.0	121	Turkey	27.0	42.1
22	Cuba	0.0	100.0	72	Sierra Leone	0.0	100.0	122	Peru	27.9	40.2
23	Dem. Rep. Congo	0.0	100.0	73	Solomon Islands	0.0	100.0	123	Portugal	35.9	23.0
24	Djibouti	0.0	100.0	74	South Africa	0.0	100.0	124	Austria	36.0	22.8
25	Dominican Rep.	0.0	100.0	75	Sri Lanka	0.0	100.0	125	Belgium	36.0	22.8
26	Egypt	0.0	100.0	76	Sudan	0.0	100.0	126	Cyprus	36.0	22.8
27	El Salvador	0.0	100.0	77	Swaziland	0.0	100.0	127	Denmark	36.0	22.8
28	Eritrea	0.0	100.0	78	Syria	0.0	100.0	128	Finland	36.0	22.8
29	Estonia	0.0	100.0	79	Tajikistan	0.0	100.0	129	France	36.0	22.8
30	Ethiopia	0.0	100.0	80	Tanzania	0.0	100.0	130	Germany	36.0	22.8
31	Fiji	0.0	100.0	81	Togo	0.0	100.0	131	Greece	36.0	22.8
32	Gabon	0.0	100.0	82	Trin. & Tob.	0.0	100.0	132	Ireland	36.0	22.8
33	Georgia	0.0	100.0	83	Turkmenistan	0.0	100.0	133	Italy	36.0	22.8
34	Ghana	0.0	100.0	84	Ukraine	0.0	100.0	134	Luxembourg	36.0	22.8
35	Guatemala	0.0	100.0	85	United Arab Em.	0.0	100.0	135	Netherlands	36.0	22.8
36	Guinea	0.0	100.0	86	Uzbekistan	0.0	100.0	136	Spain	36.0	22.8
37	Guinea-Bissau	0.0	100.0	87	Yemen	0.0	100.0	137	Sweden	36.0	22.8
38	Guyana	0.0	100.0	88	Zambia	0.0	100.0	138	United Kingdom	36.0	22.8
39	Haiti	0.0	100.0	89	Zimbabwe	0.0	100.0	139	Romania	36.1	22.7
40	Honduras	0.0	100.0	90	Australia	0.0	99.9	140	Taiwan	40.2	13.9
41	Iran	0.0	100.0	91	Madagascar	0.7	98.6	141	Slovenia	42.0	10.0
42	Iraq	0.0	100.0	92	China	0.9	98.1	142	Israel	46.4	0.5
43	Jamaica	0.0	100.0	93	Uganda	0.9	98.1	143	Jordan	46.4	0.5
44	Kazakhstan	0.0	100.0	94	Malaysia	1.9	96.0	144	Venezuela	46.4	0.5
45	Kuwait	0.0	100.0	95	Brazil	2.0	95.8	145	Iceland	69.0	0.0
46	Kyrgyzstan	0.0	100.0	96	Costa Rica	2.4	94.8	146	Norway	68.0	0.0
47	Laos	0.0	100.0	97	New Zealand	3.0	93.6	147	Switzerland	68.0	0.0
48	Lebanon	0.0	100.0	98	Bulgaria	3.0	93.5	148	South Korea	63.0	0.0
49	Macedonia	0.0	100.0	99	Kenya	3.6	92.3	149	Japan	56.0	0.0
50	Malawi	0.0	100.0	100	Bangladesh	3.9	91.7				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Argentina	0.0	100.0	10	Honduras	0.0	100.0	19	Chile	6.3	86.5
2	Belize	0.0	100.0	11	Jamaica	0.0	100.0	20	Ecuador	11.0	76.4
3	Bolivia	0.0	100.0	12	Nicaragua	0.0	100.0	21	United States	16.0	65.7
4	Cuba	0.0	100.0	13	Panama	0.0	100.0	22	Mexico	17.0	63.6
5	Dominican Rep.	0.0	100.0	14	Paraguay	0.0	100.0	23	Canada	21.0	55.0
6	El Salvador	0.0	100.0	15	Trin. & Tob.	0.0	100.0	24	Colombia	22.0	52.8
7	Guatemala	0.0	100.0	16	Brazil	2.0	95.8	25	Peru	27.9	40.2
8	Guyana	0.0	100.0	17	Costa Rica	2.4	94.8	26	Venezuela	46.4	0.51
9	Haiti	0.0	100.0	18	Uruguay	4.8	89.7				

Central Asia and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	0.0	100.0	8	Macedonia	0.0	100.0	15	Russia	5.8	87.5
2	Azerbaijan	0.0	100.0	9	Moldova	0.0	100.0	16	Czech Rep.	18.0	61.4
3	Belarus	0.0	100.0	10	Tajikistan	0.0	100.0	17	Slovakia	20.2	56.7
4	Bosnia & Herz.	0.0	100.0	11	Turkmenistan	0.0	100.0	18	Hungary	21.1	54.8
5	Georgia	0.0	100.0	12	Ukraine	0.0	100.0	19	Romania	36.1	22.7
6	Kazakhstan	0.0	100.0	13	Uzbekistan	0.0	100.0				
7	Kyrgyzstan	0.0	100.0	14	Bulgaria	3.0	93.5				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Cambodia	0.0	100.0	7	Solomon Islands	0.0	100.0	13	Viet Nam	17.0	63.6
2	Fiji	0.0	100.0	8	Australia	0.0	99.9	14	Philippines	21.3	54.4
3	Laos	0.0	100.0	9	China	0.9	98.1	15	Indonesia	26.7	42.7
4	Mongolia	0.0	100.0	10	Malaysia	1.9	96.0	16	Taiwan	40.2	13.9
5	Myanmar	0.0	100.0	11	New Zealand	3.0	93.6	17	South Korea	63.0	0.0
6	Papua New Guin.	0.0	100.0	12	Thailand	4.3	90.8	18	Japan	56.0	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Croatia	0.0	100.0	10	Denmark	36.0	22.8	19	Spain	36.0	22.8
2	Estonia	0.0	100.0	11	Finland	36.0	22.8	20	Sweden	36.0	22.8
3	Poland	4.8	89.8	12	France	36.0	22.8	21	United Kingdom	36.0	22.8
4	Lithuania	21.1	54.8	13	Germany	36.0	22.8	22	Slovenia	42.0	10.0
5	Latvia	23.6	49.5	14	Greece	36.0	22.8	23	Iceland	69.0	0.0
6	Portugal	35.9	23.0	15	Ireland	36.0	22.8	24	Norway	68.0	0.0
7	Austria	36.0	22.8	16	Italy	36.0	22.8	25	Switzerland	68.0	0.0
8	Belgium	36.0	22.8	17	Luxembourg	36.0	22.8				
9	Cyprus	36.0	22.8	18	Netherlands	36.0	22.8				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Algeria	0.0	100.0	7	Lebanon	0.0	100.0	13	United Arab Em.	0.0	100.0
2	Armenia	0.0	100.0	8	Morocco	0.0	100.0	14	Yemen	0.0	100.0
3	Egypt	0.0	100.0	9	Oman	0.0	100.0	15	Tunisia	11.3	75.7
4	Iran	0.0	100.0	10	Saudi Arabia	0.0	100.0	16	Turkey	27.0	42.1
5	Iraq	0.0	100.0	11	Sudan	0.0	100.0	17	Israel	46.4	0.5
6	Kuwait	0.0	100.0	12	Syria	0.0	100.0	18	Jordan	46.4	0.5

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Nepal	0.0	100.0	3	Sri Lanka	0.0	100.0	5	India	13.1	71.9

2	Pakistan	0.0	100.0	4	Bangladesh	3.9	91.7

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Angola	0.0	100.0	14	Ethiopia	0.0	100.0	27	Rwanda	0.0	100.0
2	Benin	0.0	100.0	15	Gabon	0.0	100.0	28	Senegal	0.0	100.0
3	Botswana	0.0	100.0	16	Ghana	0.0	100.0	29	Sierra Leone	0.0	100.0
4	Burkina Faso	0.0	100.0	17	Guinea	0.0	100.0	30	South Africa	0.0	100.0
5	Burundi	0.0	100.0	18	Guinea-Bissau	0.0	100.0	31	Swaziland	0.0	100.0
6	Cameroon	0.0	100.0	19	Malawi	0.0	100.0	32	Tanzania	0.0	100.0
7	Central Afr. Rep.	0.0	100.0	20	Mali	0.0	100.0	33	Togo	0.0	100.0
8	Chad	0.0	100.0	21	Mauritania	0.0	100.0	34	Zambia	0.0	100.0
9	Congo	0.0	100.0	22	Mauritius	0.0	100.0	35	Zimbabwe	0.0	100.0
10	Côte d'Ivoire	0.0	100.0	23	Mozambique	0.0	100.0	36	Madagascar	0.7	98.6
11	Dem. Rep. Congo	0.0	100.0	24	Namibia	0.0	100.0	37	Uganda	0.9	98.1
12	Djibouti	0.0	100.0	25	Niger	0.0	100.0	38	Kenya	3.6	92.3
13	Eritrea	0.0	100.0	26	Nigeria	0.0	100.0				

Cropland Intensity (AGINT)
Target value: 0 percent

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Angola	0.0	100.0	50	Malawi	1.6	97.5	99	Lebanon	14.5	77.0
2	Belize	0.0	100.0	51	Japan	1.7	97.4	100	Finland	15.3	75.8
3	Bolivia	0.0	100.0	52	New Zealand	1.7	97.4	101	Sweden	15.8	75.0
4	Botswana	0.0	100.0	53	Malaysia	1.8	97.1	102	Trin. & Tob.	16.0	74.7
5	Central Afr. Rep.	0.0	100.0	54	Bosnia & Herz.	2.0	96.9	103	United States	16.8	73.4
6	Chad	0.0	100.0	55	Brazil	2.0	96.8	104	Germany	17.2	72.8
7	Congo	0.0	100.0	56	Turkmenistan	2.1	96.7	105	Yemen	17.3	72.6
8	Cyprus	0.0	100.0	57	Slovenia	2.3	96.3	106	Latvia	17.8	71.9
9	Djibouti	0.0	100.0	58	Senegal	2.4	96.2	107	Bulgaria	18.4	71.0
10	Eritrea	0.0	100.0	59	Ireland	2.9	95.4	108	Croatia	19.1	69.9
11	Guinea	0.0	100.0	60	Georgia	3.0	95.3	109	Portugal	19.5	69.2
12	Guinea-Bissau	0.0	100.0	61	Paraguay	3.1	95.0	110	United Kingdom	20.5	67.7
13	Kuwait	0.0	100.0	62	Armenia	3.5	94.5	111	Uzbekistan	21.0	66.8
14	Luxembourg	0.0	100.0	63	Estonia	3.6	94.3	112	Iraq	21.6	65.9
15	Macedonia	0.0	100.0	64	Costa Rica	4.1	93.6	113	Italy	21.9	65.3
16	Mali	0.0	100.0	65	South Korea	4.2	93.3	114	Austria	23.3	63.2
17	Mauritania	0.0	100.0	66	Switzerland	4.3	93.2	115	Jordan	23.7	62.6
18	Namibia	0.0	100.0	67	Oman	4.4	93.1	116	Saudi Arabia	24.6	61.2
19	Panama	0.0	100.0	68	South Africa	4.8	92.4	117	Canada	25.6	59.6
20	Papua New Guin.	0.0	100.0	69	Nicaragua	4.9	92.2	118	Russia	27.2	57.0
21	Sierra Leone	0.0	100.0	70	Burundi	5.1	92.0	119	Nigeria	27.2	57.0
22	Swaziland	0.0	100.0	71	Azerbaijan	5.6	91.1	120	Haiti	28.0	55.7
23	Taiwan	0.0	100.0	72	Guatemala	5.9	90.7	121	Czech Rep.	28.6	54.7
24	United Arab Em.	0.0	100.0	73	Albania	6.2	90.2	122	France	29.0	54.2
25	Uruguay	0.0	100.0	74	Philippines	6.9	89.1	123	Israel	29.4	53.6
26	Kyrgyzstan	0.0	100.0	75	Cambodia	7.4	88.3	124	Slovakia	30.4	51.9
27	Colombia	0.0	99.9	76	Benin	7.7	87.9	125	Spain	31.6	50.1
28	Mozambique	0.1	99.9	77	Nepal	7.9	87.5	126	El Salvador	31.7	49.9
29	Tanzania	0.1	99.9	78	Belgium	8.2	87.1	127	Uganda	31.9	49.5
30	Zambia	0.1	99.9	79	Belarus	8.3	86.8	128	Togo	33.5	47.0
31	Dem. Rep. Congo	0.1	99.9	80	Norway	8.7	86.2	129	Cuba	34.2	46.0
32	Peru	0.1	99.8	81	Kazakhstan	8.7	86.2	130	Pakistan	34.3	45.8
33	Mongolia	0.2	99.8	82	Netherlands	9.4	85.1	131	Lithuania	35.5	43.9
34	Madagascar	0.2	99.7	83	Greece	9.4	85.1	132	Poland	37.5	40.7
35	Myanmar	0.2	99.6	84	Mexico	9.7	84.7	133	Niger	40.4	36.1
36	Laos	0.3	99.6	85	Jamaica	10.2	83.9	134	Hungary	40.7	35.7
37	Zimbabwe	0.3	99.6	86	Ghana	10.6	83.3	135	Romania	42.3	33.1
38	Chile	0.4	99.4	87	China	10.7	83.2	136	Egypt	45.7	27.8
39	Burkina Faso	0.4	99.3	88	Indonesia	10.9	82.8	137	India	50.6	20.1
40	Guyana	0.5	99.2	89	Thailand	11.7	81.5	138	Algeria	55.9	11.6
41	Tajikistan	0.7	98.9	90	Viet Nam	11.8	81.4	139	Syria	58.2	8.0
42	Gabon	0.8	98.7	91	Cameroon	12.8	79.8	140	Morocco	58.7	7.2
43	Venezuela	0.9	98.6	92	Australia	12.9	79.6	141	Ukraine	62.3	1.5
44	Ethiopia	1.0	98.4	93	Sri Lanka	13.0	79.5	142	Denmark	63.4	0.0
45	Ecuador	1.0	98.4	94	Iran	13.2	79.1	143	Bangladesh	68.0	0.0
46	Côte d'Ivoire	1.1	98.3	95	Rwanda	13.4	78.8	144	Tunisia	77.0	0.0
47	Sudan	1.1	98.2	96	Argentina	13.7	78.4	145	Moldova	80.9	0.0
48	Honduras	1.3	97.9	97	Dominican Rep.	13.8	78.2				
49	Kenya	1.3	97.9	98	Turkey	14.2	77.6				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Belize	0.0	100.0	10	Ecuador	1.0	98.4	19	Argentina	13.7	78.4
2	Bolivia	0.0	100.0	11	Honduras	1.3	97.9	20	Dominican Rep.	13.8	78.2
3	Panama	0.0	100.0	12	Brazil	2.0	96.8	21	Trin. & Tob.	16.0	74.7
4	Uruguay	0.0	100.0	13	Paraguay	3.1	95.0	22	United States	16.8	73.4
5	Colombia	0.0	99.9	14	Costa Rica	4.1	93.6	23	Canada	25.6	59.6
6	Peru	0.1	99.8	15	Nicaragua	4.9	92.2	24	Haiti	28.0	55.7
7	Chile	0.4	99.4	16	Guatemala	5.9	90.7	25	El Salvador	31.7	49.9
8	Guyana	0.5	99.2	17	Mexico	9.7	84.7	26	Cuba	34.2	46.0
9	Venezuela	0.9	98.6	18	Jamaica	10.2	83.9				

Central Asia and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Macedonia	0.0	100.0	8	Albania	6.2	90.2	15	Slovakia	30.4	51.9
2	Kyrgyzstan	0.0	100.0	9	Belarus	8.3	86.8	16	Hungary	40.7	35.7
3	Tajikistan	0.7	98.9	10	Kazakhstan	8.7	86.2	17	Romania	42.3	33.1
4	Bosnia & Herz.	2.0	96.9	11	Bulgaria	18.4	71.0	18	Ukraine	62.3	1.5
5	Turkmenistan	2.1	96.7	12	Uzbekistan	21.0	66.8	19	Moldova	80.9	0.0
6	Georgia	3.0	95.3	13	Russia	27.2	57.0				
7	Azerbaijan	5.6	91.1	14	Czech Rep.	28.6	54.7				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Papua New Guin.	0.0	100.0	7	New Zealand	1.7	97.4	13	Indonesia	10.9	82.8
2	Taiwan	0.0	100.0	8	Malaysia	1.8	97.1	14	Thailand	11.7	81.5
3	Mongolia	0.2	99.8	9	South Korea	4.2	93.3	15	Viet Nam	11.8	81.4
4	Myanmar	0.2	99.6	10	Philippines	6.9	89.1	16	Australia	12.9	79.6
5	Laos	0.3	99.6	11	Cambodia	7.4	88.3				
6	Japan	1.7	97.4	12	China	10.7	83.2				

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Cyprus	0.0	100.0	9	Netherlands	9.4	85.1	17	United Kingdom	20.5	67.7
2	Luxembourg	0.0	100.0	10	Greece	9.4	85.1	18	Italy	21.9	65.3
3	Slovenia	2.3	96.3	11	Finland	15.3	75.8	19	Austria	23.3	63.2
4	Ireland	2.9	95.4	12	Sweden	15.8	75.0	20	France	29.0	54.2
5	Estonia	3.6	94.3	13	Germany	17.2	72.8	21	Spain	31.6	50.1
6	Switzerland	4.3	93.2	14	Latvia	17.8	71.9	22	Lithuania	35.5	43.9
7	Belgium	8.2	87.1	15	Croatia	19.1	69.9	23	Poland	37.5	40.7
8	Norway	8.7	86.2	16	Portugal	19.5	69.2	24	Denmark	63.4	0.0

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Kuwait	0.0	100.0	7	Turkey	14.2	77.6	13	Israel	29.4	53.6
2	United Arab Em.	0.0	100.0	8	Lebanon	14.5	77.0	14	Egypt	45.7	27.8
3	Sudan	1.1	98.2	9	Yemen	17.3	72.6	15	Algeria	55.9	11.6
4	Armenia	3.5	94.5	10	Iraq	21.6	65.9	16	Syria	58.2	8.0
5	Oman	4.4	93.1	11	Jordan	23.7	62.6	17	Morocco	58.7	7.2
6	Iran	13.2	79.1	12	Saudi Arabia	24.6	61.2	18	Tunisia	77.0	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Nepal	7.9	87.5	3	Pakistan	34.3	45.8	5	Bangladesh	68.0	0.0
2	Sri Lanka	13.0	79.5	4	India	50.6	20.1				

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Angola	0.0	100.0	14	Swaziland	0.0	100.0	27	Senegal	2.4	96.2
2	Botswana	0.0	100.0	15	Mozambique	0.1	99.9	28	South Africa	4.8	92.4
3	Central Afr. Rep.	0.0	100.0	16	Tanzania	0.1	99.9	29	Burundi	5.1	92.0
4	Chad	0.0	100.0	17	Zambia	0.1	99.9	30	Benin	7.7	87.9
5	Congo	0.0	100.0	18	Dem. Rep. Congo	0.1	99.9	31	Ghana	10.6	83.3
6	Djibouti	0.0	100.0	19	Madagascar	0.2	99.7	32	Cameroon	12.8	79.8
7	Eritrea	0.0	100.0	20	Zimbabwe	0.3	99.6	33	Rwanda	13.4	78.8
8	Guinea	0.0	100.0	21	Burkina Faso	0.4	99.3	34	Nigeria	27.2	57.0
9	Guinea-Bissau	0.0	100.0	22	Gabon	0.8	98.7	35	Uganda	31.9	49.5
10	Mali	0.0	100.0	23	Ethiopia	1.0	98.4	36	Togo	33.5	47.0
11	Mauritania	0.0	100.0	24	Côte d'Ivoire	1.1	98.3	37	Niger	40.4	36.1
12	Namibia	0.0	100.0	25	Kenya	1.3	97.9				
13	Sierra Leone	0.0	100.0	26	Malawi	1.6	97.5				

Burnt Land Area (BURNED)
Target value: 0

Rank	Country	Value	PT
1	Taiwan	0.0	100.0
2	Philippines	0.0	99.9
3	Guyana	0.0	99.9
4	Malaysia	0.0	99.9
5	Panama	0.0	99.9
6	Egypt	0.0	99.9
7	Papua New Guin.	0.0	99.9
8	Niger	0.0	99.8
9	Jordan	0.0	99.8
10	Mauritania	0.0	99.7
11	Laos	0.0	99.7
12	Indonesia	0.0	99.6
13	Sri Lanka	0.1	99.6
14	Denmark	0.1	99.6
15	Gabon	0.1	99.5
16	Ireland	0.1	99.5
17	Belize	0.1	99.5
18	Algeria	0.1	99.5
19	Bangladesh	0.1	99.3
20	Turkmenistan	0.1	99.2
21	Norway	0.1	99.2
22	Tunisia	0.1	99.1
23	Costa Rica	0.1	99.0
24	Uruguay	0.1	99.0
25	Sweden	0.1	98.9
26	El Salvador	0.2	98.7
27	Honduras	0.2	98.7
28	Nicaragua	0.2	98.6
29	Ecuador	0.2	98.6
30	Belgium	0.2	98.6
31	Haiti	0.2	98.5
32	United Kingdom	0.2	98.4
33	Finland	0.2	98.3
34	Iraq	0.2	98.3
35	Thailand	0.2	98.3
36	Lithuania	0.2	98.2
37	Dominican Rep.	0.3	98.2
38	Switzerland	0.3	98.1
39	Latvia	0.3	98.0
40	Viet Nam	0.3	97.9
41	Estonia	0.3	97.7
42	Iceland	0.3	97.6
43	Saudi Arabia	0.4	97.2
44	Pakistan	0.4	97.2
45	France	0.4	97.1
46	Germany	0.5	96.7
47	New Zealand	0.5	96.5
48	Israel	0.5	96.3
49	Japan	0.5	96.2
50	United Arab Em.	0.5	96.1
51	Austria	0.5	96.0
52	Poland	0.6	95.9
53	Mali	0.6	95.9
54	Oman	0.6	95.8
55	Congo	0.6	95.7
56	Cyprus	0.6	95.7
57	Cuba	0.6	95.5
58	Iran	0.6	95.4
59	Myanmar	0.6	95.3
60	Guatemala	0.7	95.1
61	Tajikistan	0.7	94.8
62	Namibia	0.8	94.3
63	Eritrea	0.8	94.2
64	Botswana	0.8	94.0
65	Brazil	0.8	93.9
66	Uzbekistan	0.8	93.9
67	Syria	0.8	93.8
68	Morocco	0.9	93.7
69	Lebanon	0.9	93.3
70	Czech Rep.	0.9	93.3
71	Rwanda	0.9	93.2
72	Spain	0.9	93.0
73	India	1.0	92.9
74	Netherlands	1.0	92.9
75	Luxembourg	1.0	92.4
76	Nigeria	1.1	92.2
77	Venezuela	1.1	91.6
78	Colombia	1.1	91.6
79	Slovenia	1.2	91.4
80	Yemen	1.2	90.9
81	Djibouti	1.4	89.5
82	Canada	1.5	89.0
83	Kyrgyzstan	1.5	88.8
84	Belarus	1.6	88.2
85	Cambodia	1.7	87.8
86	Burundi	1.7	87.7
87	Turkey	1.7	87.5
88	Mongolia	1.7	87.4
89	Chile	1.8	86.9
90	United States	1.8	86.6
91	Paraguay	1.9	86.4
92	China	1.9	86.0
93	Italy	2.0	85.7
94	Peru	2.0	85.1
95	Sierra Leone	2.1	84.9
96	Slovakia	2.2	83.9
97	Nepal	2.2	83.7
98	Portugal	2.4	82.5
99	Togo	2.4	82.5
100	Kenya	2.5	81.4
101	Greece	2.6	80.5
102	Guinea-Bissau	2.7	80.2
103	Bosnia & Herz.	2.7	79.9
104	Mexico	2.8	79.7
105	Burkina Faso	2.8	79.6
106	Armenia	2.8	79.5
107	Albania	2.9	78.9
108	Croatia	2.9	78.5
109	Georgia	2.9	78.5
110	Azerbaijan	2.9	78.4
111	Bolivia	3.2	76.3
112	Russia	3.4	74.6
113	Malawi	3.8	72.3
114	Madagascar	3.9	71.6
115	South Korea	4.0	70.8
116	Côte d'Ivoire	4.3	68.2
117	Zimbabwe	4.5	67.2
118	Macedonia	4.5	67.0
119	Senegal	4.5	67.0
120	Chad	4.5	66.9
121	Australia	5.0	63.3
122	South Africa	5.3	61.4
123	Swaziland	5.3	61.0
124	Cameroon	5.4	60.5
125	Bulgaria	5.5	59.2
126	Guinea	5.6	58.6
127	Benin	5.7	57.9
128	Kazakhstan	6.0	55.9
129	Argentina	6.0	55.7
130	Romania	6.2	54.4
131	Ethiopia	6.6	51.5
132	Ghana	7.1	47.7
133	Dem. Rep. Congo	8.1	40.3
134	Hungary	8.2	39.4
135	Tanzania	9.0	33.5
136	Sudan	10.2	24.9
137	Uganda	10.9	20.0
138	Ukraine	11.2	17.8
139	Mozambique	11.4	16.4
140	Angola	15.3	0.0
141	Central Afr. Rep.	21.4	0.0
142	Moldova	13.7	0.0
143	Zambia	14.3	0.0

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Guyana	0.0	99.9	9	Ecuador	0.2	98.6	17	Canada	1.5	89.0
1	Panama	0.0	99.9	10	Haiti	0.2	98.5	18	Chile	1.8	86.9
3	Belize	0.1	99.5	11	Dominican Rep.	0.3	98.2	19	United States	1.8	86.6
4	Costa Rica	0.1	99.0	12	Cuba	0.6	95.5	20	Paraguay	1.9	86.4
5	Uruguay	0.1	99.0	13	Guatemala	0.7	95.1	21	Peru	2.0	85.1
6	El Salvador	0.2	98.7	14	Brazil	0.8	93.9	22	Mexico	2.8	79.7
7	Honduras	0.2	98.7	15	Colombia	1.1	91.6	23	Bolivia	3.2	76.3
8	Nicaragua	0.2	98.6	15	Venezuela	1.1	91.6	24	Argentina	6.0	55.7

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Turkmenistan	0.1	99.2	8	Bosnia & Herz.	2.7	79.9	15	Kazakhstan	6.0	55.9
2	Tajikistan	0.7	94.8	9	Albania	2.9	78.9	16	Romania	6.2	54.4
3	Uzbekistan	0.8	93.9	10	Georgia	2.9	78.5	17	Hungary	8.2	39.4
4	Czech Rep.	0.9	93.3	11	Azerbaijan	2.9	78.4	18	Ukraine	11.2	17.8
5	Kyrgyzstan	1.5	88.8	12	Russia	3.4	74.6	19	Moldova	13.7	0.0
6	Belarus	1.6	88.2	13	Macedonia	4.5	67.0				
7	Slovakia	2.2	83.9	14	Bulgaria	5.5	59.2				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Taiwan	0.0	100.0	7	Thailand	0.2	98.3	13	Mongolia	1.7	87.4
2	Malaysia	0.0	99.9	8	Viet Nam	0.3	97.9	14	China	1.9	86.0
2	Papua New Guin.	0.0	99.9	9	New Zealand	0.5	96.5	15	South Korea	4.0	70.8
2	Philippines	0.0	99.9	10	Japan	0.5	96.2	16	Australia	5.0	63.3
5	Laos	0.0	99.7	11	Myanmar	0.6	95.3				
6	Indonesia	0.0	99.6	12	Cambodia	1.7	87.8				

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Denmark	0.1	99.6	10	Latvia	0.3	98.0	19	Netherlands	1.0	92.9
2	Ireland	0.1	99.5	11	Estonia	0.3	97.7	20	Luxembourg	1.0	92.4
3	Norway	0.1	99.2	12	Iceland	0.3	97.6	21	Slovenia	1.2	91.4
4	Sweden	0.1	98.9	13	France	0.4	97.1	22	Italy	2.0	85.7
5	Belgium	0.2	98.6	14	Germany	0.5	96.7	23	Portugal	2.4	82.5
6	United Kingdom	0.2	98.4	15	Austria	0.5	96.0	24	Greece	2.6	80.5
7	Finland	0.2	98.3	16	Poland	0.6	95.9	25	Croatia	2.9	78.5
8	Lithuania	0.2	98.2	17	Cyprus	0.6	95.7				
9	Switzerland	0.3	98.1	18	Spain	0.9	93.0				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Egypt	0.0	99.9	7	Israel	0.5	96.3	13	Lebanon	0.9	93.3
2	Jordan	0.0	99.8	8	United Arab Em.	0.5	96.1	14	Yemen	1.2	90.9
3	Algeria	0.1	99.5	9	Oman	0.6	95.8	15	Turkey	1.7	87.5
4	Tunisia	0.1	99.1	10	Iran	0.6	95.4	16	Armenia	2.8	79.5
5	Iraq	0.2	98.3	11	Syria	0.8	93.8	17	Sudan	10.2	24.9
6	Saudi Arabia	0.4	97.2	12	Morocco	0.9	93.7				

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	0.1	99.6	3	Pakistan	0.4	97.2	5	Nepal	2.2	83.7
2	Bangladesh	0.1	99.3	4	India	1.0	92.9				

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Niger	0.0	99.8	14	Togo	2.4	82.5	27	Guinea	5.6	58.6
2	Mauritania	0.0	99.7	15	Kenya	2.5	81.4	28	Benin	5.7	57.9
3	Gabon	0.1	99.5	16	Guinea-Bissau	2.7	80.2	29	Ethiopia	6.6	51.5
4	Mali	0.6	95.9	17	Burkina Faso	2.8	79.6	30	Ghana	7.1	47.7
5	Congo	0.6	95.7	18	Malawi	3.8	72.3	31	Dem. Rep. Congo	8.1	40.3
6	Namibia	0.8	94.3	19	Madagascar	3.9	71.6	32	Tanzania	9.0	33.5
7	Eritrea	0.8	94.2	20	Côte d'Ivoire	4.3	68.2	33	Uganda	10.9	20.0
8	Botswana	0.8	94.0	21	Zimbabwe	4.5	67.2	34	Mozambique	11.4	16.4
9	Rwanda	0.9	93.2	22	Senegal	4.5	67.0	35	Angola	15.3	0.0
10	Nigeria	1.1	92.2	23	Chad	4.5	66.9	35	Central Afr. Rep.	21.4	0.0
11	Djibouti	1.4	89.5	24	South Africa	5.3	61.4	35	Zambia	14.3	0.0
12	Burundi	1.7	87.7	25	Swaziland	5.3	61.0				
13	Sierra Leone	2.1	84.9	26	Cameroon	5.4	60.5				

Pesticide Regulation (PEST)
Target value: 22 points

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	22.0	100.0	51	Iceland	20.0	90.9	101	Bolivia	4.0	18.2
2	Australia	22.0	100.0	52	Iran	20.0	90.9	102	Kenya	4.0	18.2
3	Austria	22.0	100.0	53	Jamaica	20.0	90.9	103	Mali	4.0	18.2
4	Bulgaria	22.0	100.0	54	Lebanon	20.0	90.9	104	Rwanda	4.0	18.2
5	Burundi	22.0	100.0	55	Malaysia	20.0	90.9	105	Senegal	4.0	18.2
6	Canada	22.0	100.0	56	Saudi Arabia	20.0	90.9	106	Tanzania	4.0	18.2
7	Chile	22.0	100.0	57	Thailand	20.0	90.9	107	Dem. Rep. Congo	3.0	13.6
8	Congo	22.0	100.0	58	Viet Nam	20.0	90.9	108	Eritrea	3.0	13.6
9	Czech Rep.	22.0	100.0	59	Yemen	20.0	90.9	109	Gabon	3.0	13.6
10	Denmark	22.0	100.0	60	Colombia	19.0	86.4	110	Georgia	3.0	13.6
11	Finland	22.0	100.0	61	Ecuador	19.0	86.4	111	India	3.0	13.6
12	Germany	22.0	100.0	62	Egypt	19.0	86.4	112	Mauritania	3.0	13.6
13	Japan	22.0	100.0	63	Indonesia	19.0	86.4	113	Namibia	3.0	13.6
14	Jordan	22.0	100.0	64	Laos	19.0	86.4	114	Nigeria	3.0	13.6
15	Lithuania	22.0	100.0	65	Morocco	19.0	86.4	115	Oman	3.0	13.6
16	New Zealand	22.0	100.0	66	Slovenia	19.0	86.4	116	Tajikistan	3.0	13.6
17	Norway	22.0	100.0	67	Trin. & Tob.	19.0	86.4	117	Tunisia	3.0	13.6
18	Romania	22.0	100.0	68	Turkey	19.0	86.4	118	United Arab Em.	3.0	13.6
19	Slovakia	22.0	100.0	69	United States	19.0	86.4	119	Venezuela	3.0	13.6
20	Sweden	22.0	100.0	70	Kyrgyzstan	18.0	81.8	120	Albania	2.0	9.1
21	Switzerland	22.0	100.0	71	Mexico	18.0	81.8	121	Angola	2.0	9.1
22	Belgium	21.0	95.5	72	Myanmar	18.0	81.8	122	Belarus	2.0	9.1
23	Benin	21.0	95.5	73	Philippines	18.0	81.8	123	Belize	2.0	9.1
24	Cyprus	21.0	95.5	74	Sri Lanka	18.0	81.8	124	Bosnia & Herz.	2.0	9.1
25	Dominican Rep.	21.0	95.5	75	Côte d'Ivoire	17.0	77.3	125	Cambodia	2.0	9.1
26	Estonia	21.0	95.5	76	El Salvador	17.0	77.3	126	Cameroon	2.0	9.1
27	France	21.0	95.5	77	Ghana	17.0	77.3	127	Guyana	2.0	9.1
28	Greece	21.0	95.5	78	Mongolia	17.0	77.3	128	Pakistan	2.0	9.1
29	Hungary	21.0	95.5	79	Costa Rica	16.0	72.7	129	Azerbaijan	1.0	4.5
30	Ireland	21.0	95.5	80	Djibouti	16.0	72.7	130	Botswana	1.0	4.5
31	Italy	21.0	95.5	81	Madagascar	16.0	72.7	131	Guinea-Bissau	1.0	4.5
32	Kuwait	21.0	95.5	82	Togo	16.0	72.7	132	Honduras	1.0	4.5
33	Latvia	21.0	95.5	83	Ukraine	16.0	72.7	133	Israel	1.0	4.5
34	Luxembourg	21.0	95.5	84	Algeria	15.0	68.2	134	Mozambique	1.0	4.5
35	Mauritius	21.0	95.5	85	South Korea	15.0	68.2	135	Papua New Guin.	1.0	4.5
36	Moldova	21.0	95.5	86	Burkina Faso	14.0	63.6	136	Sierra Leone	1.0	4.5
37	Netherlands	21.0	95.5	87	Cuba	14.0	63.6	137	Solomon Islands	1.0	4.5
38	Panama	21.0	95.5	88	South Africa	14.0	63.6	138	Swaziland	1.0	4.5
39	Paraguay	21.0	95.5	89	Central Afr. Rep.	13.0	59.1	139	Uganda	1.0	4.5
40	Peru	21.0	95.5	90	China	13.0	59.1	140	Bangladesh	0.0	0.0
41	Poland	21.0	95.5	91	Nepal	13.0	59.1	141	Guatemala	0.0	0.0
42	Portugal	21.0	95.5	92	Niger	13.0	59.1	142	Haiti	0.0	0.0
43	Spain	21.0	95.5	93	Chad	12.0	54.5	143	Iraq	0.0	0.0
44	Sudan	21.0	95.5	94	Uruguay	12.0	54.5	144	Malawi	0.0	0.0
45	Syria	21.0	95.5	95	Guinea	11.0	50.0	145	Russia	0.0	0.0
46	United Kingdom	21.0	95.5	96	Kazakhstan	10.0	45.5	146	Taiwan	0.0	0.0
47	Argentina	20.0	90.9	97	Macedonia	10.0	45.5	147	Turkmenistan	0.0	0.0
48	Brazil	20.0	90.9	98	Zambia	9.0	40.9	148	Uzbekistan	0.0	0.0
49	Croatia	20.0	90.9	99	Ethiopia	5.0	22.7	149	Zimbabwe	0.0	0.0
50	Fiji	20.0	90.9	100	Nicaragua	5.0	22.7				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Canada	22.0	100.0	10	Colombia	19.0	86.4	19	Nicaragua	5.0	22.7
1	Chile	22.0	100.0	10	Ecuador	19.0	86.4	20	Bolivia	4.0	18.2
3	Dominican Rep.	21.0	95.5	10	Trin. & Tob.	19.0	86.4	21	Venezuela	3.0	13.6
3	Panama	21.0	95.5	10	United States	19.0	86.4	22	Belize	2.0	9.1
3	Paraguay	21.0	95.5	14	Mexico	18.0	81.8	23	Guyana	2.0	9.1
3	Peru	21.0	95.5	15	El Salvador	17.0	77.3	24	Honduras	1.0	4.5
7	Argentina	20.0	90.9	16	Costa Rica	16.0	72.7	25	Guatemala	0.0	0.0
7	Brazil	20.0	90.9	17	Cuba	14.0	63.6	25	Haiti	0.0	0.0
7	Jamaica	20.0	90.9	18	Uruguay	12.0	54.5				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Bulgaria	22.0	100.0	8	Ukraine	16.0	72.7	13	Bosnia and Herz.	2.0	9.1
1	Czech Rep.	22.0	100.0	9	Kazakhstan	10.0	45.5	16	Azerbaijan	1.0	4.5
1	Romania	22.0	100.0	9	Macedonia	10.0	45.5	17	Russia	0.0	0.0
1	Slovakia	22.0	100.0	11	Georgia	3.0	13.6	17	Turkmenistan	0.0	0.0
5	Hungary	21.0	95.5	11	Tajikistan	3.0	13.6	17	Uzbekistan	0.0	0.0
5	Moldova	21.0	95.5	13	Albania	2.0	9.1				
7	Kyrgyzstan	18.0	81.8	13	Belarus	2.0	9.1				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Australia	22.0	100.0	4	Viet Nam	20.0	90.9	13	South Korea	15.0	68.2
1	Japan	22.0	100.0	8	Laos	19.0	86.4	14	China	13.0	59.1
1	New Zealand	22.0	100.0	8	Indonesia	19.0	86.4	15	Cambodia	2.0	9.1
4	Fiji	20.0	90.9	10	Myanmar	18.0	81.8	16	Papua New Guin.	1.0	4.5
4	Malaysia	20.0	90.9	10	Philippines	18.0	81.8	16	Solomon Islands	1.0	4.5
4	Thailand	20.0	90.9	12	Mongolia	17.0	77.3	18	Taiwan	0.0	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Austria	22.0	100.0	9	Cyprus	21.0	95.5	9	Poland	21.0	95.5
1	Denmark	22.0	100.0	9	Estonia	21.0	95.5	9	Portugal	21.0	95.5
1	Finland	22.0	100.0	9	France	21.0	95.5	9	Spain	21.0	95.5
1	Germany	22.0	100.0	9	Greece	21.0	95.5	9	United Kingdom	21.0	95.5
1	Lithuania	22.0	100.0	9	Ireland	21.0	95.5	23	Croatia	20.0	90.9
1	Norway	22.0	100.0	9	Italy	21.0	95.5	23	Iceland	20.0	90.9
1	Sweden	22.0	100.0	9	Latvia	21.0	95.5	25	Slovenia	19.0	86.4
1	Switzerland	22.0	100.0	9	Luxembourg	21.0	95.5				
9	Belgium	21.0	95.5	9	Netherlands	21.0	95.5				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	22.0	100.0	6	Lebanon	20.0	90.9	13	Algeria	15.0	68.2
1	Georgia	22.0	100.0	6	Saudi Arabia	20.0	90.9	14	Oman	3.0	13.6
3	Kuwait	21.0	95.5	6	Yemen	20.0	90.9	14	Tunisia	3.0	13.6
3	Sudan	21.0	95.5	10	Egypt	19.0	86.4	14	United Arab Em.	3.0	13.6
3	Syria	21.0	95.5	10	Morocco	19.0	86.4	17	Israel	1.0	4.5
6	Iran	20.0	90.9	10	Turkey	19.0	86.4	18	Iraq	0.0	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	18.0	81.8	3	India	3.0	13.6	5	Bangladesh	0.0	0.0

2	Nepal	13.0	59.1	4	Pakistan	2.0	9.1

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Burundi	22.0	100.0	14	Chad	12.0	54.5	23	Namibia	3.0	13.6
1	Congo	22.0	100.0	15	Guinea	11.0	50.0	23	Nigeria	3.0	13.6
3	Benin	21.0	95.5	16	Zambia	9.0	40.9	29	Angola	2.0	9.1
3	Mauritius	21.0	95.5	17	Ethiopia	5.0	22.7	29	Cameroon	2.0	9.1
5	Côte d'Ivoire	17.0	77.3	18	Kenya	4.0	18.2	31	Botswana	1.0	4.5
5	Ghana	17.0	77.3	18	Mali	4.0	18.2	31	Guinea-Bissau	1.0	4.5
7	Djibouti	16.0	72.7	18	Rwanda	4.0	18.2	31	Mozambique	1.0	4.5
7	Madagascar	16.0	72.7	18	Senegal	4.0	18.2	31	Sierra Leone	1.0	4.5
7	Togo	16.0	72.7	18	Tanzania	4.0	18.2	31	Swaziland	1.0	4.5
10	Burkina Faso	14.0	63.6	23	Dem. Rep. Congo	3.0	13.6	31	Uganda	1.0	4.5
10	South Africa	14.0	63.6	23	Eritrea	3.0	13.6	37	Malawi	0.0	0.0
12	Central Afr. Rep.	13.0	59.1	23	Gabon	3.0	13.6	37	Zimbabwe	0.0	0.0
12	Niger	13.0	59.1	23	Mauritania	3.0	13.6				

Emissions per capita (GHGCAP)
Target value: 2.24 metric tons $C0_2$ equivalent

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Bangladesh	1.3	100.0	51	Niger	5.2	94.2	101	United Kingdom	11.0	83.1
2	El Salvador	2.0	100.0	52	Colombia	5.3	94.0	102	Japan	11.0	83.1
3	Eritrea	2.1	100.0	53	Burundi	5.3	94.0	103	South Korea	11.2	82.7
4	Ethiopia	1.7	100.0	54	Peru	5.4	94.0	104	Paraguay	11.2	82.6
5	Haiti	1.3	100.0	55	Lebanon	5.4	93.9	105	Taiwan	11.4	82.3
6	India	2.2	100.0	56	Bosnia & Herz.	5.4	93.9	106	Greece	11.4	82.3
7	Kenya	1.8	100.0	57	Benin	5.5	93.7	107	Denmark	11.7	81.8
8	Nigeria	2.1	100.0	58	Mali	5.5	93.7	108	Austria	11.8	81.6
9	Philippines	2.1	100.0	59	Kyrgyzstan	5.6	93.5	109	Cyprus	11.8	81.6
10	Senegal	2.0	100.0	60	Latvia	5.7	93.4	110	Zambia	12.0	81.2
11	Sri Lanka	1.9	100.0	61	Guatemala	5.7	93.4	111	Brazil	12.1	80.9
12	Uganda	1.6	100.0	62	China	5.7	93.3	112	Germany	12.2	80.8
13	Yemen	1.7	100.0	63	Myanmar	5.8	93.2	113	Norway	12.6	79.9
14	Pakistan	2.3	100.0	64	Thailand	6.0	92.8	114	Iceland	12.9	79.5
15	Ghana	2.4	99.8	65	Romania	6.1	92.5	115	Finland	13.2	78.8
16	Mozambique	2.5	99.4	66	Chile	6.1	92.5	116	Venezuela	13.4	78.4
17	Morocco	2.5	99.4	67	Namibia	6.2	92.4	117	Netherlands	13.6	78.1
18	Albania	2.9	98.8	68	Lithuania	6.5	91.7	118	Belgium	13.8	77.7
19	Viet Nam	2.9	98.8	69	Mexico	6.9	91.1	119	Central Afr. Rep.	14.1	77.1
20	Moldova	3.0	98.6	70	Croatia	7.0	90.8	120	Estonia	14.1	77.1
21	Honduras	3.1	98.4	71	Indonesia	7.2	90.5	121	Czech Rep.	14.3	76.7
22	Togo	3.1	98.3	72	Sweden	7.5	89.8	122	Oman	14.4	76.6
23	Madagascar	3.2	98.2	73	Panama	7.6	89.7	123	Uruguay	14.4	76.6
24	Dominican Rep.	3.2	98.1	74	Chad	7.6	89.7	124	Mongolia	14.7	75.9
25	Armenia	3.3	98.0	75	Sierra Leone	7.7	89.4	125	Russia	15.5	74.5
26	Egypt	3.3	98.0	76	Gabon	7.8	89.3	126	Ireland	15.6	74.3
27	Cambodia	3.3	97.9	77	Switzerland	7.9	89.1	127	Malaysia	15.8	73.7
28	Costa Rica	3.4	97.8	78	Portugal	8.0	88.9	128	Saudi Arabia	17.6	70.4
29	Malawi	3.4	97.8	79	Papua New Guin.	8.1	88.8	129	Angola	20.0	65.8
30	Tajikistan	3.5	97.6	80	Hungary	8.1	88.7	130	Trin. & Tob.	21.7	62.5
31	Tanzania	3.5	97.5	81	Azerbaijan	8.1	88.7	131	Turkmenistan	22.7	60.4
32	Iraq	3.6	97.3	82	Bulgaria	8.1	88.6	132	New Zealand	22.8	60.3
33	Burkina Faso	3.7	97.3	83	Uzbekistan	8.2	88.5	133	Canada	23.1	59.7
34	Tunisia	3.7	97.2	84	Iran	8.8	87.3	134	Mauritania	23.3	59.4
35	Nepal	3.7	97.2	85	Ukraine	8.9	87.2	135	United States	24.9	56.3
36	Syria	3.7	97.1	86	Argentina	8.9	87.1	136	Guinea-Bissau	25.6	55.0
37	Zimbabwe	3.9	96.8	87	France	9.1	86.7	137	Luxembourg	25.9	54.3
38	Algeria	4.0	96.5	88	South Africa	9.3	86.4	138	Kazakhstan	29.0	48.4
39	Jordan	4.2	96.2	89	Slovakia	9.3	86.4	139	Kuwait	30.1	46.1
40	Georgia	4.3	96.0	90	Belarus	9.4	86.1	140	Australia	30.5	45.4
41	Turkey	4.5	95.7	91	Dem. Rep. Congo	9.5	85.9	141	Bolivia	31.0	44.5
42	Rwanda	4.5	95.6	92	Côte d'Ivoire	9.6	85.8	142	United Arab Em.	34.1	38.6
43	Cuba	4.6	95.4	93	Israel	9.9	85.2	143	Mauritius	35.0	36.8
44	Cameroon	4.7	95.2	94	Italy	10.1	84.9	144	Swaziland	39.7	27.6
45	Sudan	4.7	95.2	95	Poland	10.3	84.5	145	Fiji	48.2	11.2
46	Ecuador	4.9	94.8	96	Slovenia	10.3	84.4	146	Djibouti	50.9	6.2
47	Jamaica	5.0	94.7	97	Laos	10.4	84.2	147	Belize	54.1	0.0
48	Nicaragua	5.1	94.5	98	Botswana	10.5	84.1	148	Guyana	54.1	0.0
49	Guinea	5.1	94.5	99	Congo	10.6	83.9	149	Solomon Islands	54.1	0.0
50	Macedonia	5.2	94.3	100	Spain	10.9	83.3				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	El Salvador	2.0	100.0	10	Colombia	5.3	94.0	19	Venezuela	13.4	78.4
1	Haiti	1.3	100.0	11	Peru	5.4	94.0	20	Uruguay	14.4	76.6
3	Honduras	3.1	98.4	12	Guatemala	5.7	93.4	21	Trin. & Tob.	21.7	62.5
4	Dominican Rep.	3.2	98.1	13	Chile	6.1	92.5	22	Canada	23.1	59.7
5	Costa Rica	3.4	97.8	14	Mexico	6.9	91.1	23	United States	24.9	56.3
6	Cuba	4.6	95.4	15	Panama	7.6	89.7	24	Bolivia	31.0	44.5
7	Ecuador	4.9	94.8	16	Argentina	8.9	87.1	25	Belize	54.1	0.0
8	Jamaica	5.0	94.7	17	Paraguay	11.2	82.6	25	Guyana	54.1	0.0
9	Nicaragua	5.1	94.5	18	Brazil	12.1	80.9				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Albania	2.9	98.8	8	Romania	6.1	92.5	15	Belarus	9.4	86.1
2	Moldova	3.0	98.6	9	Azerbaijan	8.1	88.7	16	Czech Rep.	14.3	76.7
3	Tajikistan	3.5	97.6	9	Hungary	8.1	88.7	17	Russia	15.5	74.5
4	Georgia	4.3	96.0	11	Bulgaria	8.1	88.6	18	Turkmenistan	22.7	60.4
5	Macedonia	5.2	94.3	12	Uzbekistan	8.2	88.5	19	Kazakhstan	29.0	48.4
6	Bosnia & Herz.	5.4	93.9	13	Ukraine	8.9	87.2				
7	Kyrgyzstan	5.6	93.5	14	Slovakia	9.3	86.4				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Philippines	2.1	100.0	7	Indonesia	7.2	90.5	13	Mongolia	14.7	75.9
2	Viet Nam	2.9	98.8	8	Papua New Guin.	8.1	88.8	14	Malaysia	15.8	73.7
3	Cambodia	3.3	97.9	9	Laos	10.4	84.2	15	New Zealand	22.8	60.3
4	China	5.7	93.3	10	Japan	11.0	83.1	16	Australia	30.5	45.4
5	Myanmar	5.8	93.2	11	South Korea	11.2	82.7	17	Fiji	48.2	11.2
6	Thailand	6.0	92.8	12	Taiwan	11.4	82.3	18	Solomon Islands	54.1	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Latvia	5.7	93.4	10	Slovenia	10.3	84.4	19	Iceland	12.9	79.5
2	Lithuania	6.5	91.7	11	Spain	10.9	83.3	20	Finland	13.2	78.8
3	Croatia	7.0	90.8	12	United Kingdom	11.0	83.1	21	Netherlands	13.6	78.1
4	Sweden	7.5	89.8	13	Greece	11.4	82.3	22	Belgium	13.8	77.7
5	Switzerland	7.9	89.1	14	Denmark	11.7	81.8	23	Estonia	14.1	77.1
6	Portugal	8.0	88.9	15	Austria	11.8	81.6	24	Ireland	15.6	74.3
7	France	9.1	86.7	16	Cyprus	11.8	81.6	25	Luxembourg	25.9	54.3
8	Italy	10.1	84.9	17	Germany	12.2	80.8				
9	Poland	10.3	84.5	18	Norway	12.6	79.9				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Yemen	1.7	100.0	7	Syria	3.7	97.1	13	Iran	8.8	87.3
2	Morocco	2.5	99.4	8	Algeria	4.0	96.5	14	Israel	9.9	85.2
3	Armenia	3.3	98.0	9	Jordan	4.2	96.2	15	Oman	14.4	76.6
4	Egypt	3.3	98.0	10	Turkey	4.5	95.7	16	Saudi Arabia	17.6	70.4
5	Iraq	3.6	97.3	11	Sudan	4.7	95.2	17	Kuwait	30.1	46.1
6	Tunisia	3.7	97.2	12	Lebanon	5.4	93.9	18	United Arab Em.	34.1	38.6

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Bangladesh	1.3	100.0	1	Pakistan	2.3	100.0	5	Nepal	3.7	97.2

1	India	2.2	100.0	1	Sri Lanka	1.9	100.0

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Eritrea	2.1	100.0	14	Zimbabwe	3.9	96.8	27	Dem. Rep. Congo	9.5	85.9
1	Ethiopia	1.7	100.0	15	Rwanda	4.5	95.6	28	Côte d'Ivoire	9.6	85.8
1	Kenya	1.8	100.0	16	Cameroon	4.7	95.2	29	Botswana	10.5	84.1
1	Nigeria	2.1	100.0	17	Guinea	5.1	94.5	30	Congo	10.6	83.9
1	Senegal	2.0	100.0	18	Niger	5.2	94.2	31	Zambia	12.0	81.2
1	Uganda	1.6	100.0	19	Burundi	5.3	94.0	32	Central Afr. Rep.	14.1	77.1
7	Ghana	2.4	99.8	20	Benin	5.5	93.7	33	Angola	20.0	65.8
8	Mozambique	2.5	99.4	21	Mali	5.5	93.7	34	Mauritania	23.3	59.4
9	Togo	3.1	98.3	22	Namibia	6.2	92.4	35	Guinea-Bissau	25.6	55.0
10	Madagascar	3.2	98.2	23	Chad	7.6	89.7	36	Mauritius	35.0	36.8
11	Malawi	3.4	97.8	24	Sierra Leone	7.7	89.4	37	Swaziland	39.7	27.6
12	Tanzania	3.5	97.5	25	Gabon	7.8	89.3	38	Djibouti	50.9	6.2
13	Burkina Faso	3.7	97.3	26	South Africa	9.3	86.4				

Industrial Carbon Intensity (CO2IND)
Target value: 0.85

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Botswana	0.8	100.0	51	Jamaica	1.4	92.1	101	Australia	2.5	76.2
2	Burundi	0.8	100.0	52	Georgia	1.4	91.7	102	Yemen	2.6	74.6
3	Cambodia	0.1	100.0	53	United Kingdom	1.4	91.6	103	Japan	2.6	74.6
4	Cameroon	0.2	100.0	54	Bolivia	1.4	91.3	104	Poland	2.6	74.5
5	Central Afr. Rep.	0.8	100.0	55	Bangladesh	1.4	91.3	105	Panama	2.6	74.0
6	Chad	0.7	100.0	56	Nicaragua	1.5	91.2	106	India	2.6	73.8
7	Congo	0.1	100.0	57	Fiji	1.5	91.1	107	United States	2.6	73.7
8	Costa Rica	0.6	100.0	58	Mauritius	1.5	91.1	108	Croatia	2.7	73.6
9	Dem. Rep. Congo	0.8	100.0	59	Guinea-Bissau	1.5	90.9	109	Finland	2.7	72.7
10	Dominican Rep.	0.8	100.0	60	Djibouti	1.5	90.5	110	Indonesia	2.8	72.1
11	Eritrea	0.4	100.0	61	Sweden	1.5	89.9	111	Malaysia	2.8	72.0
12	Ghana	0.8	100.0	62	Sierra Leone	1.6	89.4	112	Cyprus	2.8	71.7
13	Mali	0.8	100.0	63	Greece	1.6	89.0	113	Macedonia	2.8	71.6
14	Mozambique	0.4	100.0	64	Peru	1.6	88.8	114	Canada	2.9	69.7
15	Namibia	0.6	100.0	65	Guatemala	1.6	88.5	115	Zimbabwe	3.0	69.3
16	Nigeria	0.6	100.0	66	Lithuania	1.6	88.4	116	Viet Nam	3.0	69.2
17	Paraguay	0.5	100.0	67	Tanzania	1.8	86.3	117	Myanmar	3.1	67.5
18	Rwanda	0.8	100.0	68	Tunisia	1.8	86.1	118	Iceland	3.1	67.4
19	Sudan	0.5	100.0	69	Hungary	1.8	86.1	119	Czech Rep.	3.2	65.7
20	Tajikistan	0.0	100.0	70	Germany	1.8	85.5	120	Zambia	3.4	62.6
21	Togo	0.6	100.0	71	Haiti	1.9	85.4	121	Netherlands	3.5	61.9
22	Turkmenistan	0.0	100.0	72	Ecuador	1.9	85.3	122	Saudi Arabia	3.5	61.8
23	Uganda	0.8	100.0	73	Kenya	1.9	85.3	123	Romania	3.5	61.2
24	Uruguay	0.8	100.0	74	Colombia	1.9	85.0	124	Iran	3.5	60.7
25	Sri Lanka	0.9	99.7	75	Albania	1.9	85.0	125	Moldova	3.6	60.3
26	Guinea	0.9	99.6	76	Latvia	1.9	84.8	126	Belgium	3.6	59.7
27	Algeria	0.9	99.6	77	Morocco	2.0	83.9	127	Egypt	3.6	59.4
28	Philippines	0.9	99.3	78	Portugal	2.0	83.5	128	South Africa	3.6	59.1
29	Burkina Faso	0.9	99.3	79	New Zealand	2.0	82.7	129	Jordan	3.6	59.1
30	Norway	0.9	98.9	80	Taiwan	2.0	82.5	130	Luxembourg	3.7	57.9
31	Cuba	1.0	98.1	81	Slovenia	2.1	82.4	131	Kuwait	3.8	56.8
32	Ireland	1.0	97.8	82	Italy	2.1	82.3	132	Mongolia	4.0	54.0
33	Switzerland	1.0	97.4	83	Austria	2.1	82.3	133	Slovakia	4.1	52.3
34	Nepal	1.0	97.3	84	Chile	2.1	81.3	134	Venezuela	4.2	50.9
35	Azerbaijan	1.1	97.1	85	Senegal	2.2	80.5	135	Belarus	4.2	50.9
36	Côte d'Ivoire	1.1	96.9	86	Mauritania	2.2	80.5	136	Russia	4.2	50.7
37	Laos	1.1	96.8	87	Belize	2.2	80.4	137	Turkey	4.2	50.4
38	Niger	1.1	96.5	88	Spain	2.2	80.3	138	China	4.3	49.7
39	Benin	1.1	96.3	89	France	2.2	80.2	139	Bulgaria	4.3	49.5
40	Malawi	1.1	96.1	90	Estonia	2.2	80.0	140	Syria	4.6	45.4
41	Angola	1.2	95.0	91	Bosnia & Herz.	2.3	79.4	141	Pakistan	4.7	43.1
42	Gabon	1.2	94.6	92	Israel	2.3	79.0	142	United Arab Em.	5.5	32.1
43	Denmark	1.3	94.1	93	Guyana	2.3	79.0	143	Iraq	10.5	0.0
44	El Salvador	1.3	94.0	94	Mexico	2.3	78.9	144	Kazakhstan	8.3	0.0
45	Madagascar	1.3	93.7	95	Armenia	2.3	78.3	145	Kyrgyzstan	8.1	0.0
46	Papua New Guin.	1.3	93.6	96	Brazil	2.4	78.0	146	Lebanon	8.1	0.0
47	Swaziland	1.3	93.0	97	Thailand	2.4	77.8	147	Trin. & Tob.	13.5	0.0
48	Argentina	1.4	92.7	98	South Korea	2.4	76.9	148	Ukraine	9.3	0.0
49	Ethiopia	1.4	92.4	99	Honduras	2.5	76.6	149	Uzbekistan	14.5	0.0
50	Solomon Islands	1.4	92.3	100	Oman	2.5	76.4				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Costa Rica	0.6	100.0	10	Nicaragua	1.5	91.2	19	Mexico	2.3	78.9
1	Dominican Rep.	0.8	100.0	11	Peru	1.6	88.8	20	Brazil	2.4	78.0
1	Paraguay	0.5	100.0	12	Guatemala	1.6	88.5	21	Honduras	2.5	76.6
1	Uruguay	0.8	100.0	13	Haiti	1.9	85.4	22	Panama	2.6	74.0
5	Cuba	1.0	98.1	14	Ecuador	1.9	85.3	23	United States	2.6	73.7
6	El Salvador	1.3	94.0	15	Colombia	1.9	85.0	24	Canada	2.9	69.7
7	Argentina	1.4	92.7	16	Chile	2.1	81.3	25	Venezuela	4.2	50.9
8	Jamaica	1.4	92.1	17	Belize	2.2	80.4	26	Trin. & Tob.	13.5	0.0
9	Bolivia	1.4	91.3	18	Guyana	2.3	79.0				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Tajikistan	0.0	100.0	8	Macedonia	2.8	71.6	15	Bulgaria	4.3	49.5
1	Turkmenistan	0.0	100.0	9	Czech Rep.	3.2	65.7	16	Kazakhstan	8.3	0.0
3	Azerbaijan	1.1	97.1	10	Romania	3.5	61.2	16	Kyrgyzstan	8.1	0.0
4	Georgia	1.4	91.7	11	Moldova	3.6	60.3	16	Ukraine	9.3	0.0
5	Hungary	1.8	86.1	12	Slovakia	4.1	52.3	16	Uzbekistan	14.5	0.0
6	Albania	1.9	85.0	13	Belarus	4.2	50.9				
7	Bosnia & Herz.	2.3	79.4	14	Russia	4.2	50.7				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Cambodia	0.1	100.0	7	New Zealand	2.0	82.7	13	Indonesia	2.8	72.1
2	Philippines	0.9	99.3	8	Taiwan	2.0	82.5	14	Malaysia	2.8	72.0
3	Laos	1.1	96.8	9	Thailand	2.4	77.8	15	Viet Nam	3.0	69.2
4	Papua New Guin.	1.3	93.6	10	South Korea	2.4	76.9	16	Myanmar	3.1	67.5
5	Solomon Islands	1.4	92.3	11	Australia	2.5	76.2	17	Mongolia	4.0	54.0
6	Fiji	1.5	91.1	12	Japan	2.6	74.6	18	China	4.3	49.7

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Norway	0.9	98.9	10	Latvia	1.9	84.8	19	Croatia	2.7	73.6
2	Ireland	1.0	97.8	11	Portugal	2.0	83.5	20	Finland	2.7	72.7
3	Switzerland	1.0	97.4	12	Slovenia	2.1	82.4	21	Cyprus	2.8	71.7
4	Denmark	1.3	94.1	13	Italy	2.1	82.3	22	Iceland	3.1	67.4
5	United Kingdom	1.4	91.6	14	Austria	2.1	82.3	23	Netherlands	3.5	61.9
6	Sweden	1.5	89.9	15	Spain	2.2	80.3	24	Belgium	3.6	59.7
7	Greece	1.6	89.0	16	France	2.2	80.2	25	Luxembourg	3.7	57.9
8	Lithuania	1.6	88.4	17	Estonia	2.2	80.0				
9	Germany	1.8	85.5	18	Poland	2.6	74.5				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sudan	0.5	100.0	7	Oman	2.5	76.4	13	Kuwait	3.8	56.8
2	Algeria	0.9	99.6	8	Yemen	2.6	74.6	14	Turkey	4.2	50.4
3	Tunisia	1.8	86.1	9	Saudi Arabia	3.5	61.8	15	Syria	4.6	45.4
4	Morocco	2.0	83.9	10	Iran	3.5	60.7	16	United Arab Em.	5.5	32.1
5	Israel	2.3	79.0	11	Egypt	3.6	59.4	17	Iraq	10.5	0.0
6	Armenia	2.3	78.3	12	Jordan	3.6	59.1	17	Lebanon	8.1	0.0

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Sri Lanka	0.9	99.7	3	Bangladesh	1.4	91.3	5	Pakistan	4.7	43.1

2	Nepal	1.0	97.3	4	India	2.6	73.8

Sub-Saharan Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Botswana	0.8	100.0	1	Rwanda	0.8	100.0	27	Ethiopia	1.4	92.4
1	Burundi	0.8	100.0	1	Togo	0.6	100.0	28	Mauritius	1.5	91.1
1	Cameroon	0.2	100.0	1	Uganda	0.8	100.0	29	Guinea-Bissau	1.5	90.9
1	Central Afr. Rep.	0.8	100.0	17	Guinea	0.9	99.6	30	Djibouti	1.5	90.5
1	Chad	0.7	100.0	18	Burkina Faso	0.9	99.3	31	Sierra Leone	1.6	89.4
1	Congo	0.1	100.0	19	Côte d'Ivoire	1.1	96.9	32	Tanzania	1.8	86.3
1	Dem. Rep. Congo	0.8	100.0	20	Niger	1.1	96.5	33	Kenya	1.9	85.3
1	Eritrea	0.4	100.0	21	Benin	1.1	96.3	34	Senegal	2.2	80.5
1	Ghana	0.8	100.0	22	Malawi	1.1	96.1	35	Mauritania	2.2	80.5
1	Mali	0.8	100.0	23	Angola	1.2	95.0	36	Zimbabwe	3.0	69.3
1	Mozambique	0.4	100.0	24	Gabon	1.2	94.6	37	Zambia	3.4	62.6
1	Namibia	0.6	100.0	25	Madagascar	1.3	93.7	38	South Africa	3.6	59.1
1	Nigeria	0.6	100.0	26	Swaziland	1.3	93.0				

Emissions per electricity generation (CO2KWH)
Target value: 0

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Congo	0.0	100.0	51	Angola	343.0	63.0	101	United States	573.0	38.2
2	Paraguay	0.0	100.0	52	Germany	349.0	62.4	102	Dominican Rep.	574.0	38.1
3	Iceland	1.0	99.9	53	Chile	357.0	61.5	103	Ireland	584.0	37.0
4	Mozambique	1.0	99.9	54	Myanmar	365.0	60.7	104	Syria	587.0	36.7
5	Nepal	1.0	99.9	55	Fiji	365.8	60.6	105	Burkina Faso	591.0	36.3
6	Dem. Rep. Congo	3.0	99.7	56	Gabon	368.0	60.3	106	Tanzania	607.0	34.6
7	Norway	6.0	99.4	57	Ecuador	369.0	60.2	107	Bosnia & Herz.	619.0	33.3
8	Zambia	6.8	99.3	58	Pakistan	380.0	59.0	108	Mauritius	625.0	32.6
9	Ethiopia	7.0	99.2	59	Guatemala	384.0	58.6	109	Taiwan	632.0	31.9
10	Namibia	26.0	97.2	60	Netherlands	387.0	58.3	110	Senegal	634.0	31.7
11	Switzerland	26.0	97.2	61	Romania	394.0	57.5	111	Mauritania	639.6	31.1
12	Costa Rica	27.0	97.1	62	Spain	394.0	57.5	112	Guyana	644.8	30.5
13	Tajikistan	27.0	97.1	63	Sri Lanka	398.0	57.1	113	Macedonia	645.0	30.5
14	Albania	34.0	96.3	64	Nigeria	403.0	56.6	114	Chad	648.6	30.1
15	Laos	35.5	96.2	65	Italy	405.0	56.3	115	Djibouti	648.6	30.1
16	Cameroon	39.0	95.8	66	Viet Nam	406.0	56.2	116	Guinea-Bissau	648.6	30.1
17	Sweden	45.0	95.1	67	Honduras	411.0	55.7	117	Niger	648.6	30.1
18	Kyrgyzstan	82.0	91.2	68	South Korea	418.0	54.9	118	Sierra Leone	648.6	30.1
19	Brazil	84.0	90.9	69	Japan	429.0	53.8	119	Solomon Islands	648.6	30.1
20	Georgia	89.0	90.4	70	Mali	432.1	53.4	120	Poland	659.0	29.0
21	France	91.0	90.2	71	Turkey	433.0	53.3	121	Jordan	660.0	28.8
22	Malawi	96.1	89.6	72	Uzbekistan	443.0	52.2	122	Estonia	665.0	28.3
23	Uruguay	103.0	88.9	73	Bulgaria	448.0	51.7	123	Lebanon	667.0	28.1
24	Lithuania	130.0	86.0	74	Guinea	451.8	51.3	124	Algeria	671.0	27.7
25	Armenia	138.0	85.1	75	Burundi	459.0	50.5	125	Eritrea	696.0	25.0
26	Uganda	151.7	83.6	76	Egypt	471.0	49.2	126	Iraq	701.0	24.4
27	Latvia	162.0	82.5	77	United Kingdom	473.0	49.0	127	Trin. & Tob.	709.0	23.6
28	Colombia	163.0	82.4	78	Togo	474.0	48.9	128	Benin	710.0	23.5
29	Finland	194.0	79.1	79	Bolivia	481.0	48.1	129	Jamaica	713.0	23.1
30	Peru	198.0	78.7	80	Tunisia	482.0	48.0	130	Saudi Arabia	748.0	19.4
31	Canada	199.0	78.5	81	Madagascar	486.8	47.5	131	Israel	767.0	17.3
32	Ghana	204.0	78.0	82	Central Afr. Rep.	489.1	47.3	132	Indonesia	771.0	16.9
33	Austria	225.0	75.7	83	Philippines	495.0	46.6	133	Greece	776.0	16.3
34	Venezuela	225.0	75.7	84	Portugal	498.0	46.3	134	Morocco	778.0	16.1
35	Slovakia	232.0	75.0	85	Azerbaijan	505.0	45.6	135	China	788.0	15.0
36	El Salvador	263.0	71.6	86	Papua New Guin.	507.5	45.3	136	Cyprus	792.0	14.6
37	Belgium	268.0	71.1	87	Mexico	515.0	44.5	137	Turkmenistan	795.0	14.3
38	New Zealand	275.0	70.4	88	Czech Rep.	516.0	44.4	138	Kuwait	807.0	13.0
39	Panama	277.0	70.1	89	Moldova	516.0	44.4	139	United Arab Em.	844.0	9.0
40	Denmark	284.0	69.4	90	Côte d'Ivoire	518.0	44.2	140	Yemen	845.5	8.9
41	Belarus	299.0	67.8	91	Thailand	531.0	42.8	141	South Africa	848.0	8.6
42	Argentina	306.0	67.0	92	Mongolia	533.0	42.5	142	Sudan	848.0	8.6
43	Haiti	307.0	66.9	93	Iran	534.0	42.4	143	Oman	855.0	7.8
44	Kenya	307.0	66.9	94	Nicaragua	539.0	41.9	144	Australia	873.0	5.9
45	Croatia	311.0	66.5	95	Swaziland	541.3	41.6	145	Botswana	1848.0	0.0
46	Ukraine	314.0	66.1	96	Bangladesh	557.0	40.0	146	Cambodia	1206.0	0.0
47	Luxembourg	328.0	64.6	97	Malaysia	557.0	40.0	147	Cuba	987.0	0.0
48	Slovenia	328.0	64.6	98	Belize	571.1	38.4	148	India	943.0	0.0
49	Russia	338.0	63.6	99	Zimbabwe	572.3	38.3	149	Kazakhstan	1137.0	0.0
50	Hungary	339.0	63.5	100	Rwanda	572.4	38.3				

Central and Eastern Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Tajikistan	27.0	97.1	8	Russia	338.0	63.6	14	Moldova	516.0	44.4
2	Albania	34.0	96.3	9	Hungary	339.0	63.5	16	Bosnia & Herz.	619.0	33.3

3	Kyrgyzstan	82.0	91.2	10	Romania	394.0	57.5	17	Macedonia	645.0	30.5
4	Georgia	89.0	90.4	11	Uzbekistan	443.0	52.2	18	Turkmenistan	795.0	14.3
5	Slovakia	232.0	75.0	12	Bulgaria	448.0	51.7	19	Kazakhstan	1137.0	0.0
6	Belarus	299.0	67.8	13	Azerbaijan	505.0	45.6				
7	Ukraine	314.0	66.1	14	Czech Rep.	516.0	44.4				

East Asia and the Pacific

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Laos	35.5	96.2	7	Japan	429.0	53.8	13	Taiwan	632.0	31.9
2	New Zealand	275.0	70.4	8	Philippines	495.0	46.6	14	Solomon Islands	648.6	30.1
3	Myanmar	365.0	60.7	9	Papua New Guin.	507.5	45.3	15	Indonesia	771.0	16.9
4	Fiji	365.8	60.6	10	Thailand	531.0	42.8	16	China	788.0	15.0
5	Viet Nam	406.0	56.2	11	Mongolia	533.0	42.5	17	Australia	873.0	5.9
6	South Korea	418.0	54.9	12	Malaysia	557.0	40.0	18	Cambodia	1206	0.0

Europe

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Iceland	1.0	99.9	10	Belgium	268.0	71.1	19	United Kingdom	473.0	49.0
2	Norway	6.0	99.4	11	Denmark	284.0	69.4	20	Portugal	498.0	46.3
3	Switzerland	26.0	97.2	12	Croatia	311.0	66.5	21	Ireland	584.0	37.0
4	Sweden	45.0	95.1	13	Luxembourg	328.0	64.6	22	Poland	659.0	29.0
5	France	91.0	90.2	14	Slovenia	328.0	64.6	23	Estonia	665.0	28.3
6	Lithuania	130.0	86.0	15	Germany	349.0	62.4	24	Greece	776.0	16.3
7	Latvia	162.0	82.5	16	Netherlands	387.0	58.3	25	Cyprus	792.0	14.6
8	Finland	194.0	79.1	17	Spain	394.0	57.5				
9	Austria	225.0	75.7	18	Italy	405.0	56.3				

Americas

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Paraguay	0.0	100.0	10	Panama	277.0	70.1	19	Nicaragua	539.0	41.9
2	Costa Rica	27.0	97.1	11	Argentina	306.0	67.0	20	Belize	571.1	38.4
3	Brazil	84.0	90.9	12	Haiti	307.0	66.9	21	United States	573.0	38.2
4	Uruguay	103.0	88.9	13	Chile	357.0	61.5	22	Dominican Rep.	574.0	38.1
5	Colombia	163.0	82.4	14	Ecuador	369.0	60.2	23	Guyana	644.8	30.5
6	Peru	198.0	78.7	15	Guatemala	384.0	58.6	24	Trin. & Tob.	709.0	23.6
7	Canada	199.0	78.5	16	Honduras	411.0	55.7	25	Jamaica	713.0	23.1
8	Venezuela	225.0	75.7	17	Bolivia	481.0	48.1	26	Cuba	987.0	0.0
9	El Salvador	263.0	71.6	18	Mexico	515.0	44.5				

Middle East and North Africa

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Armenia	138.0	85.1	7	Jordan	660.0	28.8	13	Morocco	778.0	16.1
2	Turkey	433.0	53.3	8	Lebanon	667.0	28.1	14	Kuwait	807.0	13.0
3	Egypt	471.0	49.2	9	Algeria	671.0	27.7	15	United Arab Em.	844.0	9.0
4	Tunisia	482.0	48.0	10	Iraq	701.0	24.4	16	Yemen	845.5	8.9
5	Iran	534.0	42.4	11	Saudi Arabia	748.0	19.4	17	Sudan	848.0	8.6
6	Syria	587.0	36.7	12	Israel	767.0	17.3	18	Oman	855.0	7.8

South Asia

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Nepal	1.0	99.9	3	Sri Lanka	398.0	57.1	5	India	943.0	0.0
2	Pakistan	380.0	59.0	4	Bangladesh	557.0	40.0				

Sub-Saharan Africa

2008 Environmental Performance Index

Rank	Country	Value	PT	Rank	Country	Value	PT	Rank	Country	Value	PT
1	Congo	0.0	100.0	14	Nigeria	403.0	56.6	27	Mauritius	625.0	32.6
2	Mozambique	1.0	99.9	15	Mali	432.1	53.4	28	Senegal	634.0	31.7
3	Dem. Rep. Congo	3.0	99.7	16	Guinea	451.8	51.3	29	Mauritania	639.6	31.1
4	Zambia	6.8	99.3	17	Burundi	459.0	50.5	30	Chad	648.6	30.1
5	Ethiopia	7.0	99.2	18	Togo	474.0	48.9	30	Djibouti	648.6	30.1
6	Namibia	26.0	97.2	19	Madagascar	486.8	47.5	30	Guinea-Bissau	648.6	30.1
7	Cameroon	39.0	95.8	20	Central Afr. Rep.	489.1	47.3	30	Niger	648.6	30.1
8	Malawi	96.1	89.6	21	Côte d'Ivoire	518.0	44.2	30	Sierra Leone	648.6	30.1
9	Uganda	151.7	83.6	22	Swaziland	541.3	41.6	35	Eritrea	696.0	25.0
10	Ghana	204.0	78.0	23	Rwanda	572.4	38.3	36	Benin	710.0	23.5
11	Kenya	307.0	66.9	23	Zimbabwe	572.3	38.3	37	South Africa	848.0	8.6
12	Angola	343.0	63.0	25	Burkina Faso	591.0	36.3	38	Botswana	1848	0.0
13	Gabon	368.0	60.3	26	Tanzania	607.0	34.6				

APPENDIX C: COUNTRY PROFILES

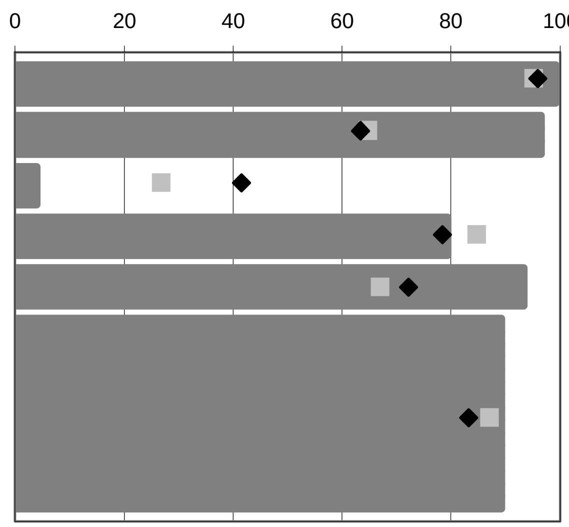
Albania

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $4,955
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	27
Score:	84.0
Income Group Avg.	75.8
Geographic Group Avg.	75.9

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	99.1	95.8	95.1
Water (eco)	96.5	63.4	64.8
Biodiv. and Habitat	4.0	41.5	26.9
Prod. Nat. Resources	79.4	78.4	84.8
Climate Change	93.4	72.3	67.1
Environmental Health	89.3	83.2	87.1

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	0.3	*0*	99.5
ACSAT	Adequate Sanitation (%)	91.0	*100*	89.5
WATSUP	Drinking Water (%)	96.0	*100*	93.2
PM10	Urban Particulates (µg/m^3)	55.52398	*20*	70.1
INDOOR	Indoor Air Pollution (%)	50.0	*0*	47.4
OZONE_H	Local Ozone (ppb)	15.8	*85*	99.1
OZONE_E	Regional Ozone (tons SO_2 / populated land)	680,845.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	0.6	*0*	98.5
WATQI	Water Quality (GEMS Water Quality Index score)	95.8	*100*	93.0
WATSTR	Water Stress (%)	0.0	*0*	90.3
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	5.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.2	*10*	1.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.6	*10*	6.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.7	*0*	25.1
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	6.2	*0*	90.2
BURNED	Burned Land Area (%)	2.9	*0*	78.9
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.9	*2.24*	98.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	34.0	*0*	96.3

CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.9	*0.85*	85.0

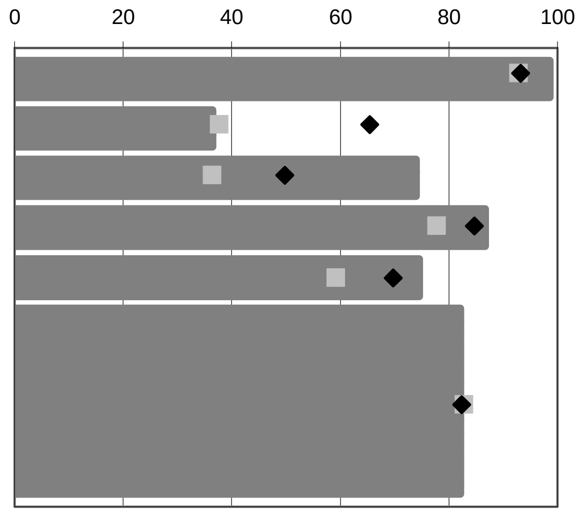
Algeria

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $6,376
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	66
Score:	77.0
Income Group Avg.	75.9
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.7	93.2	92.9
Water (eco)	36.5	65.4	37.8
Biodiv. and Habitat	73.9	49.7	36.5
Prod. Nat. Resources	86.7	84.7	77.8
Climate Change	74.6	69.7	59.2
Environmental Health	82.2	82.4	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	8.0	*0*	85.6
ACSAT	Adequate Sanitation (%)	92.0	*100*	90.6
WATSUP	Drinking Water (%)	85.0	*100*	74.5
PM10	Urban Particulates (µg/m^3)	88.14412	*20*	42.7
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	4.0	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,885,830.1	*3,000*	99.5
SO2	Sulfur Dioxide Emissions (ppb)	0.9	*0*	97.8
WATQI	Water Quality (GEMS Water Quality Index score)	37.7	*100*	0.0
WATSTR	Water Stress (%)	24.5	*0*	38.7
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	89.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.2	*10*	62.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.5	*10*	5.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	83.3
IRRSTR	Irrigation Stress (CIESIN, %)	31.7	*0*	62.7
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	55.9	*0*	11.6
BURNED	Burned Land Area (%)	0.1	*0*	99.5
PEST	Pesticide Regulation (points)	15.0	*22*	68.2
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.0	*2.24*	96.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	671.0	*0*	27.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.9	*0.85*	99.6

Angola

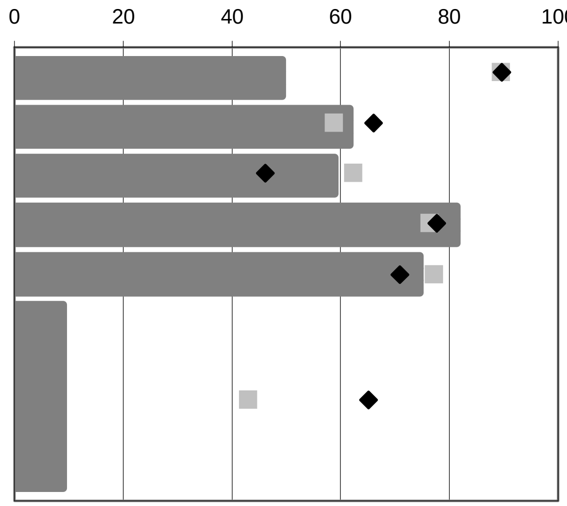
SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $2,314
Income Decile 7 (1=high, 10=low)

2008 EPI

Rank:	148
Score:	39.5
Income Group Avg.	66.8
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	49.2	89.6	89.6
Water (eco)	61.6	66.0	58.8
Biodiv. and Habitat	58.9	46.2	62.3
Prod. Nat. Resources	81.3	77.7	76.4
Climate Change	74.6	70.9	77.2
Environmental Health	8.9	65.2	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	109.0	*0*	0.0
ACSAT	Adequate Sanitation (%)	31.0	*100*	19.3
WATSUP	Drinking Water (%)	53.0	*100*	20.2
PM10	Urban Particulates (µg/m^3)	91.35495	*20*	40.0
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	4,948.8	*85*	0.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,364,330,004.5	*3,000*	0.0
SO2	Sulfur Dioxide Emissions (ppb)	0.7	*0*	98.4
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	5.5	*0*	98.3
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	99.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.6	*10*	95.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.4	*10*	14.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	95.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	74.5
IRRSTR	Irrigation Stress (CIESIN, %)	2.2	*0*	97.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	15.3	*0*	0.0
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	20.0	*2.24*	65.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	343.0	*0*	63.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.2	*0.85*	95.0

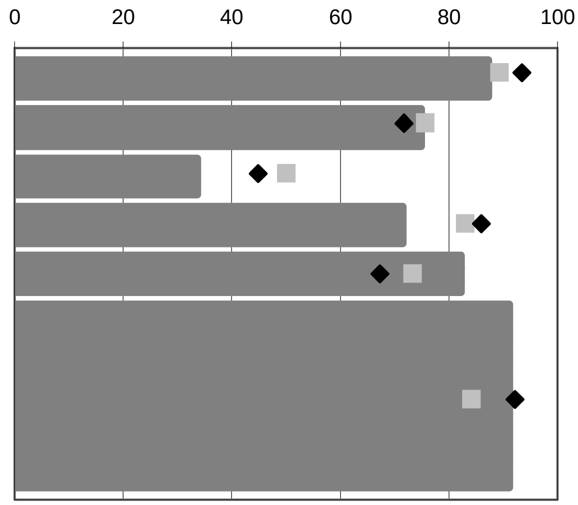
Argentina

AMERICAS

GDP/capita 2005 est. (PPP) $13,652
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	38
Score:	81.8
Income Group Avg.	80.5
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	87.3	93.4	89.3
Water (eco)	74.9	71.7	75.7
Biodiv. and Habitat	33.6	44.9	50.1
Prod. Nat. Resources	71.5	85.9	83.1
Climate Change	82.3	67.3	73.4
Environmental Health	91.1	92.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.1	*0*	98.0
ACSAT	Adequate Sanitation (%)	91.0	*100*	89.5
WATSUP	Drinking Water (%)	96.0	*100*	93.2
PM10	Urban Particulates (µg/m^3)	77.93632	*20*	51.3
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	140.4	*85*	92.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	99,632,701.4	*3,000*	75.7
SO2	Sulfur Dioxide Emissions (ppb)	0.5	*0*	98.8
WATQI	Water Quality (GEMS Water Quality Index score)	85.8	*100*	76.4
WATSTR	Water Stress (%)	24.1	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	39.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	3.4	*10*	33.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	40.0	*100*	40.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	75.9
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.8	*0*	17.5
IRRSTR	Irrigation Stress (CIESIN, %)	21.6	*0*	74.6
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	13.7	*0*	78.4
BURNED	Burned Land Area (%)	6.0	*0*	55.7
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.9	*2.24*	87.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	306.0	*0*	67.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.4	*0.85*	92.7

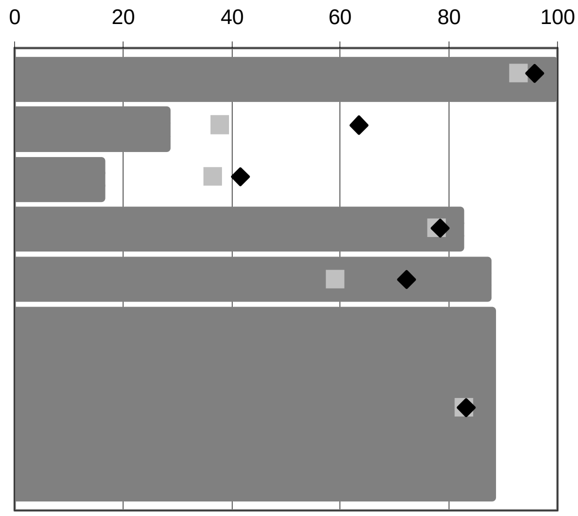
Armenia

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $5,011
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	62
Score:	77.8
Income Group Avg.	75.8
Geographic Group Avg.	70.0

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	99.4	95.8	92.9
Water (eco)	28.0	63.4	37.8
Biodiv. and Habitat	16.0	41.5	36.5
Prod. Nat. Resources	82.1	78.4	77.8
Climate Change	87.2	72.3	59.2
Environmental Health	88.0	83.2	82.9

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	83.0	*100*	80.1
WATSUP	Drinking Water (%)	92.0	*100*	86.4
PM10	Urban Particulates (µg/m^3)	68.71374	*20*	59.0
INDOOR	Indoor Air Pollution (%)	26.4	*0*	72.2
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.5	*0*	98.8
WATQI	Water Quality (GEMS Water Quality Index score)	58.9	*100*	31.7
WATSTR	Water Stress (%)	68.6	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	37.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.0	*10*	10.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	70.1
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	2.5	*0*	97.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	3.5	*0*	94.5
BURNED	Burned Land Area (%)	2.8	*0*	79.5
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.3	*2.24*	98.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	138.0	*0*	85.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.3	*0.85*	78.3

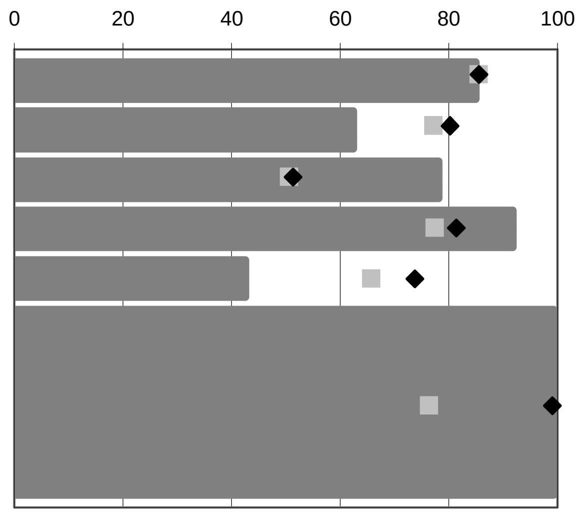
Australia

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $30,678
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	46
Score:	79.8
Income Group Avg.	86.0
Geographic Group Avg.	72.2

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	84.9	85.6	85.6
Water (eco)	62.5	80.3	77.3
Biodiv. and Habitat	78.1	51.4	50.7
Prod. Nat. Resources	91.8	81.3	77.4
Climate Change	42.5	73.8	65.8
Environmental Health	99.3	99.0	76.5

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	15.90869	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	11,575.3	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	12.7	*0*	69.9
WATQI	Water Quality (GEMS Water Quality Index score)	85.2	*100*	75.3
WATSTR	Water Stress (%)	45.7	*0*	73.4
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	86.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.9	*10*	79.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	69.4	*100*	69.4
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	7.8	*10*	78.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	93.5
IRRSTR	Irrigation Stress (CIESIN, %)	41.9	*0*	50.7
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	99.9
AGINT	Intensive Cropland (CIESIN, %)	12.9	*0*	79.6
BURNED	Burned Land Area (%)	5.0	*0*	63.3
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	30.5	*2.24*	45.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	873.0	*0*	5.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.5	*0.85*	76.2

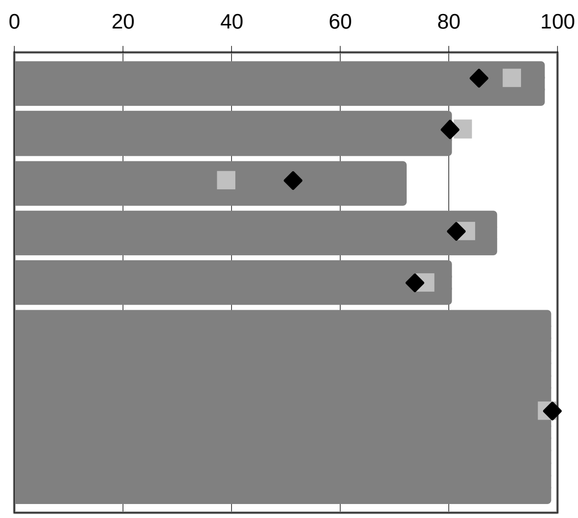
Austria

EUROPE

GDP/capita 2005 est. (PPP) $30,736
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	6
Score:	89.4
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.0	85.6	91.7
Water (eco)	79.9	80.3	82.7
Biodiv. and Habitat	71.6	51.4	39.1
Prod. Nat. Resources	88.2	81.3	83.3
Climate Change	79.9	73.8	75.8
Environmental Health	98.1	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	34.54303	*20*	87.8
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	15.7	*85*	99.2
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,828,480.0	*3,000*	99.6
SO2	Sulfur Dioxide Emissions (ppb)	2.4	*0*	94.4
WATQI	Water Quality (GEMS Water Quality Index score)	75.9	*100*	59.8
WATSTR	Water Stress (%)	0.0	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	80.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.3	*10*	63.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	23.3	*0*	63.2
BURNED	Burned Land Area (%)	0.5	*0*	96.0
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.8	*2.24*	81.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	225.0	*0*	75.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.1	*0.85*	82.3

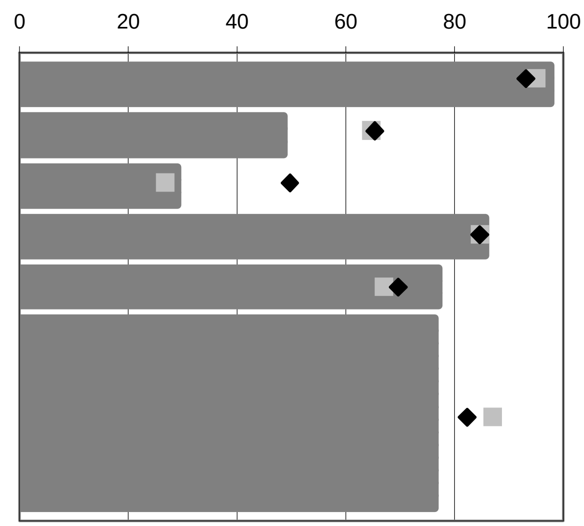
Azerbaijan

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $5,953
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	80
Score:	72.2
Income Group Avg.	75.9
Geographic Group Avg.	75.9

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	97.7	93.2	95.1
Water (eco)	48.5	65.4	64.8
Biodiv. and Habitat	29.0	49.7	26.9
Prod. Nat. Resources	85.7	84.7	84.8
Climate Change	77.1	69.7	67.1
Environmental Health	76.4	82.4	87.1

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	3.9	*0*	93.0
ACSAT	Adequate Sanitation (%)	54.0	*100*	46.2
WATSUP	Drinking Water (%)	77.0	*100*	61.0
PM10	Urban Particulates (µg/m^3)	59.22089	*20*	67.0
INDOOR	Indoor Air Pollution (%)	49.0	*0*	48.4
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.9	*0*	95.4
WATQI	Water Quality (GEMS Water Quality Index score)	58.9	*100*	31.7
WATSTR	Water Stress (%)	31.4	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	46.2
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.2	*10*	11.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	14.6	*0*	82.9
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	5.6	*0*	91.1
BURNED	Burned Land Area (%)	2.9	*0*	78.4
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.1	*2.24*	88.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	505.0	*0*	45.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.1	*0.85*	97.1

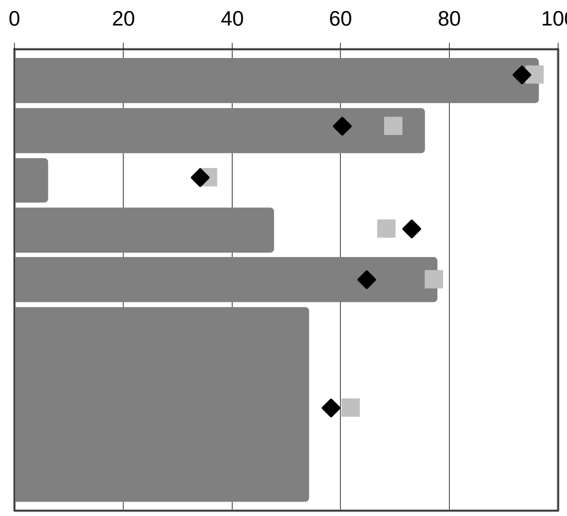
Bangladesh

SOUTH ASIA

GDP/capita 2005 est. (PPP) $1,916
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	125
Score:	58.0
Income Group Avg.	60.2
Geographic Group Avg.	65.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	95.7	93.3	95.7
Water (eco)	74.8	60.3	69.7
Biodiv. and Habitat	5.5	34.2	35.7
Prod. Nat. Resources	47.1	73.1	68.5
Climate Change	77.1	64.8	77.2
Environmental Health	53.6	58.3	62.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	14.0	*0*	74.8
ACSAT	Adequate Sanitation (%)	39.0	*100*	28.7
WATSUP	Drinking Water (%)	74.0	*100*	55.9
PM10	Urban Particulates (µg/m^3)	139.9854	*20*	0.0
INDOOR	Indoor Air Pollution (%)	88.9	*0*	6.4
OZONE_H	Local Ozone (ppb)	7.7	*85*	99.6
OZONE_E	Regional Ozone (tons SO_2 / populated land)	19,500,400.6	*3,000*	95.2
SO2	Sulfur Dioxide Emissions (ppb)	1.6	*0*	96.1
WATQI	Water Quality (GEMS Water Quality Index score)	75.5	*100*	59.3
WATSTR	Water Stress (%)	8.8	*0*	81.8
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	4.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.9	*10*	9.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	83.1
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	3.9	*0*	91.7
AGINT	Intensive Cropland (CIESIN, %)	68.0	*0*	0.0
BURNED	Burned Land Area (%)	0.1	*0*	99.3
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	1.3	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	557.0	*0*	40.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.4	*0.85*	91.3

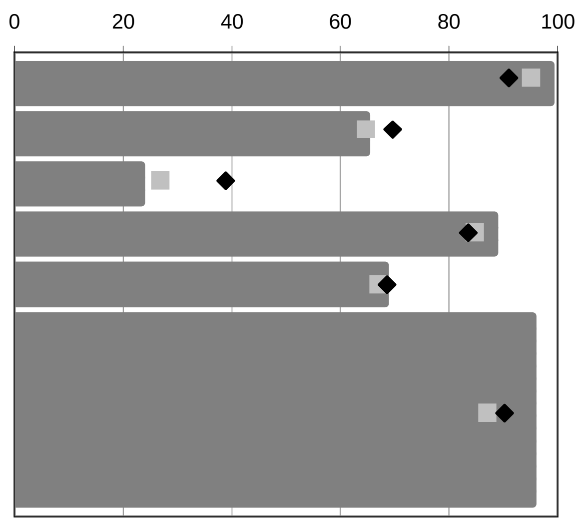
Belarus

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $7,810
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	43
Score:	80.5
Income Group Avg.	79.0
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.7	91.1	95.1
Water (eco)	64.8	69.6	64.8
Biodiv. and Habitat	23.3	38.9	26.9
Prod. Nat. Resources	88.4	83.6	84.8
Climate Change	68.3	68.6	67.1
Environmental Health	95.4	90.2	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.3	*0*	99.5
ACSAT	Adequate Sanitation (%)	84.0	*100*	81.3
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	6.727849	*20*	100.0
INDOOR	Indoor Air Pollution (%)	19.0	*0*	80.0
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.1	*0*	97.4
WATQI	Water Quality (GEMS Water Quality Index score)	58.9	*100*	31.7
WATSTR	Water Stress (%)	1.8	*0*	89.3
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	26.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.0	*10*	20.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	8.3	*0*	86.8
BURNED	Burned Land Area (%)	1.6	*0*	88.2
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	9.4	*2.24*	86.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	299.0	*0*	67.8
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.2	*0.85*	50.9

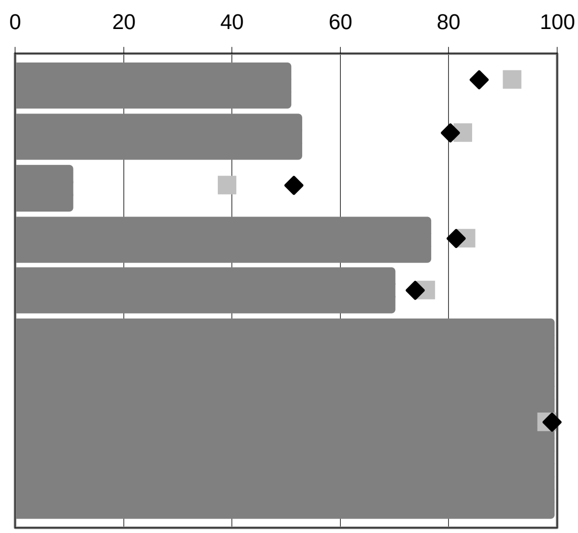
Belgium

EUROPE

GDP/capita 2005 est. (PPP) $30,004
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	57
Score:	78.4
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	50.2	85.6	91.7
Water (eco)	52.3	80.3	82.7
Biodiv. and Habitat	10.0	51.4	39.1
Prod. Nat. Resources	76.1	81.3	83.3
Climate Change	69.5	73.8	75.8
Environmental Health	98.8	99.0	98.1

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	25.41143	*20*	95.4
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	6.4	*85*	99.7
OZONE_E	Regional Ozone (tons SO_2 / populated land)	891,092.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	41.9	*0*	0.6
WATQI	Water Quality (GEMS Water Quality Index score)	75.7	*100*	59.6
WATSTR	Water Stress (%)	49.8	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	9.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.2	*10*	11.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	94.9
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	8.2	*0*	87.1
BURNED	Burned Land Area (%)	0.2	*0*	98.6
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	13.8	*2.24*	77.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	268.0	*0*	71.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.6	*0.85*	59.7

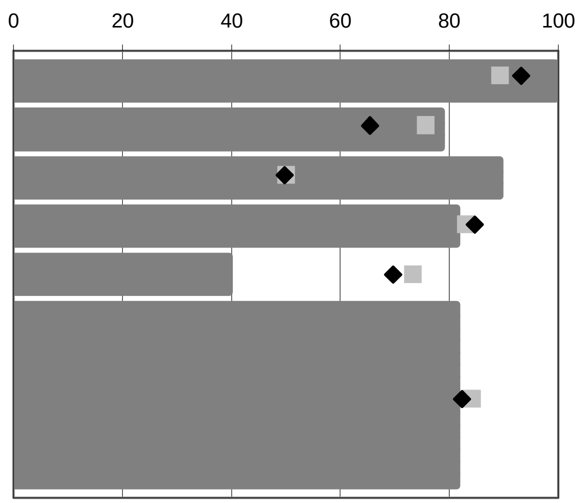
Belize

AMERICAS

GDP/capita 2005 est. (PPP) $6,460
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	84
Score:	71.7
Income Group Avg.	75.9
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.5	93.2	89.3
Water (eco)	78.5	65.4	75.7
Biodiv. and Habitat	89.2	49.7	50.1
Prod. Nat. Resources	81.4	84.7	83.1
Climate Change	39.6	69.7	73.4
Environmental Health	81.3	82.4	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	4.4	*0*	92.1
ACSAT	Adequate Sanitation (%)	47.0	*100*	38.0
WATSUP	Drinking Water (%)	91.0	*100*	84.7
PM10	Urban Particulates (µg/m^3)	18.09223	*20*	100.0
INDOOR	Indoor Air Pollution (%)	43.0	*0*	54.7
OZONE_H	Local Ozone (ppb)	195.4	*85*	89.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	690,736.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	0.4	*0*	99.1
WATQI	Water Quality (GEMS Water Quality Index score)	74.2	*100*	57.1
WATSTR	Water Stress (%)	0.0	*0*	96.7
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.7	*10*	96.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	7.1	*10*	71.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	41.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	83.7
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.1	*0*	99.5
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	54.1	*2.24*	0.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	571.1	*0*	38.4
CO2IND	Industrial Carbon Intensity (CO_2 per \$1000, USD 1995 PPP)	2.2	*0.85*	80.4

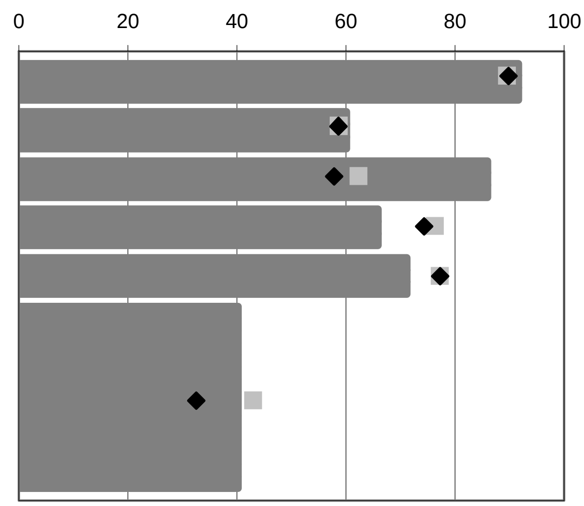
Benin

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,016
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	127
Score:	56.1
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	91.6	89.9	89.6
Water (eco)	60.1	58.7	58.8
Biodiv. and Habitat	86.0	57.8	62.3
Prod. Nat. Resources	65.8	74.4	76.4
Climate Change	71.2	77.3	77.2
Environmental Health	40.2	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	33.0	*0*	40.5
ACSAT	Adequate Sanitation (%)	33.0	*100*	21.6
WATSUP	Drinking Water (%)	67.0	*100*	44.0
PM10	Urban Particulates (µg/m^3)	42.88147	*20*	80.7
INDOOR	Indoor Air Pollution (%)	94.6	*0*	0.4
OZONE_H	Local Ozone (ppb)	500.7	*85*	73.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	66,388,500.5	*3,000*	83.8
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.4
WATQI	Water Quality (GEMS Water Quality Index score)	52.0	*100*	20.1
WATSTR	Water Stress (%)	0.0	*0*	45.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	98.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.9	*10*	98.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.8	*0*	17.8
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	83.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	7.7	*0*	87.9
BURNED	Burned Land Area (%)	5.7	*0*	57.9
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.5	*2.24*	93.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	710.0	*0*	23.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.1	*0.85*	96.3

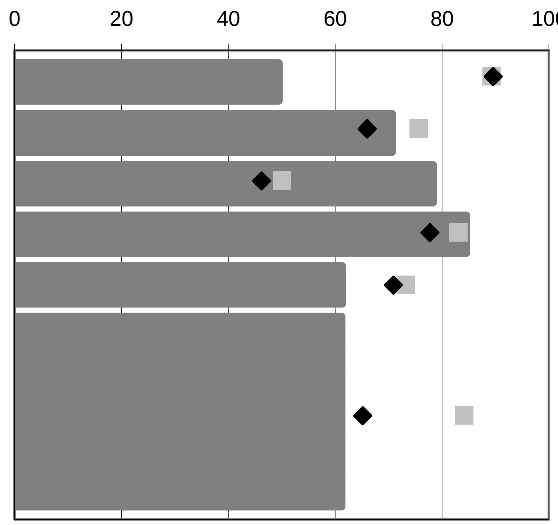
Bolivia

AMERICAS

GDP/capita 2005 est. (PPP) $2,579
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	110
Score:	64.7
Income Group Avg.	66.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	49.4	89.6	89.3
Water (eco)	70.7	66.0	75.7
Biodiv. and Habitat	78.4	46.2	50.1
Prod. Nat. Resources	84.5	77.7	83.1
Climate Change	61.3	70.9	73.4
Environmental Health	61.2	65.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	15.0	*0*	73.0
ACSAT	Adequate Sanitation (%)	46.0	*100*	36.8
WATSUP	Drinking Water (%)	85.0	*100*	74.5
PM10	Urban Particulates (µg/m^3)	86.23189	*20*	44.3
INDOOR	Indoor Air Pollution (%)	34.4	*0*	63.8
OZONE_H	Local Ozone (ppb)	2,509.2	*85*	0.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	430,775,992.3	*3,000*	0.0
SO2	Sulfur Dioxide Emissions (ppb)	0.5	*0*	98.8
WATQI	Water Quality (GEMS Water Quality Index score)	66.2	*100*	43.7
WATSTR	Water Stress (%)	2.1	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.2	*10*	92.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	42.9	*100*	42.9
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	90.2
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	3.2	*0*	76.3
PEST	Pesticide Regulation (points)	4.0	*22*	18.2
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	31.0	*2.24*	44.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	481.0	*0*	48.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.4	*0.85*	91.3

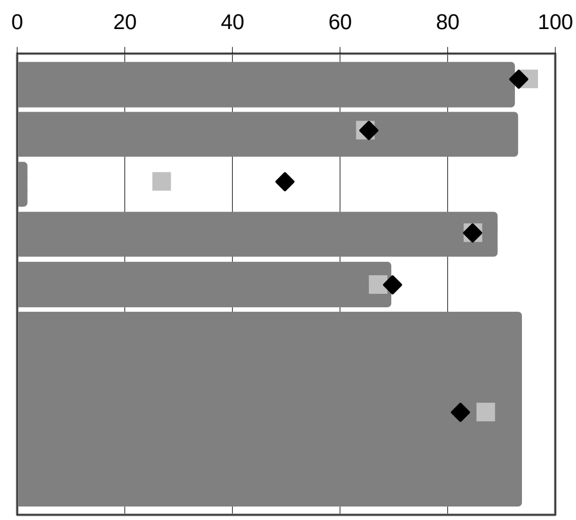
Bosnia and Herzegovina

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $5,600
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	48
Score:	79.7
Income Group Avg.	75.9
Geographic Group Avg.	75.9

Policy Categories



	Country	◆ Income Group	■ Geographic Group
Air Pollution (eco)	91.8	93.2	95.1
Water (eco)	92.4	65.4	64.8
Biodiv. and Habitat	1.2	49.7	26.9
Prod. Nat. Resources	88.6	84.7	84.8
Climate Change	68.9	69.7	67.1
Environmental Health	93.1	82.4	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.3	*0*	99.5
ACSAT	Adequate Sanitation (%)	95.0	*100*	94.2
WATSUP	Drinking Water (%)	97.0	*100*	94.9
PM10	Urban Particulates ($\mu g/m^3$)	19.39574	*20*	100.0
INDOOR	Indoor Air Pollution (%)	49.7	*0*	47.7
OZONE_H	Local Ozone (ppb)	4.0	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	246,209.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	6.9	*0*	83.7
WATQI	Water Quality (GEMS Water Quality Index score)	90.9	*100*	84.8
WATSTR	Water Stress (%)	0.0	*0*	99.0
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	1.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	2.0	*0*	96.9
BURNED	Burned Land Area (%)	2.7	*0*	79.9
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.4	*2.24*	93.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	619.0	*0*	33.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.3	*0.85*	79.4

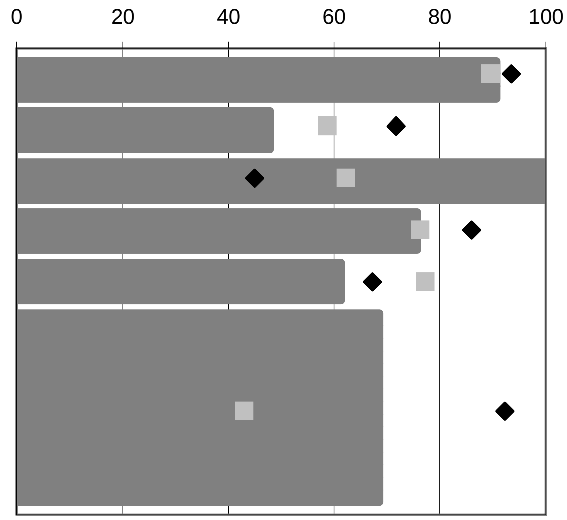
Botswana

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $11,313
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	98
Score:	68.7
Income Group Avg.	80.5
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	90.6	93.4	89.6
Water (eco)	47.8	71.7	58.8
Biodiv. and Habitat	100.0	44.9	62.3
Prod. Nat. Resources	75.7	85.9	76.4
Climate Change	61.4	67.3	77.2
Environmental Health	68.6	92.2	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	6.6	*0*	88.1
ACSAT	Adequate Sanitation (%)	42.0	*100*	32.2
WATSUP	Drinking Water (%)	95.0	*100*	91.5
PM10	Urban Particulates (µg/m^3)	68.57693	*20*	59.1
INDOOR	Indoor Air Pollution (%)	65.0	*0*	31.6
OZONE_H	Local Ozone (ppb)	2,415.0	*85*	0.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	71,323,601.9	*3,000*	82.6
SO2	Sulfur Dioxide Emissions (ppb)	0.6	*0*	98.7
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	30.6	*0*	77.5
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	10.0	*10*	100.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	79.2
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	31.6	*0*	62.9
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.8	*0*	94.0
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	10.5	*2.24*	84.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	1,848.0	*0*	0.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

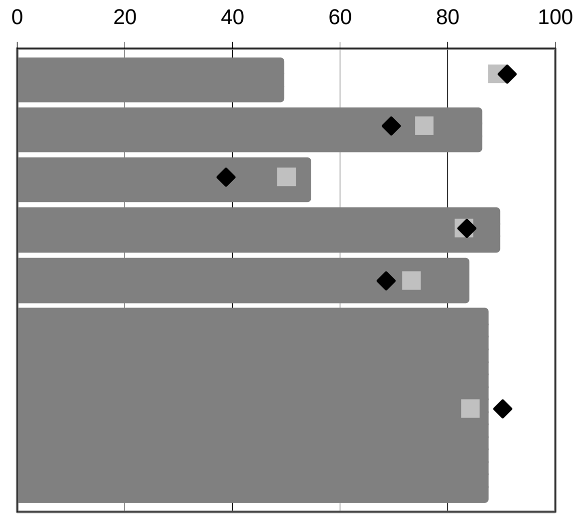
Brazil

AMERICAS

GDP/capita 2005 est. (PPP) $7,826
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	35
Score:	82.7
Income Group Avg.	79.0
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	48.9	91.1	89.3
Water (eco)	85.7	69.6	75.7
Biodiv. and Habitat	53.9	38.9	50.1
Prod. Nat. Resources	89.0	83.6	83.1
Climate Change	83.3	68.6	73.4
Environmental Health	86.9	90.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	3.6	*0*	93.5
ACSAT	Adequate Sanitation (%)	75.0	*100*	70.8
WATSUP	Drinking Water (%)	90.0	*100*	83.0
PM10	Urban Particulates (µg/m^3)	28.05013	*20*	93.2
INDOOR	Indoor Air Pollution (%)	12.9	*0*	86.4
OZONE_H	Local Ozone (ppb)	748.9	*85*	59.6
OZONE_E	Regional Ozone (tons SO_2 / populated land)	2,660,989,9 93.0	*3,000*	0.0
SO2	Sulfur Dioxide Emissions (ppb)	0.9	*0*	97.8
WATQI	Water Quality (GEMS Water Quality Index score)	84.3	*100*	73.9
WATSTR	Water Stress (%)	2.3	*0*	63.2
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	70.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.9	*10*	78.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	32.1	*100*	32.1
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.9	*10*	9.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	81.9
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	79.4
IRRSTR	Irrigation Stress (CIESIN, %)	0.6	*0*	99.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	2.0	*0*	95.8
AGINT	Intensive Cropland (CIESIN, %)	2.0	*0*	96.8
BURNED	Burned Land Area (%)	0.8	*0*	93.9
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	12.1	*2.24*	80.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	84.0	*0*	90.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.4	*0.85*	78.0

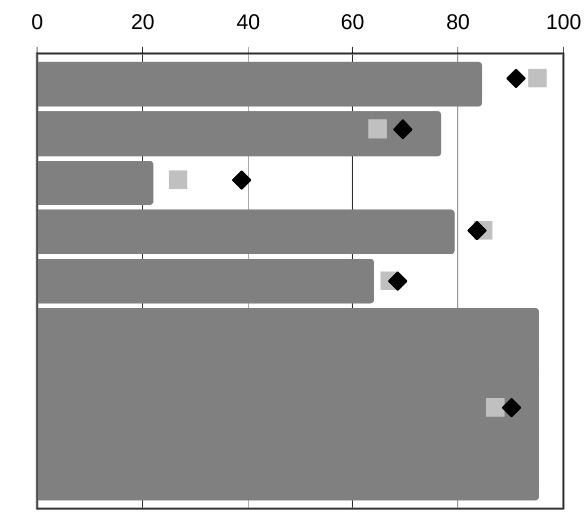
Bulgaria

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $8,754
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	56
Score:	78.5
Income Group Avg.	79.0
Geographic Group Avg.	75.9

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	83.9	91.1	95.1
Water (eco)	76.1	69.6	64.8
Biodiv. and Habitat	21.3	38.9	26.9
Prod. Nat. Resources	78.6	83.6	84.8
Climate Change	63.3	68.6	67.1
Environmental Health	94.7	90.2	87.1

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	99.0	*100*	98.8
WATSUP	Drinking Water (%)	99.0	*100*	98.3
PM10	Urban Particulates ($\mu g/m^3$)	55.28535	*20*	70.3
INDOOR	Indoor Air Pollution (%)	17.0	*0*	82.1
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,308.5	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	13.6	*0*	67.7
WATQI	Water Quality (GEMS Water Quality Index score)	95.4	*100*	92.4
WATSTR	Water Stress (%)	36.5	*0*	88.9
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	26.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.3	*10*	22.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	16.9
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	87.7
IRRSTR	Irrigation Stress (CIESIN, %)	5.1	*0*	94.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	3.0	*0*	93.5
AGINT	Intensive Cropland (CIESIN, %)	18.4	*0*	71.0
BURNED	Burned Land Area (%)	5.5	*0*	59.2
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.1	*2.24*	88.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	448.0	*0*	51.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.3	*0.85*	49.5

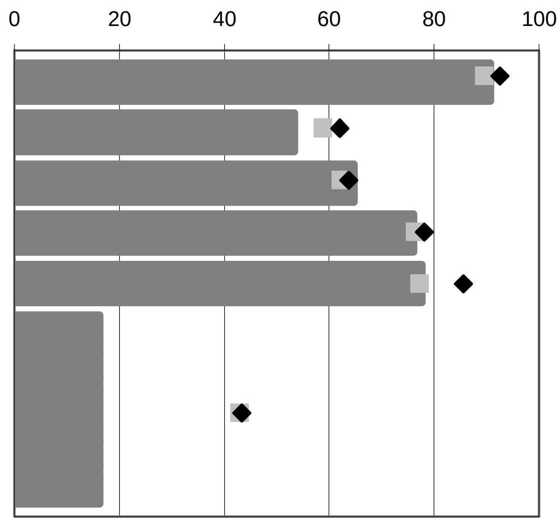
Burkina Faso

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,143
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	144
Score:	44.3
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	◆ *Income Group*	■ *Geographic Group*
Air Pollution (eco)	90.7	92.5	89.6
Water (eco)	53.4	62.0	58.8
Biodiv. and Habitat	64.7	63.8	62.3
Prod. Nat. Resources	76.1	78.1	76.4
Climate Change	77.6	85.5	77.2
Environmental Health	16.2	43.3	43.0

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	51.0	*0*	8.1
ACSAT	Adequate Sanitation (%)	13.0	*100*	0.0
WATSUP	Drinking Water (%)	61.0	*100*	33.8
PM10	Urban Particulates (µg/m^3)	93.70576	*20*	38.0
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	310.2	*85*	83.3
OZONE_E	Regional Ozone (tons SO_2 / populated land)	75,316,398.1	*3,000*	81.6
SO2	Sulfur Dioxide Emissions (ppb)	0.1	*0*	99.8
WATQI	Water Quality (GEMS Water Quality Index score)	52.0	*100*	20.1
WATSTR	Water Stress (%)	12.2	*0*	82.4
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	46.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.3	*10*	83.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	64.5
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	3.4	*0*	96.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.4	*0*	99.3
BURNED	Burned Land Area (%)	2.8	*0*	79.6
PEST	Pesticide Regulation (points)	14.0	*22*	63.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.7	*2.24*	97.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	591.0	*0*	36.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.9	*0.85*	99.3

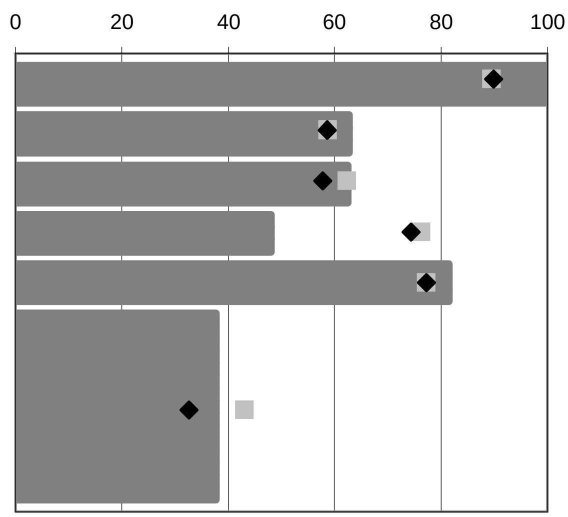
Burundi

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $630
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	132
Score:	54.7
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.5	89.9	89.6
Water (eco)	62.8	58.7	58.8
Biodiv. and Habitat	62.5	57.8	62.3
Prod. Nat. Resources	48.0	74.4	76.4
Climate Change	81.5	77.3	77.2
Environmental Health	37.6	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	41.0	*0*	26.1
ACSAT	Adequate Sanitation (%)	36.0	*100*	25.1
WATSUP	Drinking Water (%)	79.0	*100*	64.3
PM10	Urban Particulates (µg/m^3)	38.91538	*20*	84.1
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	11.6	*85*	99.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,463,600.0	*3,000*	99.6
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.3
WATQI	Water Quality (GEMS Water Quality Index score)	55.3	*100*	25.6
WATSTR	Water Stress (%)	0.0	*0*	63.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	84.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.1	*10*	40.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.6	*0*	-0.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	5.1	*0*	92.0
BURNED	Burned Land Area (%)	1.7	*0*	87.7
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.3	*2.24*	94.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	459.0	*0*	50.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

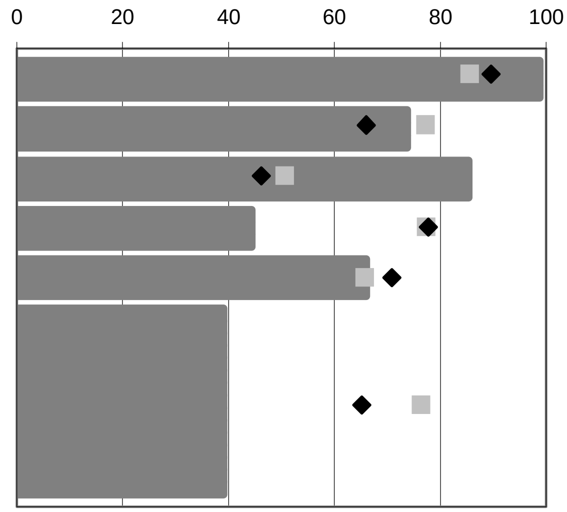
Cambodia

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $2,629
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	136
Score:	53.8
Income Group Avg.	66.8
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.8	89.6	85.6
Water (eco)	73.7	66.0	77.3
Biodiv. and Habitat	85.4	46.2	50.7
Prod. Nat. Resources	44.4	77.7	77.4
Climate Change	66.0	70.9	65.8
Environmental Health	39.1	65.2	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	25.0	*0*	54.9
ACSAT	Adequate Sanitation (%)	17.0	*100*	2.9
WATSUP	Drinking Water (%)	41.0	*100*	0.0
PM10	Urban Particulates (µg/m^3)	63.59899	*20*	63.3
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	27.6	*85*	98.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	7,370,949.8	*3,000*	98.2
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.5
WATQI	Water Quality (GEMS Water Quality Index score)	68.4	*100*	47.4
WATSTR	Water Stress (%)	0.0	*0*	54.1
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	10.0	*10*	100.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.9	*10*	9.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	56.1
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	7.4	*0*	88.3
BURNED	Burned Land Area (%)	1.7	*0*	87.8
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.3	*2.24*	97.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	1,206.0	*0*	0.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.1	*0.85*	100.0

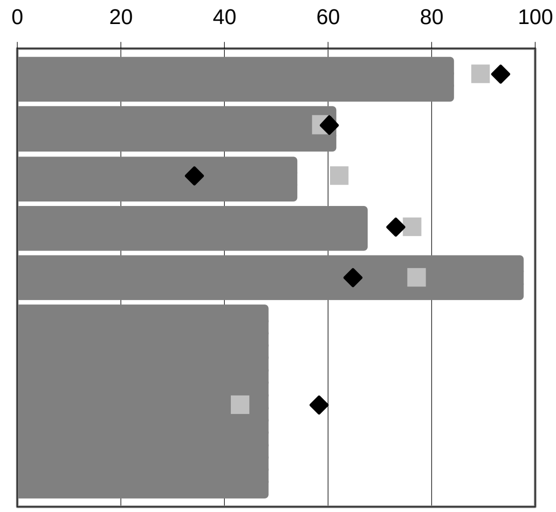
Cameroon

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $2,079
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	114
Score:	63.8
Income Group Avg.	60.2
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	83.6	93.3	89.6
Water (eco)	60.9	60.3	58.8
Biodiv. and Habitat	53.4	34.2	62.3
Prod. Nat. Resources	66.9	73.1	76.4
Climate Change	97.0	64.8	77.2
Environmental Health	47.7	58.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	27.0	*0*	51.3
ACSAT	Adequate Sanitation (%)	51.0	*100*	42.7
WATSUP	Drinking Water (%)	66.0	*100*	42.3
PM10	Urban Particulates (µg/m^3)	64.31561	*20*	62.7
INDOOR	Indoor Air Pollution (%)	82.8	*0*	12.8
OZONE_H	Local Ozone (ppb)	412.7	*85*	77.7
OZONE_E	Regional Ozone (tons SO_2 / populated land)	130,496,000.0	*3,000*	68.2
SO2	Sulfur Dioxide Emissions (ppb)	0.4	*0*	99.0
WATQI	Water Quality (GEMS Water Quality Index score)	53.0	*100*	21.8
WATSTR	Water Stress (%)	0.0	*0*	84.7
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	82.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.2	*10*	61.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	14.3	*100*	14.3
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	78.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	95.4
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.9	*0*	9.4
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	12.8	*0*	79.8
BURNED	Burned Land Area (%)	5.4	*0*	60.5
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.7	*2.24*	95.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	39.0	*0*	95.8
CO2IND	Industrial Carbon Intensity (CO_2 per \$1000, USD 1995 PPP)	0.2	*0.85*	100.0

Canada

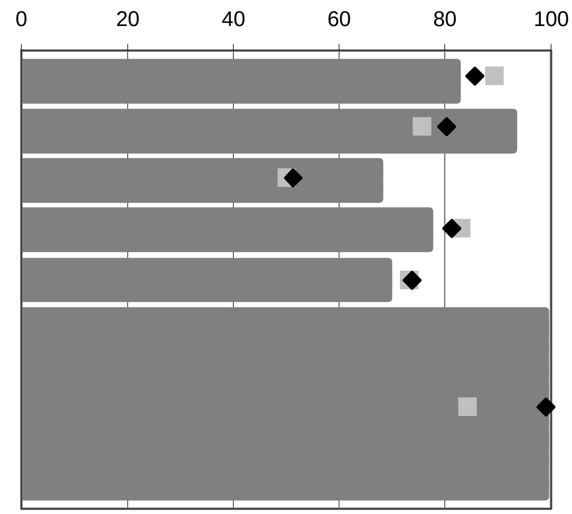
AMERICAS

GDP/capita 2005 est. (PPP) $30,278
Income Decile 1 (1=high, 10=low)

2008 EPI

Rank:	12
Score:	86.6
Income Group Avg.	86.0
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	82.2	85.6	89.3
Water (eco)	92.9	80.3	75.7
Biodiv. and Habitat	67.6	51.4	50.1
Prod. Nat. Resources	77.0	81.3	83.1
Climate Change	69.3	73.8	73.4
Environmental Health	98.9	99.0	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	19.08725	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	152.1	*85*	91.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	65,561,497.6	*3,000*	84.0
SO2	Sulfur Dioxide Emissions (ppb)	8.3	*0*	80.5
WATQI	Water Quality (GEMS Water Quality Index score)	92.5	*100*	87.6
WATSTR	Water Stress (%)	1.7	*0*	90.3
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	92.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.3	*10*	72.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	75.0	*100*	75.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.5	*10*	5.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	33.8
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	67.5
IRRSTR	Irrigation Stress (CIESIN, %)	1.4	*0*	98.4
AGSUB	Agricultural Subsidies (% border agricultural prices)	21.0	*0*	55.0
AGINT	Intensive Cropland (CIESIN, %)	25.6	*0*	59.6
BURNED	Burned Land Area (%)	1.5	*0*	89.0
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	23.1	*2.24*	59.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	199.0	*0*	78.5
CO2IND	Industrial Carbon Intensity (CO_2 per \$1000, USD 1995 PPP)	2.9	*0.85*	69.7

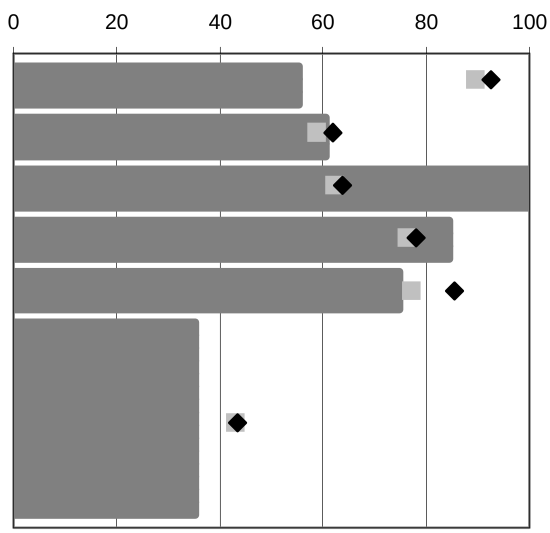
Central African Republic

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,112
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	128
Score:	56.0
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	55.4	92.5	89.6
Water (eco)	60.6	62.0	58.8
Biodiv. and Habitat	100.0	63.8	62.3
Prod. Nat. Resources	84.5	78.1	76.4
Climate Change	74.8	85.5	77.2
Environmental Health	35.2	43.3	43.0

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	35.0	*0*	36.9
ACSAT	Adequate Sanitation (%)	27.0	*100*	14.6
WATSUP	Drinking Water (%)	75.0	*100*	57.6
PM10	Urban Particulates (µg/m^3)	47.63424	*20*	76.8
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	4,524.8	*85*	0.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	358,935,019.5	*3,000*	12.5
SO2	Sulfur Dioxide Emissions (ppb)	0.7	*0*	98.3
WATQI	Water Quality (GEMS Water Quality Index score)	53.0	*100*	21.8
WATSTR	Water Stress (%)	0.5	*0*	93.8
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	10.0	*10*	100.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	97.2
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	21.4	*0*	0.0
PEST	Pesticide Regulation (points)	13.0	*22*	59.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	14.1	*2.24*	77.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	489.1	*0*	47.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

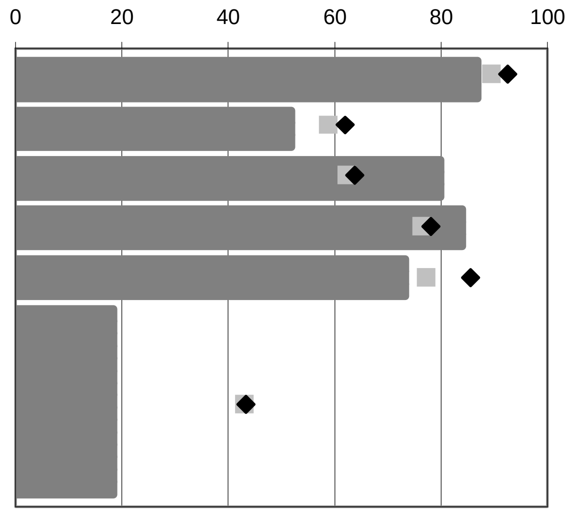
Chad

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,341
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	143
Score:	45.9
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	86.9	92.5	89.6
Water (eco)	51.8	62.0	58.8
Biodiv. and Habitat	79.9	63.8	62.3
Prod. Nat. Resources	84.0	78.1	76.4
Climate Change	73.3	85.5	77.2
Environmental Health	18.4	43.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	40.0	*0*	27.9
ACSAT	Adequate Sanitation (%)	9.0	*100*	0.0
WATSUP	Drinking Water (%)	42.0	*100*	1.5
PM10	Urban Particulates ($\mu g/m^3$)	126.7485	*20*	10.2
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	636.9	*85*	65.6
OZONE_E	Regional Ozone (tons SO_2 / populated land)	106,339,00 0.3	*3,000*	74.1
SO2	Sulfur Dioxide Emissions (ppb)	0.1	*0*	99.7
WATQI	Water Quality (GEMS Water Quality Index score)	53.0	*100*	21.8
WATSTR	Water Stress (%)	16.4	*0*	85.1
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	86.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.3	*10*	73.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	86.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	11.2	*0*	86.9
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	4.5	*0*	66.9
PEST	Pesticide Regulation (points)	12.0	*22*	54.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	7.6	*2.24*	89.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	648.6	*0*	30.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.7	*0.85*	100.0

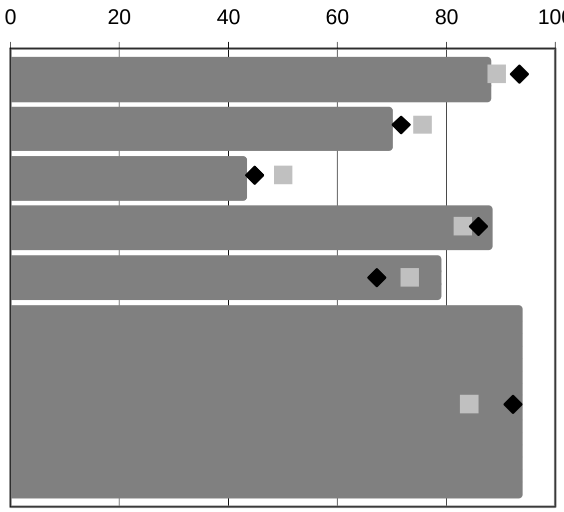
Chile

AMERICAS

GDP/capita 2005 est. (PPP) $10,939
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	29
Score:	83.4
Income Group Avg.	80.5
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	87.6	93.4	89.3
Water (eco)	69.5	71.7	75.7
Biodiv. and Habitat	42.7	44.9	50.1
Prod. Nat. Resources	87.8	85.9	83.1
Climate Change	78.4	67.3	73.4
Environmental Health	93.3	92.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	91.0	*100*	89.5
WATSUP	Drinking Water (%)	95.0	*100*	91.5
PM10	Urban Particulates (µg/m^3)	54.44314	*20*	71.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	153.1	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	10.5	*0*	75.2
WATQI	Water Quality (GEMS Water Quality Index score)	74.3	*100*	57.3
WATSTR	Water Stress (%)	16.5	*0*	90.7
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	80.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.2	*10*	61.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	28.6	*100*	28.6
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	50.7
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	87.2
IRRSTR	Irrigation Stress (CIESIN, %)	1.0	*0*	98.8
AGSUB	Agricultural Subsidies (% border agricultural prices)	6.3	*0*	86.5
AGINT	Intensive Cropland (CIESIN, %)	0.4	*0*	99.4
BURNED	Burned Land Area (%)	1.8	*0*	86.9
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	6.1	*2.24*	92.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	357.0	*0*	61.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.1	*0.85*	81.3

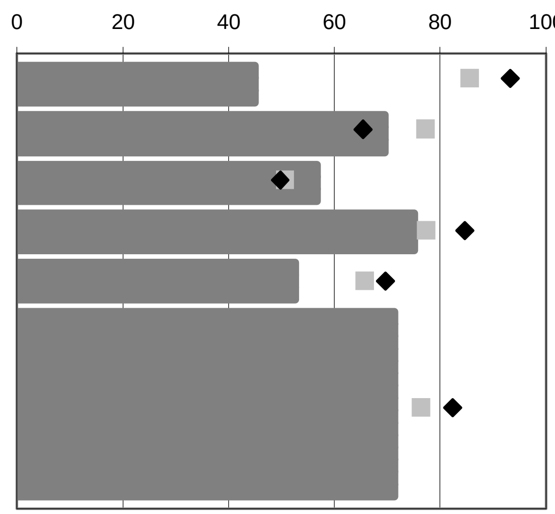
China

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $6,621
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	105
Score:	65.1
Income Group Avg.	75.9
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	44.9	93.2	85.6
Water (eco)	69.6	65.4	77.3
Biodiv. and Habitat	56.7	49.7	50.7
Prod. Nat. Resources	75.2	84.7	77.4
Climate Change	52.7	69.7	65.8
Environmental Health	71.4	82.4	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	3.0	*0*	94.6
ACSAT	Adequate Sanitation (%)	44.0	*100*	34.5
WATSUP	Drinking Water (%)	77.0	*100*	61.0
PM10	Urban Particulates (µg/m^3)	72.17892	*20*	56.1
INDOOR	Indoor Air Pollution (%)	80.0	*0*	15.8
OZONE_H	Local Ozone (ppb)	18.0	*85*	99.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	397,710,008.3	*3,000*	3.0
SO2	Sulfur Dioxide Emissions (ppb)	5.6	*0*	86.8
WATQI	Water Quality (GEMS Water Quality Index score)	76.4	*100*	60.7
WATSTR	Water Stress (%)	19.6	*0*	96.7
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	74.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.5	*10*	65.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	45.7	*100*	45.7
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.3	*10*	3.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	74.9
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.9	*0*	13.1
IRRSTR	Irrigation Stress (CIESIN, %)	16.1	*0*	81.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.9	*0*	98.1
AGINT	Intensive Cropland (CIESIN, %)	10.7	*0*	83.2
BURNED	Burned Land Area (%)	1.9	*0*	86.0
PEST	Pesticide Regulation (points)	13.0	*22*	59.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.7	*2.24*	93.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	788.0	*0*	15.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.3	*0.85*	49.7

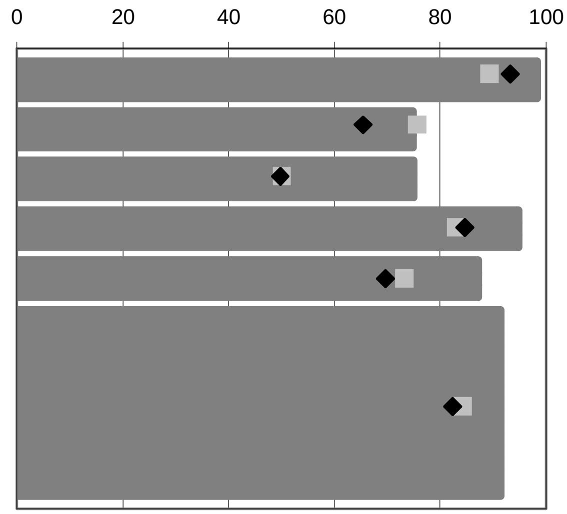
Colombia

AMERICAS

GDP/capita 2005 est. (PPP) $6,886
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	9
Score:	88.3
Income Group Avg.	75.9
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.3	93.2	89.3
Water (eco)	74.9	65.4	75.7
Biodiv. and Habitat	75.0	49.7	50.1
Prod. Nat. Resources	94.8	84.7	83.1
Climate Change	87.1	69.7	73.4
Environmental Health	91.4	82.4	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	3.0	*0*	94.6
ACSAT	Adequate Sanitation (%)	86.0	*100*	83.6
WATSUP	Drinking Water (%)	93.0	*100*	88.1
PM10	Urban Particulates (µg/m^3)	23.23212	*20*	97.3
INDOOR	Indoor Air Pollution (%)	19.5	*0*	79.5
OZONE_H	Local Ozone (ppb)	10.2	*85*	99.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	8,956,229.8	*3,000*	97.8
SO2	Sulfur Dioxide Emissions (ppb)	0.5	*0*	98.8
WATQI	Water Quality (GEMS Water Quality Index score)	71.7	*100*	53.0
WATSTR	Water Stress (%)	2.8	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	93.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.4	*10*	94.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	37.2	*100*	37.2
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	7.5	*10*	75.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	99.0
IRRSTR	Irrigation Stress (CIESIN, %)	2.7	*0*	96.8
AGSUB	Agricultural Subsidies (% border agricultural prices)	22.0	*0*	52.8
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	99.9
BURNED	Burned Land Area (%)	1.1	*0*	91.6
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.3	*2.24*	94.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	163.0	*0*	82.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.9	*0.85*	85.0

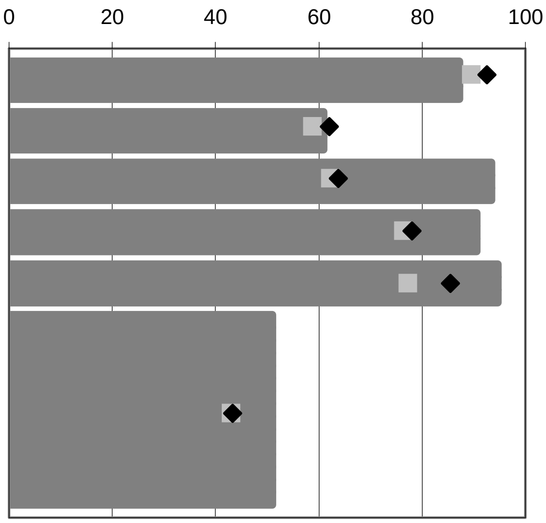
Congo

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,159
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	93
Score:	69.7
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	87.3	92.5	89.6
Water (eco)	60.9	62.0	58.8
Biodiv. and Habitat	93.4	63.8	62.3
Prod. Nat. Resources	90.5	78.1	76.4
Climate Change	94.6	85.5	77.2
Environmental Health	51.0	43.3	43.0

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	13.0	*0*	76.6
ACSAT	Adequate Sanitation (%)	27.0	*100*	14.6
WATSUP	Drinking Water (%)	58.0	*100*	28.7
PM10	Urban Particulates (μg/m^3)	85.38769	*20*	45.0
INDOOR	Indoor Air Pollution (%)	85.0	*0*	10.5
OZONE_H	Local Ozone (ppb)	1,208.3	*85*	34.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	81,000,801.3	*3,000*	80.2
SO2	Sulfur Dioxide Emissions (ppb)	2.4	*0*	94.3
WATQI	Water Quality (GEMS Water Quality Index score)	53.0	*100*	21.8
WATSTR	Water Stress (%)	0.0	*0*	98.5
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.5	*10*	94.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.8	*10*	8.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	98.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	83.6
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.4	*0*	64.6
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.6	*0*	95.7
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	10.6	*2.24*	83.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	0.0	*0*	100.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.1	*0.85*	100.0

Costa Rica

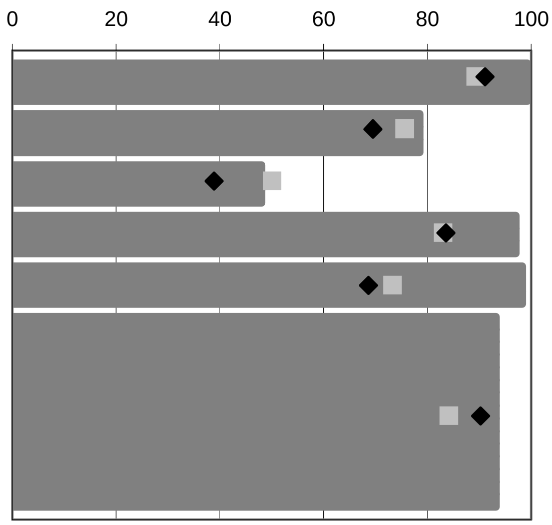
AMERICAS

GDP/capita 2005 est. (PPP) $9,647
Income Decile 4 (1=high, 10=low)

2008 EPI

Rank:	5
Score:	90.5
Income Group Avg.	79.0
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.3	91.1	89.3
Water (eco)	78.5	69.6	75.7
Biodiv. and Habitat	48.0	38.9	50.1
Prod. Nat. Resources	97.1	83.6	83.1
Climate Change	98.3	68.6	73.4
Environmental Health	93.2	90.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	92.0	*100*	90.6
WATSUP	Drinking Water (%)	97.0	*100*	94.9
PM10	Urban Particulates (µg/m^3)	39.29948	*20*	83.8
INDOOR	Indoor Air Pollution (%)	23.0	*0*	75.8
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.6	*0*	98.6
WATQI	Water Quality (GEMS Water Quality Index score)	74.2	*100*	57.1
WATSTR	Water Stress (%)	0.0	*0*	94.9
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	95.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.6	*10*	15.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	75.0	*100*	75.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.6	*10*	6.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	98.2
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	2.4	*0*	94.8
AGINT	Intensive Cropland (CIESIN, %)	4.1	*0*	93.6
BURNED	Burned Land Area (%)	0.1	*0*	99.0
PEST	Pesticide Regulation (points)	16.0	*22*	72.7
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.4	*2.24*	97.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	27.0	*0*	97.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.6	*0.85*	100.0

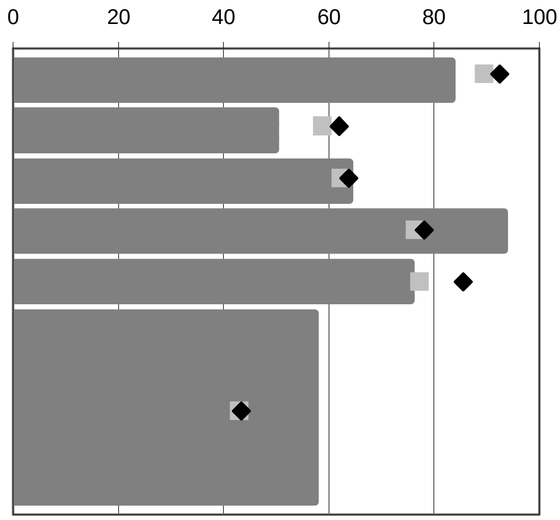
Côte d'Ivoire

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,471
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	103
Score:	65.2
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	83.4	92.5	89.6
Water (eco)	49.8	62.0	58.8
Biodiv. and Habitat	63.9	63.8	62.3
Prod. Nat. Resources	93.3	78.1	76.4
Climate Change	75.6	85.5	77.2
Environmental Health	57.4	43.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	29.0	*0*	47.7
ACSAT	Adequate Sanitation (%)	37.0	*100*	26.3
WATSUP	Drinking Water (%)	84.0	*100*	72.8
PM10	Urban Particulates (µg/m^3)	38.33584	*20*	84.6
INDOOR	Indoor Air Pollution (%)	12.3	*0*	87.1
OZONE_H	Local Ozone (ppb)	392.1	*85*	78.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	132,394,997.8	*3,000*	67.7
SO2	Sulfur Dioxide Emissions (ppb)	0.4	*0*	99.1
WATQI	Water Quality (GEMS Water Quality Index score)	40.9	*100*	1.7
WATSTR	Water Stress (%)	1.8	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	82.2
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.5	*10*	94.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	50.0	*100*	50.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	82.4
IRRSTR	Irrigation Stress (CIESIN, %)	0.2	*0*	99.8
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	1.1	*0*	98.3
BURNED	Burned Land Area (%)	4.3	*0*	68.2
PEST	Pesticide Regulation (points)	17.0	*22*	77.3
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	9.6	*2.24*	85.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	518.0	*0*	44.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.1	*0.85*	96.9

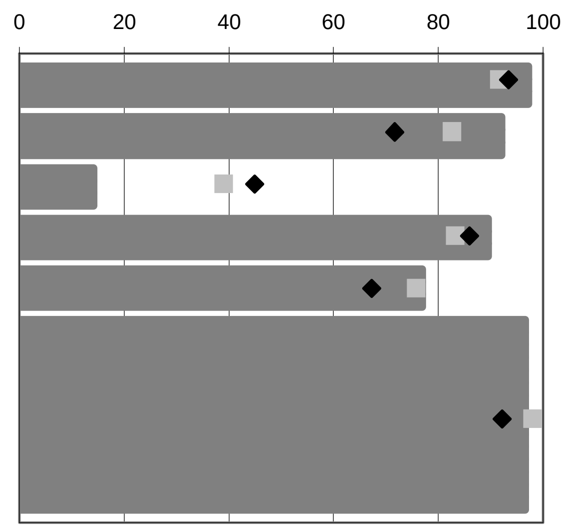
Croatia

EUROPE

GDP/capita 2005 est. (PPP) $12,164
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	20
Score:	84.6
Income Group Avg.	80.5
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.2	93.4	91.7
Water (eco)	92.0	71.7	82.7
Biodiv. and Habitat	14.1	44.9	39.1
Prod. Nat. Resources	89.5	85.9	83.3
Climate Change	76.9	67.3	75.8
Environmental Health	96.6	92.2	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	31.05139	*20*	90.7
INDOOR	Indoor Air Pollution (%)	21.0	*0*	77.9
OZONE_H	Local Ozone (ppb)	21.8	*85*	98.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,131,530.0	*3,000*	99.7
SO2	Sulfur Dioxide Emissions (ppb)	2.2	*0*	94.7
WATQI	Water Quality (GEMS Water Quality Index score)	90.4	*100*	84.1
WATSTR	Water Stress (%)	0.0	*0*	59.7
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	19.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.8	*10*	7.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.5	*10*	15.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.4	*0*	61.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	19.1	*0*	69.9
BURNED	Burned Land Area (%)	2.9	*0*	78.5
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	7.0	*2.24*	90.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	311.0	*0*	66.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.7	*0.85*	73.6

Cuba

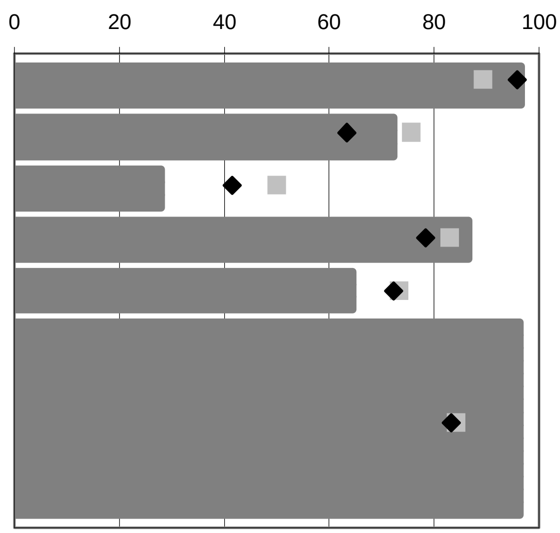
AMERICAS

GDP/capita 2005 est. (PPP) $4,100
Income Decile 6 (1=high, 10=low)

2008 EPI

Rank:	41
Score:	80.7
Income Group Avg.	75.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.6	95.8	89.3
Water (eco)	72.2	63.4	75.7
Biodiv. and Habitat	28.0	41.5	50.1
Prod. Nat. Resources	86.6	78.4	83.1
Climate Change	64.5	72.3	73.4
Environmental Health	96.4	83.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	98.0	*100*	97.7
WATSUP	Drinking Water (%)	91.0	*100*	84.7
PM10	Urban Particulates ($\mu g/m^3$)	19.10985	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	1.1	*85*	99.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	194,058.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	2.9	*0*	93.2
WATQI	Water Quality (GEMS Water Quality Index score)	85.6	*100*	76.1
WATSTR	Water Stress (%)	28.7	*0*	78.4
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	34.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.5	*10*	24.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	47.2	*100*	47.2
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.6	*10*	6.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.2	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	68.7
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	88.6
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	34.2	*0*	46.0
BURNED	Burned Land Area (%)	0.6	*0*	95.5
PEST	Pesticide Regulation (points)	14.0	*22*	63.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.6	*2.24*	95.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	987.0	*0*	0.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.0	*0.85*	98.1

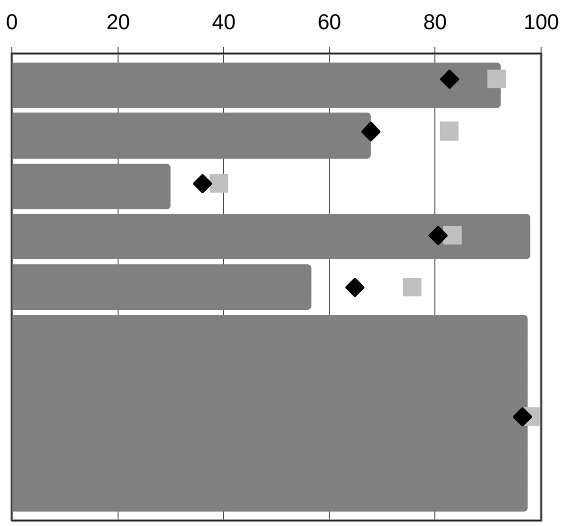
Cyprus

EUROPE

GDP/capita 2005 est. (PPP) $20,203
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	52
Score:	79.2
Income Group Avg.	80.4
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	91.6	82.8	91.7
Water (eco)	67.2	67.9	82.7
Biodiv. and Habitat	29.3	36.0	39.1
Prod. Nat. Resources	97.3	80.5	83.3
Climate Change	56.0	64.8	75.8
Environmental Health	96.8	96.5	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.5	*0*	99.1
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	46.9857	*20*	77.3
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	7.1	*0*	83.3
WATQI	Water Quality (GEMS Water Quality Index score)	60.5	*100*	34.4
WATSTR	Water Stress (%)	0.0	*0*	16.9
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	65.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.2	*10*	22.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	93.8
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	95.3
IRRSTR	Irrigation Stress (CIESIN, %)		*0*	
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.6	*0*	95.7
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.8	*2.24*	81.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	792.0	*0*	14.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.8	*0.85*	71.7

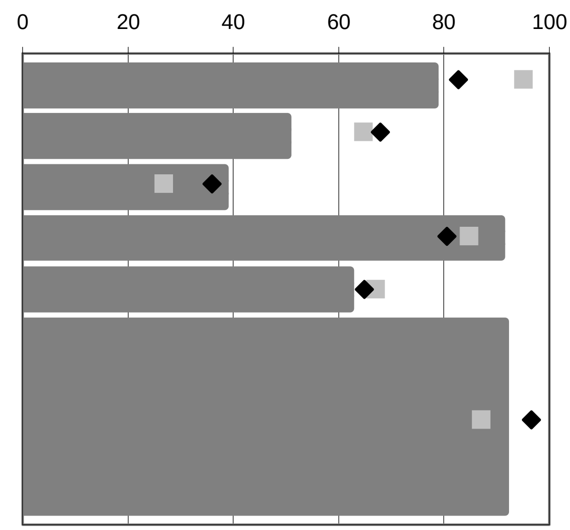
Czech Rep.

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $19,700
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	68
Score:	76.8
Income Group Avg.	80.4
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	78.3	82.8	95.1
Water (eco)	50.2	67.9	64.8
Biodiv. and Habitat	38.4	36.0	26.9
Prod. Nat. Resources	90.9	80.5	84.8
Climate Change	62.3	64.8	67.1
Environmental Health	91.6	96.5	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	98.0	*100*	97.7
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	22.98634	*20*	97.5
INDOOR	Indoor Air Pollution (%)	73.7	*0*	22.4
OZONE_H	Local Ozone (ppb)	1.1	*85*	99.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	155,901.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	18.3	*0*	56.6
WATQI	Water Quality (GEMS Water Quality Index score)	41.9	*100*	3.3
WATSTR	Water Stress (%)	2.6	*0*	97.2
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	49.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.7	*10*	27.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	18.0	*0*	61.4
AGINT	Intensive Cropland (CIESIN, %)	28.6	*0*	54.7
BURNED	Burned Land Area (%)	0.9	*0*	93.3
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	14.3	*2.24*	76.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	516.0	*0*	44.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.2	*0.85*	65.7

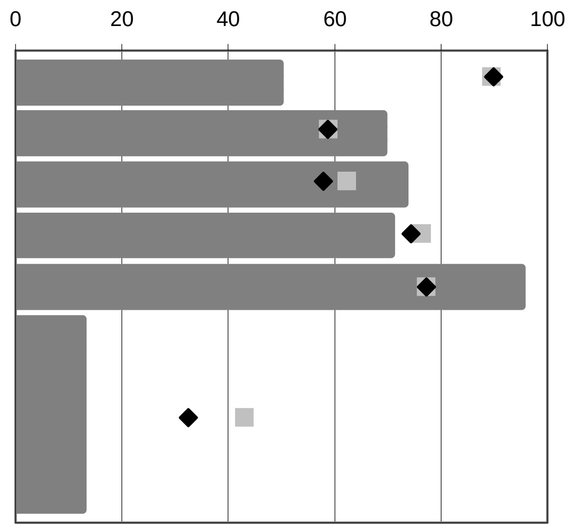
Dem. Rep. Congo

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $700
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	142
Score:	47.3
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	49.7	89.9	89.6
Water (eco)	69.2	58.7	58.8
Biodiv. and Habitat	73.2	57.8	62.3
Prod. Nat. Resources	70.6	74.4	76.4
Climate Change	95.2	77.3	77.2
Environmental Health	12.6	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	64.0	*0*	0.0
ACSAT	Adequate Sanitation (%)	30.0	*100*	18.1
WATSUP	Drinking Water (%)	46.0	*100*	8.3
PM10	Urban Particulates (µg/m^3)	52.48525	*20*	72.7
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	1,094.6	*85*	40.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,182,560,0 10.2	*3,000*	0.0
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.5
WATQI	Water Quality (GEMS Water Quality Index score)	63.0	*100*	38.5
WATSTR	Water Stress (%)	0.0	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.6	*10*	86.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	33.3	*100*	33.3
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	94.8
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	5.6
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	86.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.1	*0*	99.9
BURNED	Burned Land Area (%)	8.1	*0*	40.3
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	9.5	*2.24*	85.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	3.0	*0*	99.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

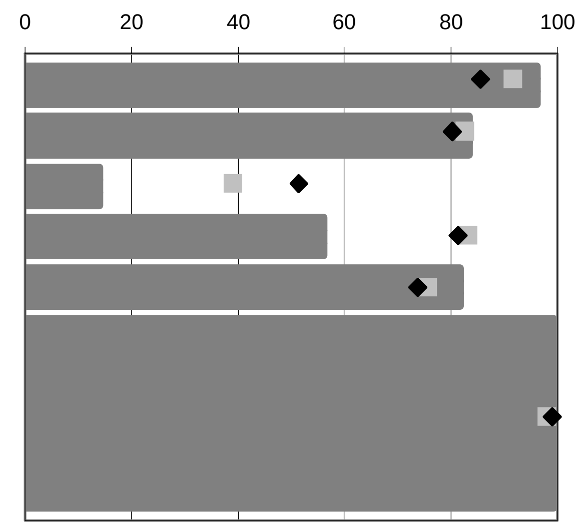
Denmark

EUROPE

GDP/capita 2005 est. (PPP) $31,423
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	25
Score:	84.0
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.1	85.6	91.7
Water (eco)	83.4	80.3	82.7
Biodiv. and Habitat	13.9	51.4	39.1
Prod. Nat. Resources	56.1	81.3	83.3
Climate Change	81.8	73.8	75.8
Environmental Health	99.3	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	20.01739	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	4.5	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	206,460.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	3.3	*0*	92.3
WATQI	Water Quality (GEMS Water Quality Index score)	81.5	*100*	69.2
WATSTR	Water Stress (%)	2.3	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	9.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.1	*10*	1.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	3.1	*10*	31.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	1.8
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.9	*0*	5.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	63.4	*0*	0.0
BURNED	Burned Land Area (%)	0.1	*0*	99.6
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.7	*2.24*	81.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	284.0	*0*	69.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.3	*0.85*	94.1

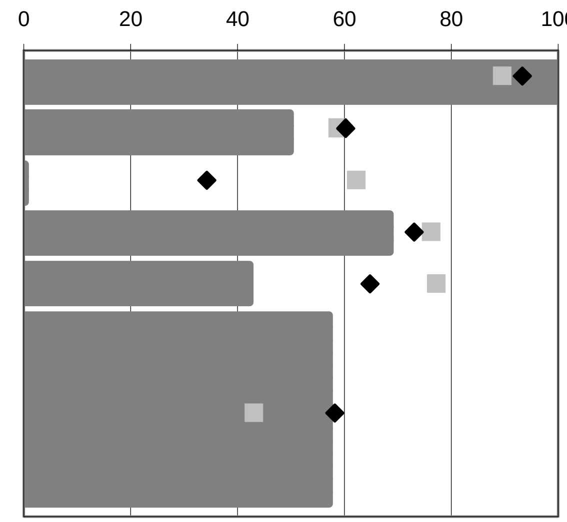
Djibouti

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,982
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	139
Score:	50.5
Income Group Avg.	60.2
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.8	93.3	89.6
Water (eco)	49.8	60.3	58.8
Biodiv. and Habitat	0.2	34.2	62.3
Prod. Nat. Resources	68.5	73.1	76.4
Climate Change	42.3	64.8	77.2
Environmental Health	57.2	58.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	35.0	*0*	36.9
ACSAT	Adequate Sanitation (%)	82.0	*100*	78.9
WATSUP	Drinking Water (%)	73.0	*100*	54.2
PM10	Urban Particulates (µg/m^3)	48.31133	*20*	76.2
INDOOR	Indoor Air Pollution (%)	5.3	*0*	94.4
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.1	*0*	99.7
WATQI	Water Quality (GEMS Water Quality Index score)	55.3	*100*	25.6
WATSTR	Water Stress (%)	23.6	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	0.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.8	*0*	23.9
IRRSTR	Irrigation Stress (CIESIN, %)	46.0	*0*	46.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	1.4	*0*	89.5
PEST	Pesticide Regulation (points)	16.0	*22*	72.7
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	50.9	*2.24*	6.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	648.6	*0*	30.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.5	*0.85*	90.5

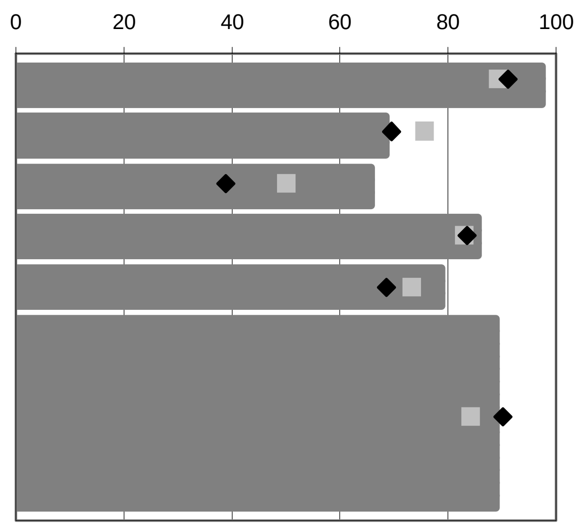
Dominican Rep.

AMERICAS

GDP/capita 2005 est. (PPP) $7,618
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	33
Score:	83.0
Income Group Avg.	79.0
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.4	91.1	89.3
Water (eco)	68.5	69.6	75.7
Biodiv. and Habitat	65.7	38.9	50.1
Prod. Nat. Resources	85.5	83.6	83.1
Climate Change	78.7	68.6	73.4
Environmental Health	88.8	90.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	5.0	*0*	91.0
ACSAT	Adequate Sanitation (%)	78.0	*100*	74.3
WATSUP	Drinking Water (%)	95.0	*100*	91.5
PM10	Urban Particulates (µg/m^3)	29.55943	*20*	92.0
INDOOR	Indoor Air Pollution (%)	15.1	*0*	84.1
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	2.2	*0*	94.8
WATQI	Water Quality (GEMS Water Quality Index score)	75.6	*100*	59.4
WATSTR	Water Stress (%)	20.4	*0*	97.5
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	53.2
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.6	*10*	26.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	83.3	*100*	83.3
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	46.6
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	83.0
IRRSTR	Irrigation Stress (CIESIN, %)	11.5	*0*	86.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	13.8	*0*	78.2
BURNED	Burned Land Area (%)	0.3	*0*	98.2
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.2	*2.24*	98.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	574.0	*0*	38.1
CO2IND	Industrial Carbon Intensity (CO_2 per \$1000, USD 1995 PPP)	0.8	*0.85*	100.0

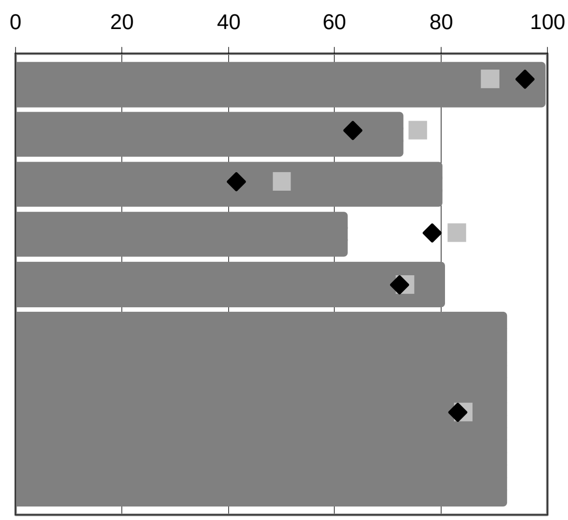
Ecuador

AMERICAS

GDP/capita 2005 est. (PPP) $3,982
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	22
Score:	84.4
Income Group Avg.	75.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.9	95.8	89.3
Water (eco)	72.2	63.4	75.7
Biodiv. and Habitat	79.6	41.5	50.1
Prod. Nat. Resources	61.8	78.4	83.1
Climate Change	80.1	72.3	73.4
Environmental Health	91.7	83.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	5.0	*0*	91.0
ACSAT	Adequate Sanitation (%)	89.0	*100*	87.1
WATSUP	Drinking Water (%)	94.0	*100*	89.8
PM10	Urban Particulates (µg/m^3)	24.88723	*20*	95.9
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.9	*0*	97.8
WATQI	Water Quality (GEMS Water Quality Index score)	79.3	*100*	65.6
WATSTR	Water Stress (%)	19.2	*0*	68.4
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	90.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.9	*10*	88.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	39.5	*100*	39.5
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	47.2
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	0.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	94.8
IRRSTR	Irrigation Stress (CIESIN, %)	4.7	*0*	94.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	11.0	*0*	76.4
AGINT	Intensive Cropland (CIESIN, %)	1.0	*0*	98.4
BURNED	Burned Land Area (%)	0.2	*0*	98.6
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.9	*2.24*	94.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	369.0	*0*	60.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.9	*0.85*	85.3

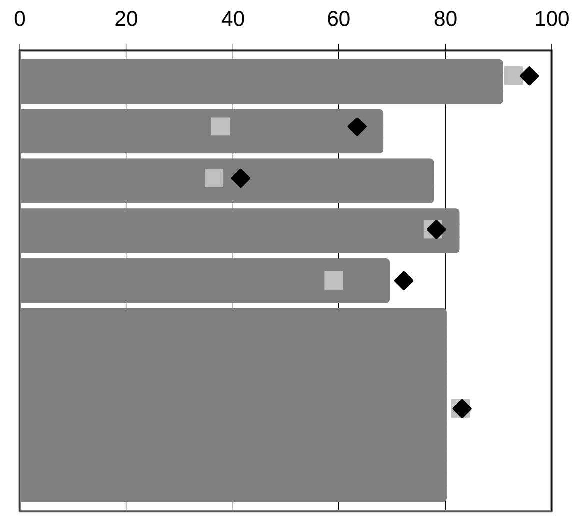
Egypt

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $4,031
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	71
Score:	76.3
Income Group Avg.	75.8
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	90.1	95.8	92.9
Water (eco)	67.6	63.4	37.8
Biodiv. and Habitat	77.2	41.5	36.5
Prod. Nat. Resources	82.0	78.4	77.8
Climate Change	68.9	72.3	59.2
Environmental Health	79.6	83.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	6.0	*0*	89.2
ACSAT	Adequate Sanitation (%)	70.0	*100*	64.9
WATSUP	Drinking Water (%)	98.0	*100*	96.6
PM10	Urban Particulates (µg/m^3)	134.7891	*20*	3.4
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	8.3	*0*	80.3
WATQI	Water Quality (GEMS Water Quality Index score)	78.0	*100*	63.4
WATSTR	Water Stress (%)	25.5	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	93.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.3	*10*	73.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	3.2	*10*	32.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.5	*0*	53.6
IRRSTR	Irrigation Stress (CIESIN, %)	57.5	*0*	32.4
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	45.7	*0*	27.8
BURNED	Burned Land Area (%)	0.0	*0*	99.9
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.3	*2.24*	98.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	471.0	*0*	49.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.6	*0.85*	59.4

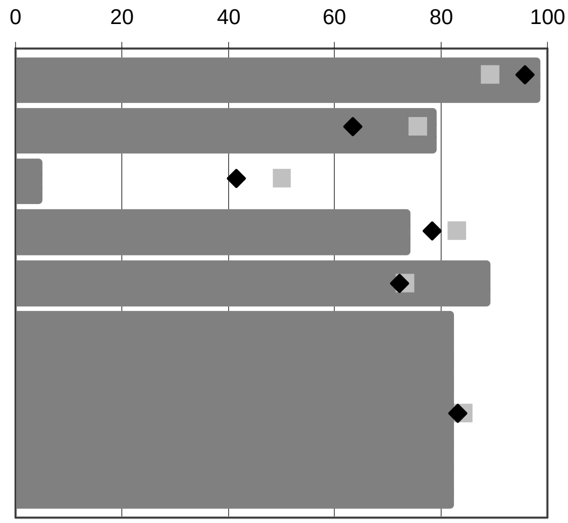
El Salvador

AMERICAS

GDP/capita 2005 est. (PPP) $4,776
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	65
Score:	77.2
Income Group Avg.	75.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.9	95.8	89.3
Water (eco)	78.5	63.4	75.7
Biodiv. and Habitat	4.3	41.5	50.1
Prod. Nat. Resources	73.6	78.4	83.1
Climate Change	88.5	72.3	73.4
Environmental Health	81.8	83.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	5.0	*0*	91.0
ACSAT	Adequate Sanitation (%)	62.0	*100*	55.6
WATSUP	Drinking Water (%)	84.0	*100*	72.8
PM10	Urban Particulates (µg/m^3)	35.49413	*20*	87.0
INDOOR	Indoor Air Pollution (%)	33.0	*0*	65.3
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.8	*0*	95.8
WATQI	Water Quality (GEMS Water Quality Index score)	74.2	*100*	57.1
WATSTR	Water Stress (%)	0.0	*0*	74.1
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	12.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.1	*10*	0.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	47.2
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	76.6
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	31.7	*0*	49.9
BURNED	Burned Land Area (%)	0.2	*0*	98.7
PEST	Pesticide Regulation (points)	17.0	*22*	77.3
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.0	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	263.0	*0*	71.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.3	*0.85*	94.0

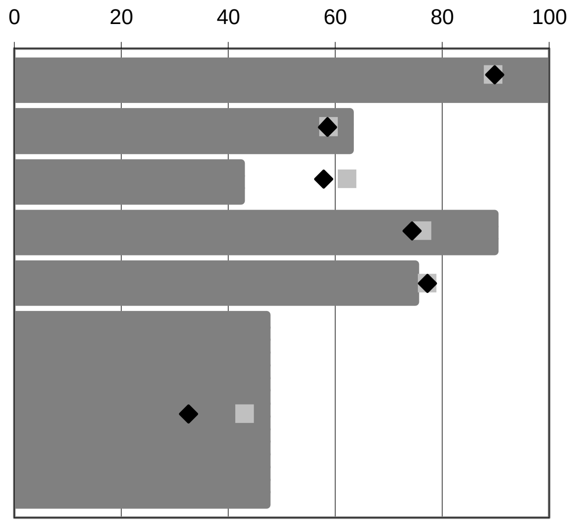
Eritrea

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $947
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	122
Score:	59.4
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	100.0	89.9	89.6
Water (eco)	62.8	58.7	58.8
Biodiv. and Habitat	42.4	57.8	62.3
Prod. Nat. Resources	89.8	74.4	76.4
Climate Change	75.0	77.3	77.2
Environmental Health	47.2	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	20.0	*0*	63.9
ACSAT	Adequate Sanitation (%)	9.0	*100*	0.0
WATSUP	Drinking Water (%)	60.0	*100*	32.1
PM10	Urban Particulates (μg/m^3)	84.68566	*20*	45.6
INDOOR	Indoor Air Pollution (%)	79.7	*0*	16.1
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.0	*0*	99.9
WATQI	Water Quality (GEMS Water Quality Index score)	55.3	*100*	25.6
WATSTR	Water Stress (%)	0.0	*0*	97.9
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	68.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.4	*10*	43.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	98.8
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	78.2
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.8	*0*	94.2
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.1	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	696.0	*0*	25.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.4	*0.85*	100.0

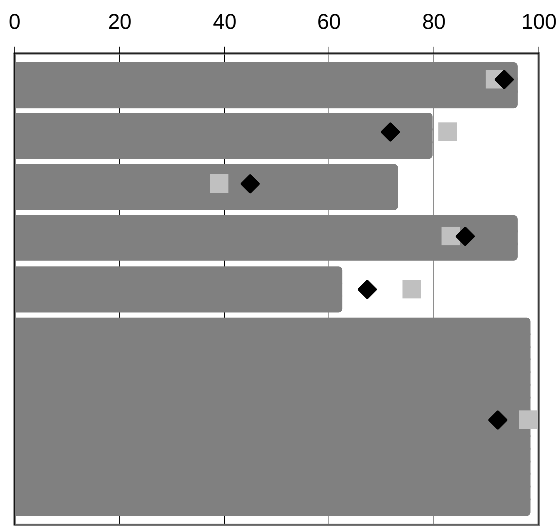
Estonia

EUROPE

GDP/capita 2005 est. (PPP) $15,885
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	19
Score:	85.2
Income Group Avg.	80.5
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	95.3	93.4	91.7
Water (eco)	79.0	71.7	82.7
Biodiv. and Habitat	72.4	44.9	39.1
Prod. Nat. Resources	95.2	85.9	83.3
Climate Change	61.8	67.3	75.8
Environmental Health	97.7	92.2	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	97.0	*100*	96.5
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates ($\mu g/m^3$)	15.51565	*20*	100.0
INDOOR	Indoor Air Pollution (%)	16.4	*0*	82.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	4.0	*0*	90.5
WATQI	Water Quality (GEMS Water Quality Index score)	76.4	*100*	60.7
WATSTR	Water Stress (%)	2.5	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	93.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.0	*10*	90.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	2.7	*10*	27.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	89.8
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	96.8
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	3.6	*0*	94.3
BURNED	Burned Land Area (%)	0.3	*0*	97.7
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	14.1	*2.24*	77.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	665.0	*0*	28.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.2	*0.85*	80.0

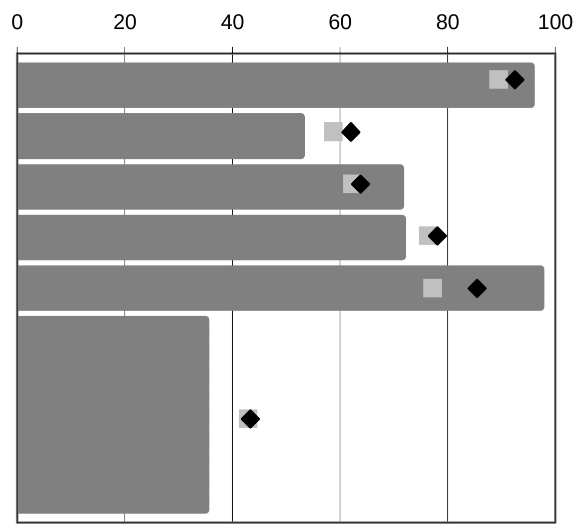
Ethiopia

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,030
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	123
Score:	58.8
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	95.5	92.5	89.6
Water (eco)	52.8	62.0	58.8
Biodiv. and Habitat	71.2	63.8	62.3
Prod. Nat. Resources	71.6	78.1	76.4
Climate Change	97.2	85.5	77.2
Environmental Health	35.0	43.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	28.0	*0*	49.5
ACSAT	Adequate Sanitation (%)	13.0	*100*	0.0
WATSUP	Drinking Water (%)	22.0	*100*	0.0
PM10	Urban Particulates (µg/m^3)	76.02753	*20*	52.9
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	26.3	*85*	98.6
OZONE_E	Regional Ozone (tons SO_2 / populated land)	34,988,800.0	*3,000*	91.5
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.5
WATQI	Water Quality (GEMS Water Quality Index score)	55.3	*100*	25.6
WATSTR	Water Stress (%)	18.2	*0*	80.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	70.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.8	*10*	68.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	75.0	*100*	75.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	69.8
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	4.8	*0*	94.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	1.0	*0*	98.4
BURNED	Burned Land Area (%)	6.6	*0*	51.5
PEST	Pesticide Regulation (points)	5.0	*22*	22.7
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	1.7	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	7.0	*0*	99.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.4	*0.85*	92.4

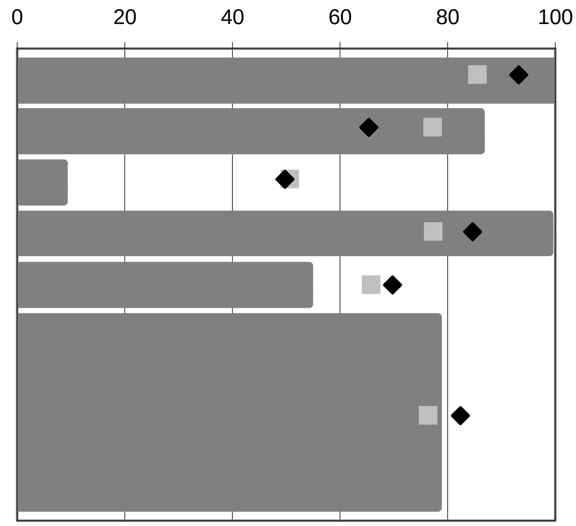
Fiji

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $5,529
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	92
Score:	69.7
Income Group Avg.	75.9
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.8	93.2	85.6
Water (eco)	86.2	65.4	77.3
Biodiv. and Habitat	8.7	49.7	50.7
Prod. Nat. Resources	99.0	84.7	77.4
Climate Change	54.3	69.7	65.8
Environmental Health	78.2	82.4	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	2.0	*0*	96.4
ACSAT	Adequate Sanitation (%)	72.0	*100*	67.3
WATSUP	Drinking Water (%)	47.0	*100*	10.0
PM10	Urban Particulates (µg/m^3)	25.63449	*20*	95.3
INDOOR	Indoor Air Pollution (%)	40.0	*0*	57.9
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.6
WATQI	Water Quality (GEMS Water Quality Index score)	83.5	*100*	72.5
WATSTR	Water Stress (%)	0.0	*0*	93.9
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	4.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	30.0	*100*	30.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	95.9
IRRSTR	Irrigation Stress (CIESIN, %)		*0*	
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)		*0*	
BURNED	Burned Land Area (%)		*0*	
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	48.2	*2.24*	11.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	365.8	*0*	60.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.5	*0.85*	91.1

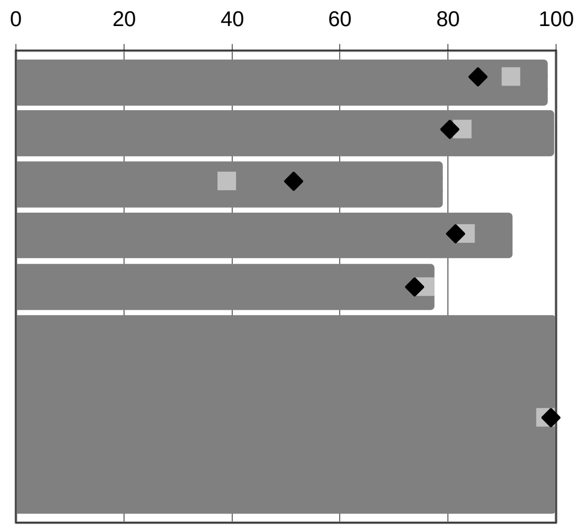
Finland

EUROPE

GDP/capita 2005 est. (PPP) $30,420
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	4
Score:	91.4
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.7	85.6	91.7
Water (eco)	99.0	80.3	82.7
Biodiv. and Habitat	78.3	51.4	39.1
Prod. Nat. Resources	91.3	81.3	83.3
Climate Change	76.8	73.8	75.8
Environmental Health	99.3	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates ($\mu g/m^3$)	19.14205	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.2	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	6,251.3	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.9	*0*	95.4
WATQI	Water Quality (GEMS Water Quality Index score)	99.1	*100*	98.4
WATSTR	Water Stress (%)	0.4	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	98.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.7	*10*	76.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.9	*10*	9.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	98.5
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	90.3
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	15.3	*0*	75.8
BURNED	Burned Land Area (%)	0.2	*0*	98.3
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	13.2	*2.24*	78.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	194.0	*0*	79.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.7	*0.85*	72.7

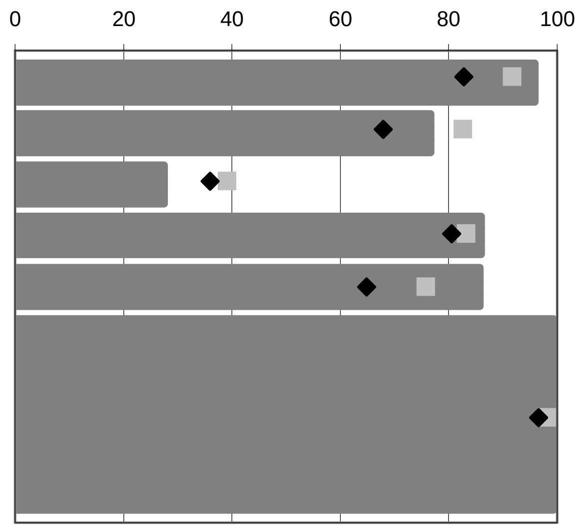
France

EUROPE

GDP/capita 2005 est. (PPP) $28,877
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	10
Score:	87.8
Income Group Avg.	80.4
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	95.9	82.8	91.7
Water (eco)	76.6	67.9	82.7
Biodiv. and Habitat	27.4	36.0	39.1
Prod. Nat. Resources	86.0	80.5	83.3
Climate Change	85.7	64.8	75.8
Environmental Health	99.4	96.5	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates ($\mu g/m^3$)	13.84845	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	12.0	*85*	99.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	10,271,600.0	*3,000*	97.5
SO2	Sulfur Dioxide Emissions (ppb)	2.4	*0*	94.2
WATQI	Water Quality (GEMS Water Quality Index score)	77.4	*100*	62.5
WATSTR	Water Stress (%)	8.4	*0*	89.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	34.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.5	*10*	25.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	50.0	*100*	50.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	92.8
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	75.2
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	29.0	*0*	54.2
BURNED	Burned Land Area (%)	0.4	*0*	97.1
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	9.1	*2.24*	86.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	91.0	*0*	90.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.2	*0.85*	80.2

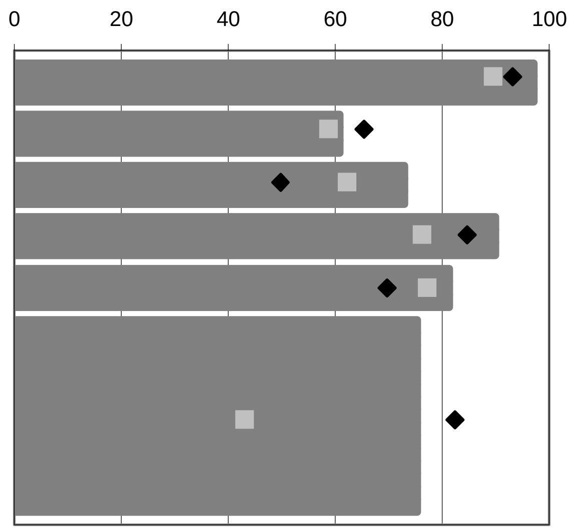
Gabon

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $5,835
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	64
Score:	77.3
Income Group Avg.	75.9
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.1	93.2	89.6
Water (eco)	60.9	65.4	58.8
Biodiv. and Habitat	73.0	49.7	62.3
Prod. Nat. Resources	89.9	84.7	76.4
Climate Change	81.4	69.7	77.2
Environmental Health	75.4	82.4	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	10.0	*0*	82.0
ACSAT	Adequate Sanitation (%)	36.0	*100*	25.1
WATSUP	Drinking Water (%)	88.0	*100*	79.6
PM10	Urban Particulates (µg/m^3)	6.374232	*20*	100.0
INDOOR	Indoor Air Pollution (%)	27.6	*0*	70.9
OZONE_H	Local Ozone (ppb)	288.8	*85*	84.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	7,606,480.0	*3,000*	98.1
SO2	Sulfur Dioxide Emissions (ppb)	1.7	*0*	96.0
WATQI	Water Quality (GEMS Water Quality Index score)	53.0	*100*	21.8
WATSTR	Water Stress (%)	0.0	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.4	*10*	94.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.0	*10*	10.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	99.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	76.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.8	*0*	98.7
BURNED	Burned Land Area (%)	0.1	*0*	99.5
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	7.8	*2.24*	89.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	368.0	*0*	60.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.2	*0.85*	94.6

Georgia

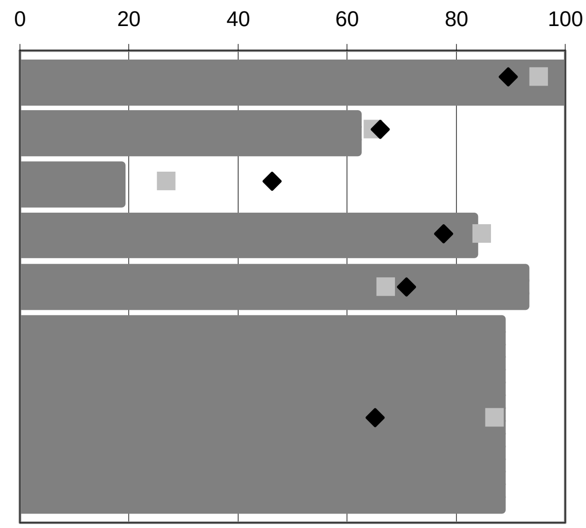
CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $3,304
Income Decile 7 (1=high, 10=low)

2008 EPI

Rank:	37
Score:	82.2
Income Group Avg.	66.8
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.8	89.6	95.1
Water (eco)	62.0	66.0	64.8
Biodiv. and Habitat	18.6	46.2	26.9
Prod. Nat. Resources	83.4	77.7	84.8
Climate Change	92.7	70.9	67.1
Environmental Health	88.4	65.2	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.3	*0*	99.5
ACSAT	Adequate Sanitation (%)	94.0	*100*	93.0
WATSUP	Drinking Water (%)	82.0	*100*	69.4
PM10	Urban Particulates ($\mu g/m^3$)	44.92102	*20*	79.0
INDOOR	Indoor Air Pollution (%)	43.0	*0*	54.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.6
WATQI	Water Quality (GEMS Water Quality Index score)	58.9	*100*	31.7
WATSTR	Water Stress (%)	7.0	*0*	39.6
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	28.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.5	*10*	14.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	70.2
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	85.2
IRRSTR	Irrigation Stress (CIESIN, %)	21.5	*0*	74.7
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	3.0	*0*	95.3
BURNED	Burned Land Area (%)	2.9	*0*	78.5
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.3	*2.24*	96.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	89.0	*0*	90.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.4	*0.85*	91.7

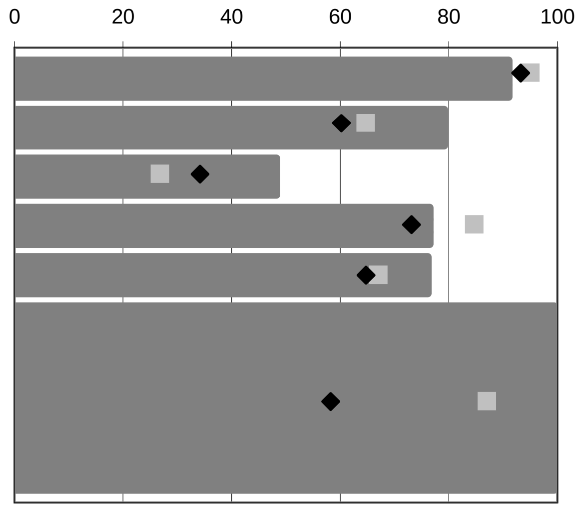
Germany

EUROPE

GDP/capita 2005 est. (PPP) $27,438
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	13
Score:	86.3
Income Group Avg.	80.4
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	91.1	82.8	91.7
Water (eco)	79.2	67.9	82.7
Biodiv. and Habitat	48.2	36.0	39.1
Prod. Nat. Resources	76.5	80.5	83.3
Climate Change	76.2	64.8	75.8
Environmental Health	99.4	96.5	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	19.29512	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	6.7	*85*	99.6
OZONE_E	Regional Ozone (tons SO_2 / populated land)	7,526,200.3	*3,000*	98.2
SO2	Sulfur Dioxide Emissions (ppb)	6.7	*0*	84.0
WATQI	Water Quality (GEMS Water Quality Index score)	85.6	*100*	76.0
WATSTR	Water Stress (%)	15.9	*0*	24.3
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	62.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.5	*10*	25.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.2	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	2.1
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	17.2	*0*	72.8
BURNED	Burned Land Area (%)	0.5	*0*	96.7
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	12.2	*2.24*	80.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	349.0	*0*	62.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.8	*0.85*	85.5

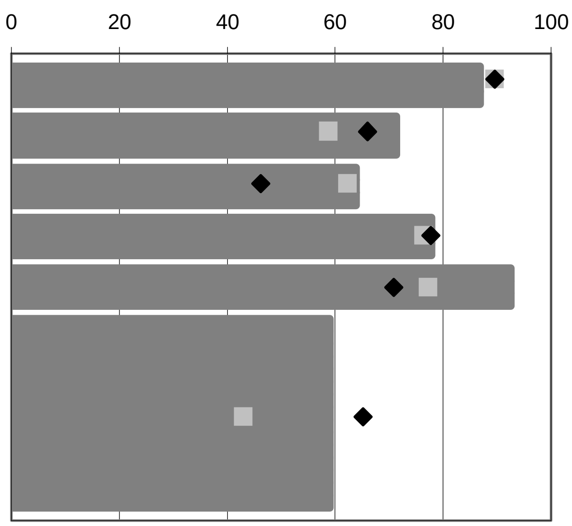
Ghana

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $2,299
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	86
Score:	70.8
Income Group Avg.	66.8
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	86.9	89.6	89.6
Water (eco)	71.3	66.0	58.8
Biodiv. and Habitat	63.8	46.2	62.3
Prod. Nat. Resources	77.9	77.7	76.4
Climate Change	92.6	70.9	77.2
Environmental Health	59.0	65.2	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	14.0	*0*	74.8
ACSAT	Adequate Sanitation (%)	18.0	*100*	4.1
WATSUP	Drinking Water (%)	75.0	*100*	57.6
PM10	Urban Particulates (µg/m^3)	34.81577	*20*	87.5
INDOOR	Indoor Air Pollution (%)	87.0	*0*	8.4
OZONE_H	Local Ozone (ppb)	263.4	*85*	85.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	104,195,00 0.3	*3,000*	74.6
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.2
WATQI	Water Quality (GEMS Water Quality Index score)	65.5	*100*	42.6
WATSTR	Water Stress (%)	0.0	*0*	90.7
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	84.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.1	*10*	71.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	100.0	*100*	100.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	61.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	81.1
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	10.6	*0*	83.3
BURNED	Burned Land Area (%)	7.1	*0*	47.7
PEST	Pesticide Regulation (points)	17.0	*22*	77.3
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.4	*2.24*	99.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	204.0	*0*	78.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

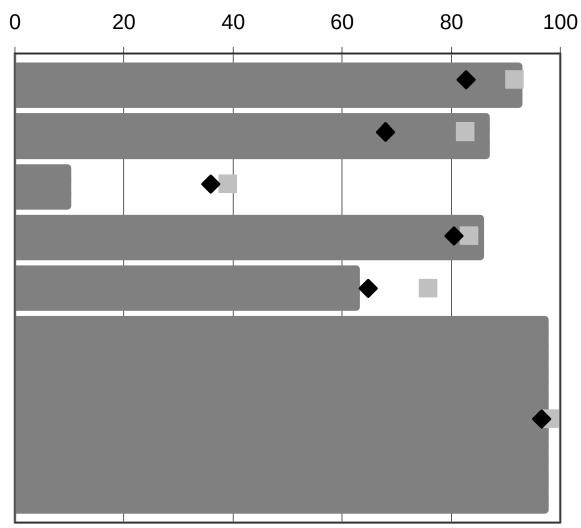
Greece

EUROPE

GDP/capita 2005 est. (PPP) $21,675
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	44
Score:	80.2
Income Group Avg.	80.4
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	92.3	82.8	91.7
Water (eco)	86.4	67.9	82.7
Biodiv. and Habitat	9.6	36.0	39.1
Prod. Nat. Resources	85.4	80.5	83.3
Climate Change	62.5	64.8	75.8
Environmental Health	97.2	96.5	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.5	*0*	99.1
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	41.11224	*20*	82.2
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	4.2	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	593,311.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	6.4	*0*	84.8
WATQI	Water Quality (GEMS Water Quality Index score)	86.6	*100*	77.7
WATSTR	Water Stress (%)	4.5	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	18.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.5	*10*	4.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.5	*10*	5.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	99.5
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.4	*0*	59.9
IRRSTR	Irrigation Stress (CIESIN, %)	1.5	*0*	98.2
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	9.4	*0*	85.1
BURNED	Burned Land Area (%)	2.6	*0*	80.5
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.4	*2.24*	82.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	776.0	*0*	16.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.6	*0.85*	89.0

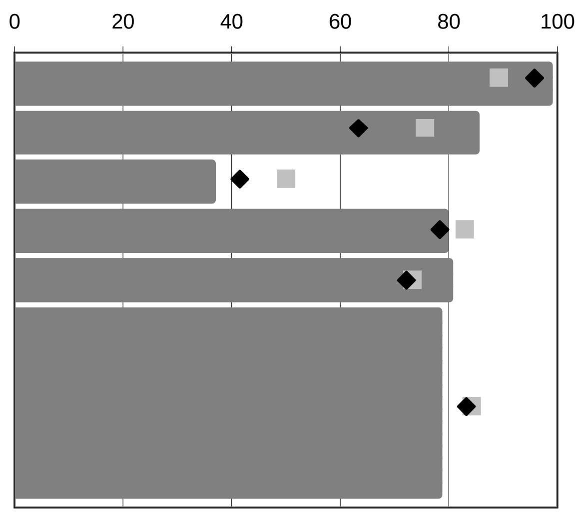
Guatemala

AMERICAS

GDP/capita 2005 est. (PPP) $4,150
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	69
Score:	76.7
Income Group Avg.	75.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.5	95.8	89.3
Water (eco)	85.1	63.4	75.7
Biodiv. and Habitat	36.4	41.5	50.1
Prod. Nat. Resources	79.3	78.4	83.1
Climate Change	80.2	72.3	73.4
Environmental Health	78.2	83.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	9.0	*0*	83.8
ACSAT	Adequate Sanitation (%)	86.0	*100*	83.6
WATSUP	Drinking Water (%)	95.0	*100*	91.5
PM10	Urban Particulates (µg/m^3)	67.46457	*20*	60.1
INDOOR	Indoor Air Pollution (%)	62.2	*0*	34.5
OZONE_H	Local Ozone (ppb)	19.5	*85*	98.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	4,527,020.2	*3,000*	98.9
SO2	Sulfur Dioxide Emissions (ppb)	0.8	*0*	98.0
WATQI	Water Quality (GEMS Water Quality Index score)	82.0	*100*	70.1
WATSTR	Water Stress (%)	0.0	*0*	81.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	76.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.6	*10*	66.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.3	*10*	3.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	71.9
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	77.8
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	5.9	*0*	90.7
BURNED	Burned Land Area (%)	0.7	*0*	95.1
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.7	*2.24*	93.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	384.0	*0*	58.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.6	*0.85*	88.5

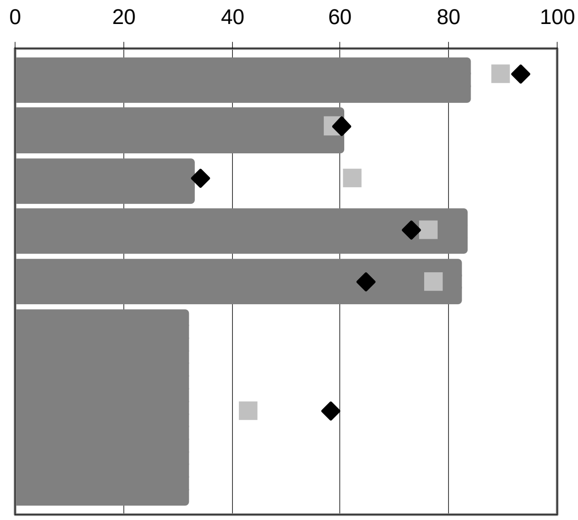
Guinea

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $2,108
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	138
Score:	51.3
Income Group Avg.	60.2
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	83.4	93.3	89.6
Water (eco)	60.1	60.3	58.8
Biodiv. and Habitat	32.4	34.2	62.3
Prod. Nat. Resources	82.8	73.1	76.4
Climate Change	81.8	64.8	77.2
Environmental Health	31.3	58.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	33.0	*0*	40.5
ACSAT	Adequate Sanitation (%)	18.0	*100*	4.1
WATSUP	Drinking Water (%)	50.0	*100*	15.1
PM10	Urban Particulates (µg/m^3)	70.62984	*20*	57.4
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	786.3	*85*	57.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	133,979,002.9	*3,000*	67.3
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.4
WATQI	Water Quality (GEMS Water Quality Index score)	52.0	*100*	20.1
WATSTR	Water Stress (%)	0.0	*0*	42.7
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	53.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.9	*10*	8.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	50.0	*100*	50.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	88.5
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.4	*0*	56.1
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	5.6	*0*	58.6
PEST	Pesticide Regulation (points)	11.0	*22*	50.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.1	*2.24*	94.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	451.8	*0*	51.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.9	*0.85*	99.6

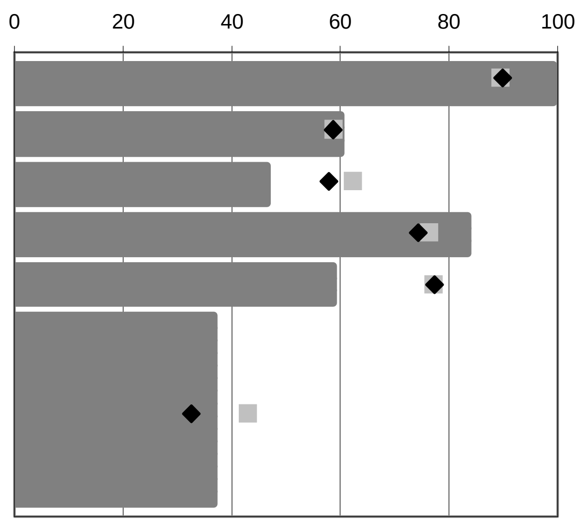
Guinea-Bissau

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $745
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	140
Score:	49.7
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.2	89.9	89.6
Water (eco)	60.1	58.7	58.8
Biodiv. and Habitat	46.5	57.8	62.3
Prod. Nat. Resources	83.5	74.4	76.4
Climate Change	58.7	77.3	77.2
Environmental Health	36.7	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	33.0	*0*	40.5
ACSAT	Adequate Sanitation (%)	35.0	*100*	24.0
WATSUP	Drinking Water (%)	59.0	*100*	30.4
PM10	Urban Particulates (µg/m^3)	78.09338	*20*	51.1
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	188.7	*85*	89.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	4,343,260.2	*3,000*	98.9
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.4
WATQI	Water Quality (GEMS Water Quality Index score)	52.0	*100*	20.1
WATSTR	Water Stress (%)	0.0	*0*	99.8
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	3.9	*10*	39.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	91.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.4	*0*	64.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	2.7	*0*	80.2
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	25.6	*2.24*	55.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	648.6	*0*	30.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.5	*0.85*	90.9

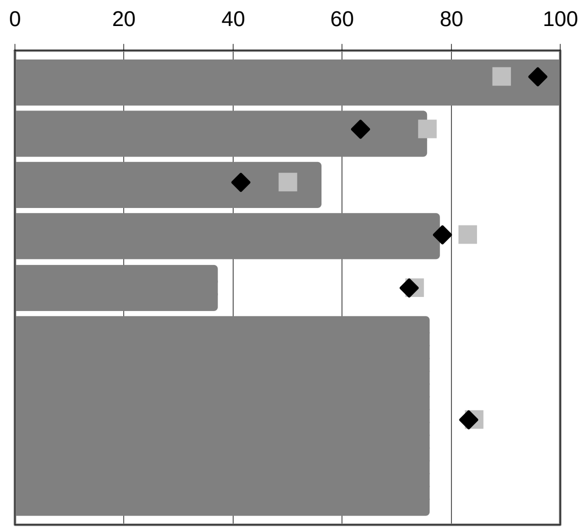
Guyana

AMERICAS

GDP/capita 2005 est. (PPP) $4,204
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	108
Score:	64.8
Income Group Avg.	75.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.6	95.8	89.3
Water (eco)	74.8	63.4	75.7
Biodiv. and Habitat	55.5	41.5	50.1
Prod. Nat. Resources	77.2	78.4	83.1
Climate Change	36.5	72.3	73.4
Environmental Health	75.3	83.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	10.0	*0*	82.0
ACSAT	Adequate Sanitation (%)	70.0	*100*	64.9
WATSUP	Drinking Water (%)	83.0	*100*	71.1
PM10	Urban Particulates (µg/m^3)	37.57263	*20*	85.2
INDOOR	Indoor Air Pollution (%)	59.0	*0*	37.9
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.2
WATQI	Water Quality (GEMS Water Quality Index score)	69.7	*100*	49.6
WATSTR	Water Stress (%)	0.0	*0*	65.4
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	99.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	5.0	*10*	49.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.5	*0*	99.2
BURNED	Burned Land Area (%)	0.0	*0*	99.9
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	54.1	*2.24*	0.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	644.8	*0*	30.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.3	*0.85*	79.0

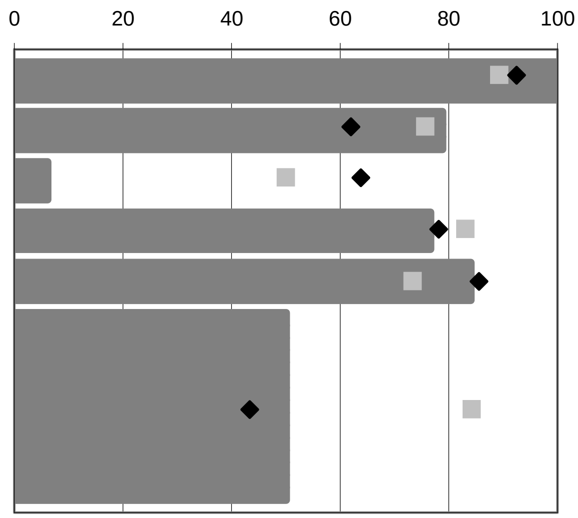
Haiti

AMERICAS

GDP/capita 2005 est. (PPP) $1,479
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	119
Score:	60.7
Income Group Avg.	60.6
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.8	92.5	89.3
Water (eco)	78.9	62.0	75.7
Biodiv. and Habitat	6.2	63.8	50.1
Prod. Nat. Resources	76.7	78.1	83.1
Climate Change	84.1	85.5	73.4
Environmental Health	50.1	43.3	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	20.0	*0*	63.9
ACSAT	Adequate Sanitation (%)	30.0	*100*	18.1
WATSUP	Drinking Water (%)	54.0	*100*	21.9
PM10	Urban Particulates (µg/m^3)	42.46014	*20*	81.1
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.6
WATQI	Water Quality (GEMS Water Quality Index score)	75.6	*100*	59.4
WATSTR	Water Stress (%)	1.6	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	5.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.1	*10*	0.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	18.8	*100*	18.8
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	86.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	72.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	28.0	*0*	55.7
BURNED	Burned Land Area (%)	0.2	*0*	98.5
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	1.3	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	307.0	*0*	66.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.9	*0.85*	85.4

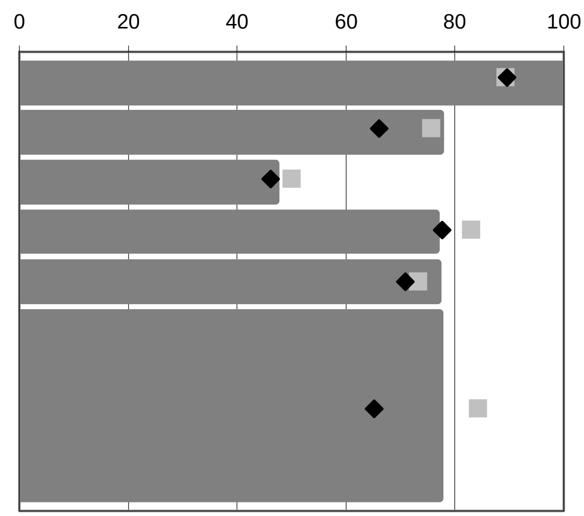
Honduras

AMERICAS

GDP/capita 2005 est. (PPP) $3,170
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	73
Score:	75.4
Income Group Avg.	66.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.6	89.6	89.3
Water (eco)	77.3	66.0	75.7
Biodiv. and Habitat	47.1	46.2	50.1
Prod. Nat. Resources	76.5	77.7	83.1
Climate Change	76.9	70.9	73.4
Environmental Health	77.2	65.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	8.0	*0*	85.6
ACSAT	Adequate Sanitation (%)	69.0	*100*	63.7
WATSUP	Drinking Water (%)	87.0	*100*	77.9
PM10	Urban Particulates (µg/m^3)	47.05335	*20*	77.2
INDOOR	Indoor Air Pollution (%)	57.0	*0*	40.0
OZONE_H	Local Ozone (ppb)	0.2	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	7,389.7	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.2
WATQI	Water Quality (GEMS Water Quality Index score)	74.2	*100*	57.1
WATSTR	Water Stress (%)	2.3	*0*	92.2
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	72.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.9	*10*	69.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	39.3	*100*	39.3
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.7	*10*	7.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	53.6
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	91.3
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	1.3	*0*	97.9
BURNED	Burned Land Area (%)	0.2	*0*	98.7
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.1	*2.24*	98.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	411.0	*0*	55.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.5	*0.85*	76.6

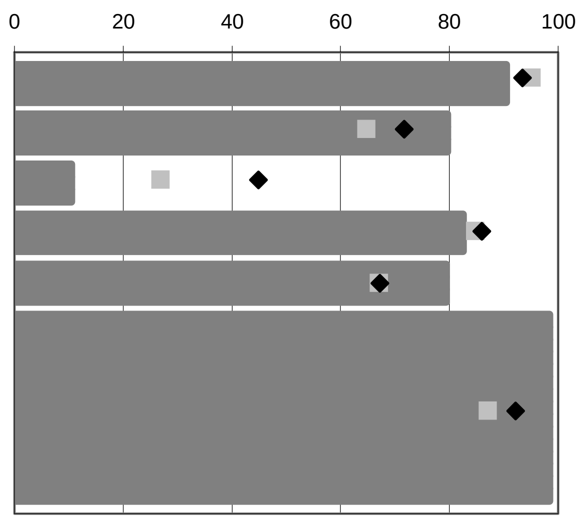
Hungary

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $16,928
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	23
Score:	84.2
Income Group Avg.	80.5
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	90.4	93.4	95.1
Water (eco)	79.6	71.7	64.8
Biodiv. and Habitat	10.5	44.9	26.9
Prod. Nat. Resources	82.5	85.9	84.8
Climate Change	79.4	67.3	67.1
Environmental Health	98.4	92.2	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	95.0	*100*	94.2
WATSUP	Drinking Water (%)	99.0	*100*	98.3
PM10	Urban Particulates (µg/m^3)	17.9057	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	388.3	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	8.1	*0*	80.8
WATQI	Water Quality (GEMS Water Quality Index score)	91.8	*100*	86.3
WATSTR	Water Stress (%)	24.5	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	12.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.9	*10*	8.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	21.1	*0*	54.8
AGINT	Intensive Cropland (CIESIN, %)	40.7	*0*	35.7
BURNED	Burned Land Area (%)	8.2	*0*	39.4
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.1	*2.24*	88.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	339.0	*0*	63.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.8	*0.85*	86.1

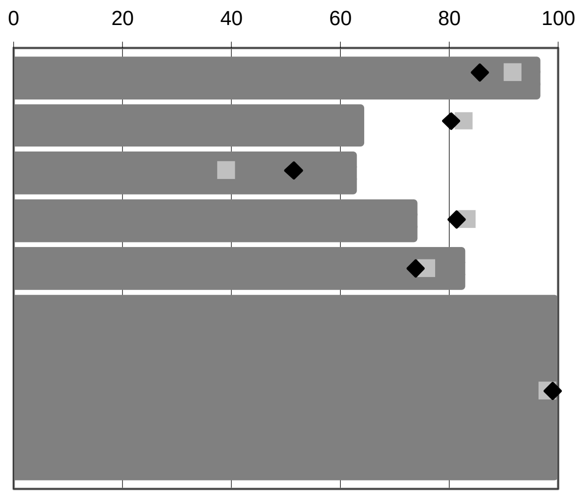
Iceland

EUROPE

GDP/capita 2005 est. (PPP) $33,610
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	11
Score:	87.6
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.0	85.6	91.7
Water (eco)	63.7	80.3	82.7
Biodiv. and Habitat	62.3	51.4	39.1
Prod. Nat. Resources	73.4	81.3	83.3
Climate Change	82.3	73.8	75.8
Environmental Health	99.3	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	18.13126	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	3.4	*0*	92.0
WATQI	Water Quality (GEMS Water Quality Index score)	57.0	*100*	28.5
WATSTR	Water Stress (%)	0.9	*0*	84.6
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.3	*10*	82.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.4	*10*	4.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	47.1
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.5	*0*	46.5
IRRSTR	Irrigation Stress (CIESIN, %)		*0*	
AGSUB	Agricultural Subsidies (% border agricultural prices)	69.0	*0*	-0.0
AGINT	Intensive Cropland (CIESIN, %)		*0*	
BURNED	Burned Land Area (%)	0.3	*0*	97.6
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	12.9	*2.24*	79.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	1.0	*0*	99.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.1	*0.85*	67.4

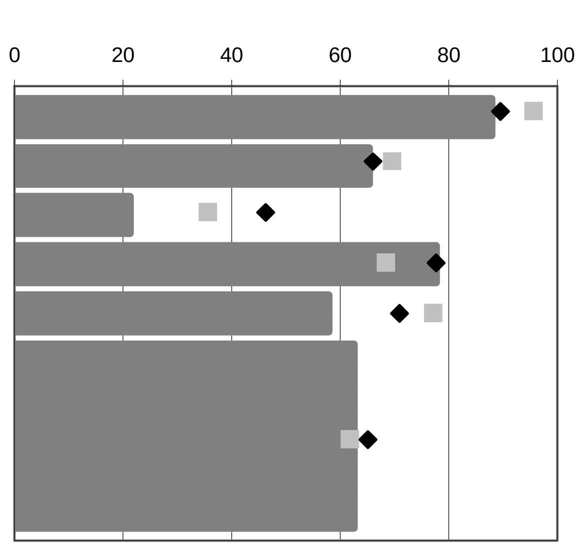
India

SOUTH ASIA

GDP/capita 2005 est. (PPP) $3,308
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	120
Score:	60.3
Income Group Avg.	66.8
Geographic Group Avg.	65.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	88.0	89.6	95.7
Water (eco)	65.4	66.0	69.7
Biodiv. and Habitat	21.2	46.2	35.7
Prod. Nat. Resources	77.7	77.7	68.5
Climate Change	57.9	70.9	77.2
Environmental Health	62.6	65.2	62.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	13.0	*0*	76.6
ACSAT	Adequate Sanitation (%)	33.0	*100*	21.6
WATSUP	Drinking Water (%)	86.0	*100*	76.2
PM10	Urban Particulates (µg/m^3)	71.58736	*20*	56.6
INDOOR	Indoor Air Pollution (%)	81.8	*0*	13.9
OZONE_H	Local Ozone (ppb)	3.9	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	73,890,698.2	*3,000*	82.0
SO2	Sulfur Dioxide Emissions (ppb)	2.6	*0*	93.9
WATQI	Water Quality (GEMS Water Quality Index score)	80.6	*100*	67.7
WATSTR	Water Stress (%)	33.5	*0*	84.7
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	15.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.7	*10*	16.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	43.8	*100*	43.8
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.5	*10*	5.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	82.6
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	71.9
IRRSTR	Irrigation Stress (CIESIN, %)	16.7	*0*	80.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	13.1	*0*	71.9
AGINT	Intensive Cropland (CIESIN, %)	50.6	*0*	20.1
BURNED	Burned Land Area (%)	1.0	*0*	92.9
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.2	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	943.0	*0*	0.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.6	*0.85*	73.8

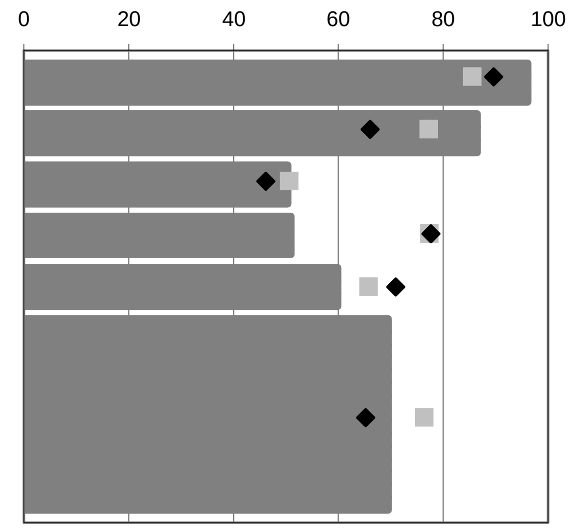
Indonesia

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $3,570
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	102
Score:	66.2
Income Group Avg.	66.8
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.1	89.6	85.6
Water (eco)	86.4	66.0	77.3
Biodiv. and Habitat	50.3	46.2	50.7
Prod. Nat. Resources	50.9	77.7	77.4
Climate Change	59.8	70.9	65.8
Environmental Health	69.5	65.2	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	5.0	*0*	91.0
ACSAT	Adequate Sanitation (%)	55.0	*100*	47.4
WATSUP	Drinking Water (%)	77.0	*100*	61.0
PM10	Urban Particulates ($\mu g/m^3$)	102.0974	*20*	30.9
INDOOR	Indoor Air Pollution (%)	72.2	*0*	24.0
OZONE_H	Local Ozone (ppb)	4.6	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	20,592,999.7	*3,000*	95.0
SO2	Sulfur Dioxide Emissions (ppb)	1.1	*0*	97.3
WATQI	Water Quality (GEMS Water Quality Index score)	83.8	*100*	73.1
WATSTR	Water Stress (%)	0.2	*0*	53.5
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	73.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.9	*10*	99.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	19.0	*100*	19.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.0	*10*	10.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.7	*0*	-0.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.6	*0*	40.8
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	26.7	*0*	42.7
AGINT	Intensive Cropland (CIESIN, %)	10.9	*0*	82.8
BURNED	Burned Land Area (%)	0.0	*0*	99.6
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	7.2	*2.24*	90.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	771.0	*0*	16.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.8	*0.85*	72.1

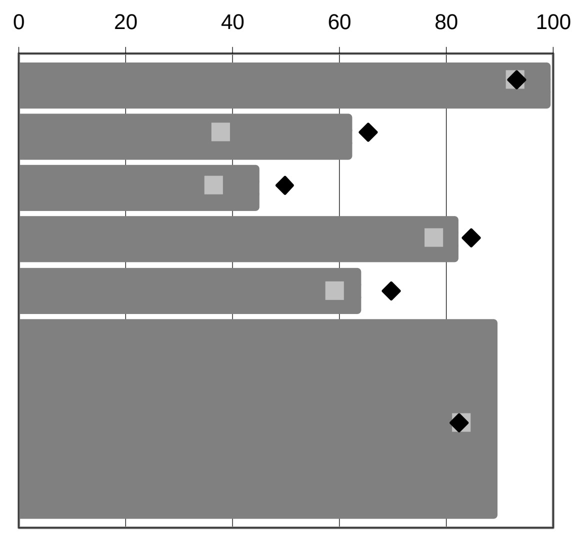
Iran

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $7,405
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	67
Score:	76.9
Income Group Avg.	75.9
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.8	93.2	92.9
Water (eco)	61.7	65.4	37.8
Biodiv. and Habitat	44.3	49.7	36.5
Prod. Nat. Resources	81.6	84.7	77.8
Climate Change	63.4	69.7	59.2
Environmental Health	88.9	82.4	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	4.0	*0*	92.8
ACSAT	Adequate Sanitation (%)	83.0	*100*	80.1
WATSUP	Drinking Water (%)	94.0	*100*	89.8
PM10	Urban Particulates (µg/m^3)	57.79872	*20*	68.2
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.4	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	544,369.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	1.0	*0*	97.6
WATQI	Water Quality (GEMS Water Quality Index score)	70.7	*100*	51.3
WATSTR	Water Stress (%)	25.3	*0*	38.3
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	95.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.1	*10*	41.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.2	*10*	12.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	92.8
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.9	*0*	14.7
IRRSTR	Irrigation Stress (CIESIN, %)	9.0	*0*	89.4
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	13.2	*0*	79.1
BURNED	Burned Land Area (%)	0.6	*0*	95.4
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.8	*2.24*	87.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	534.0	*0*	42.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.5	*0.85*	60.7

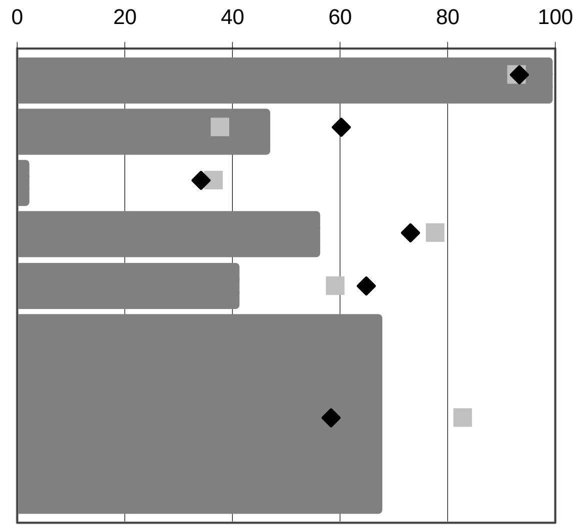
Iraq

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $1,900
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	135
Score:	53.9
Income Group Avg.	60.2
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.8	93.3	92.9
Water (eco)	46.3	60.3	37.8
Biodiv. and Habitat	1.6	34.2	36.5
Prod. Nat. Resources	55.6	73.1	77.8
Climate Change	40.6	64.8	59.2
Environmental Health	67.1	58.3	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	17.0	*0*	69.4
ACSAT	Adequate Sanitation (%)	79.0	*100*	75.4
WATSUP	Drinking Water (%)	81.0	*100*	67.7
PM10	Urban Particulates ($\mu g/m^3$)	138.3197	*20*	0.5
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.3	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	122,975.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.0	*0*	97.7
WATQI	Water Quality (GEMS Water Quality Index score)	52.7	*100*	21.3
WATSTR	Water Stress (%)	26.0	*0*	99.2
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	2.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	25.4	*0*	70.2
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	21.6	*0*	65.9
BURNED	Burned Land Area (%)	0.2	*0*	98.3
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.6	*2.24*	97.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	701.0	*0*	24.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	10.5	*0.85*	-0.0

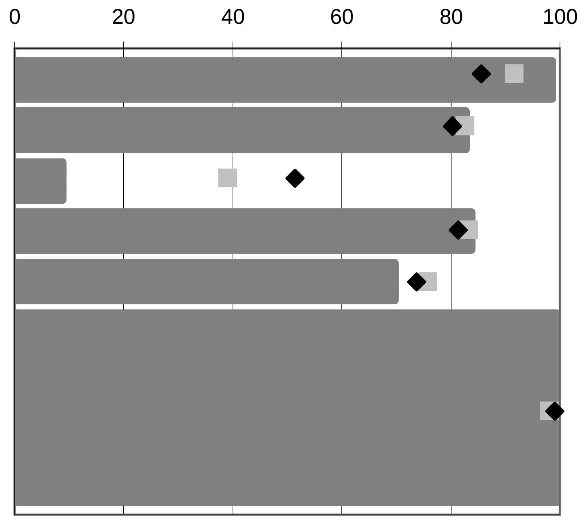
Ireland

EUROPE

GDP/capita 2005 est. (PPP) $36,238
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	34
Score:	82.7
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	98.6	85.6	91.7
Water (eco)	82.8	80.3	82.7
Biodiv. and Habitat	8.8	51.4	39.1
Prod. Nat. Resources	83.8	81.3	83.3
Climate Change	69.7	73.8	75.8
Environmental Health	99.4	99.0	98.1

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (μg/m^3)	18.68792	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.7	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	29,340.2	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.2	*0*	97.2
WATQI	Water Quality (GEMS Water Quality Index score)	79.3	*100*	65.5
WATSTR	Water Stress (%)	0.0	*0*	47.5
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	24.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.2	*10*	2.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	98.5
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.6	*0*	39.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	2.9	*0*	95.4
BURNED	Burned Land Area (%)	0.1	*0*	99.5
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	15.6	*2.24*	74.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	584.0	*0*	37.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.0	*0.85*	97.8

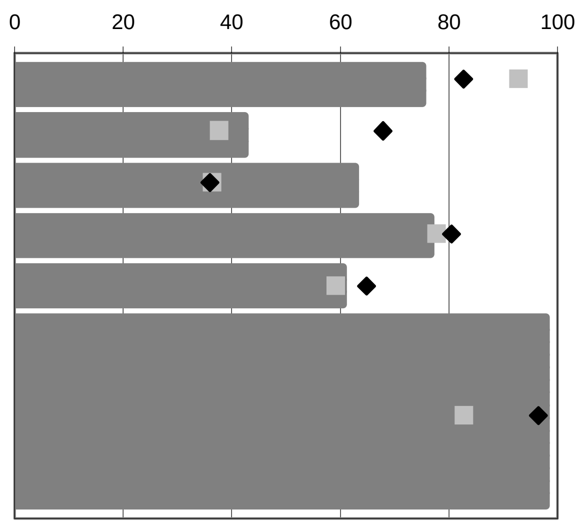
Israel

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $23,020
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	49
Score:	79.6
Income Group Avg.	80.4
Geographic Group Avg.	70.0

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	75.2	82.8	92.9
Water (eco)	42.4	67.9	37.8
Biodiv. and Habitat	62.7	36.0	36.5
Prod. Nat. Resources	76.6	80.5	77.8
Climate Change	60.5	64.8	59.2
Environmental Health	97.9	96.5	82.9

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	37.50732	*20*	85.3
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	21.0	*0*	50.3
WATQI	Water Quality (GEMS Water Quality Index score)	80.7	*100*	67.8
WATSTR	Water Stress (%)	75.3	*0*	59.1
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	72.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.5	*10*	64.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	100.0	*100*	100.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.3	*10*	13.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	83.3
IRRSTR	Irrigation Stress (CIESIN, %)	19.1	*0*	77.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	46.4	*0*	0.5
AGINT	Intensive Cropland (CIESIN, %)	29.4	*0*	53.6
BURNED	Burned Land Area (%)	0.5	*0*	96.3
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	9.9	*2.24*	85.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	767.0	*0*	17.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.3	*0.85*	79.0

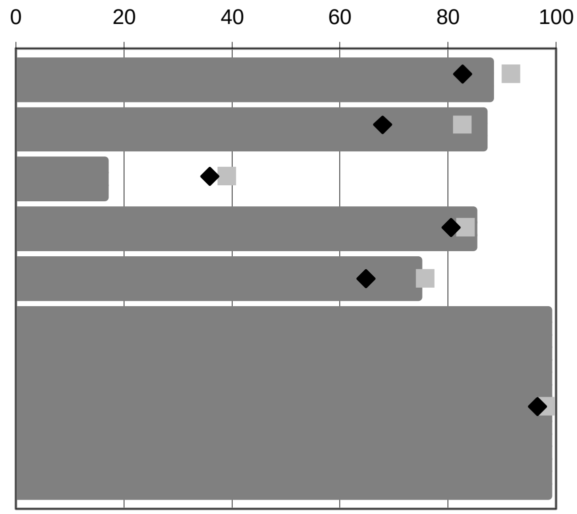
Italy

EUROPE

GDP/capita 2005 est. (PPP) $26,496
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	24
Score:	84.2
Income Group Avg.	80.4
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	87.7	82.8	91.7
Water (eco)	86.7	67.9	82.7
Biodiv. and Habitat	16.5	36.0	39.1
Prod. Nat. Resources	84.7	80.5	83.3
Climate Change	74.5	64.8	75.8
Environmental Health	98.6	96.5	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	27.12498	*20*	94.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	57.7	*85*	96.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	49,997,900.8	*3,000*	87.8
SO2	Sulfur Dioxide Emissions (ppb)	5.2	*0*	87.7
WATQI	Water Quality (GEMS Water Quality Index score)	95.7	*100*	92.8
WATSTR	Water Stress (%)	17.7	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	39.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.8	*10*	17.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.9	*10*	9.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	85.1
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	75.1
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	21.9	*0*	65.3
BURNED	Burned Land Area (%)	2.0	*0*	85.7
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	10.1	*2.24*	84.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	405.0	*0*	56.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.1	*0.85*	82.3

2008 Environmental Performance Index

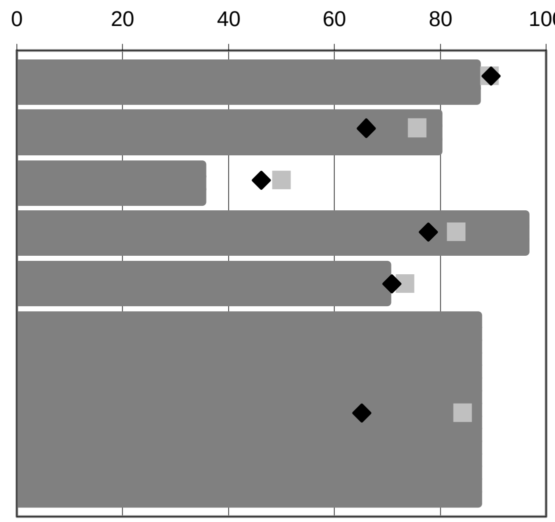
Jamaica

AMERICAS

GDP/capita 2005 est. (PPP) $3,907
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	54
Score:	79.1
Income Group Avg.	66.8
Geographic Group Avg.	78.4

Policy Categories



	Country	◆ *Income Group*	■ *Geographic Group*
Air Pollution (eco)	86.9	89.6	89.3
Water (eco)	79.7	66.0	75.7
Biodiv. and Habitat	35.0	46.2	50.1
Prod. Nat. Resources	96.2	77.7	83.1
Climate Change	70.0	70.9	73.4
Environmental Health	87.2	65.2	84.3

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	2.0	*0*	96.4
ACSAT	Adequate Sanitation (%)	80.0	*100*	76.6
WATSUP	Drinking Water (%)	93.0	*100*	88.1
PM10	Urban Particulates (µg/m^3)	42.23425	*20*	81.3
INDOOR	Indoor Air Pollution (%)	45.0	*0*	52.6
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	11.0	*0*	73.8
WATQI	Water Quality (GEMS Water Quality Index score)	75.6	*100*	59.4
WATSTR	Water Stress (%)	0.0	*0*	97.5
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	66.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.9	*10*	28.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	40.0	*100*	40.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.5	*10*	5.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	92.3
IRRSTR	Irrigation Stress (CIESIN, %)		*0*	
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	10.2	*0*	83.9
BURNED	Burned Land Area (%)		*0*	
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.0	*2.24*	94.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	713.0	*0*	23.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.4	*0.85*	92.1

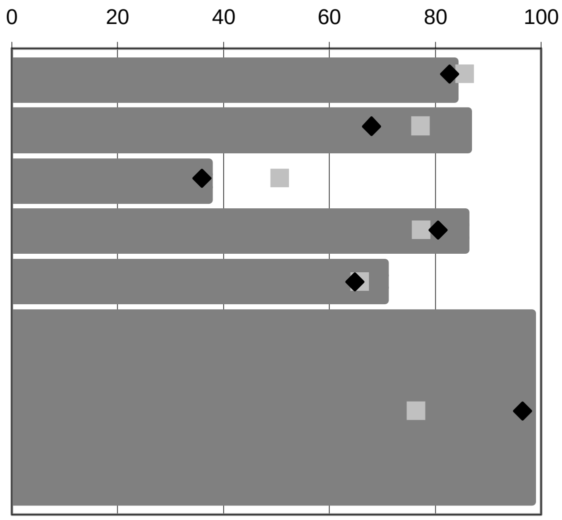
Japan

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $27,992
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	21
Score:	84.5
Income Group Avg.	80.4
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	83.7	82.8	85.6
Water (eco)	86.3	67.9	77.3
Biodiv. and Habitat	37.3	36.0	50.7
Prod. Nat. Resources	85.7	80.5	77.4
Climate Change	70.5	64.8	65.8
Environmental Health	98.3	96.5	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	31.17056	*20*	90.6
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	31.7	*85*	98.3
OZONE_E	Regional Ozone (tons SO_2 / populated land)	64,317,701.1	*3,000*	84.3
SO2	Sulfur Dioxide Emissions (ppb)	7.1	*0*	83.1
WATQI	Water Quality (GEMS Water Quality Index score)	87.2	*100*	78.7
WATSTR	Water Stress (%)	5.6	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	93.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.6	*10*	25.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	27.8	*100*	27.8
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	81.6
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	75.3
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	56.0	*0*	-0.0
AGINT	Intensive Cropland (CIESIN, %)	1.7	*0*	97.4
BURNED	Burned Land Area (%)	0.5	*0*	96.2
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.0	*2.24*	83.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	429.0	*0*	53.8
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.6	*0.85*	74.6

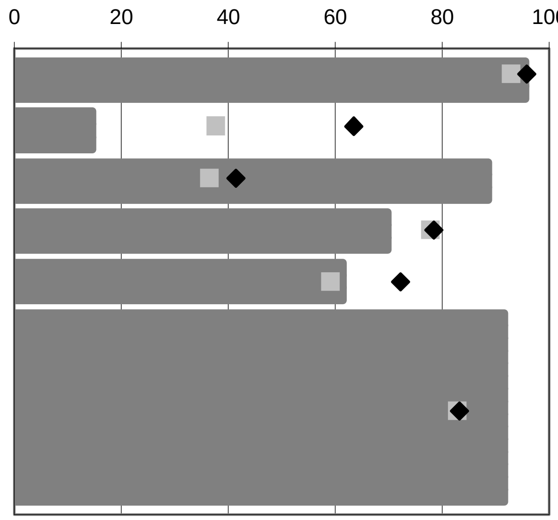
Jordan

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $5,176
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	70
Score:	76.5
Income Group Avg.	75.8
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	95.6	95.8	92.9
Water (eco)	14.6	63.4	37.8
Biodiv. and Habitat	88.7	41.5	36.5
Prod. Nat. Resources	69.8	78.4	77.8
Climate Change	61.4	72.3	59.2
Environmental Health	91.7	83.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	4.0	*0*	92.8
ACSAT	Adequate Sanitation (%)	93.0	*100*	91.8
WATSUP	Drinking Water (%)	97.0	*100*	94.9
PM10	Urban Particulates (µg/m^3)	50.30653	*20*	74.5
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	3.7	*0*	91.2
WATQI	Water Quality (GEMS Water Quality Index score)	47.1	*100*	11.9
WATSTR	Water Stress (%)	75.0	*0*	95.1
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.7	*10*	77.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	97.4
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	1.3
IRRSTR	Irrigation Stress (CIESIN, %)	52.7	*0*	38.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	46.4	*0*	0.5
AGINT	Intensive Cropland (CIESIN, %)	23.7	*0*	62.6
BURNED	Burned Land Area (%)	0.0	*0*	99.8
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.2	*2.24*	96.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	660.0	*0*	28.8
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.6	*0.85*	59.1

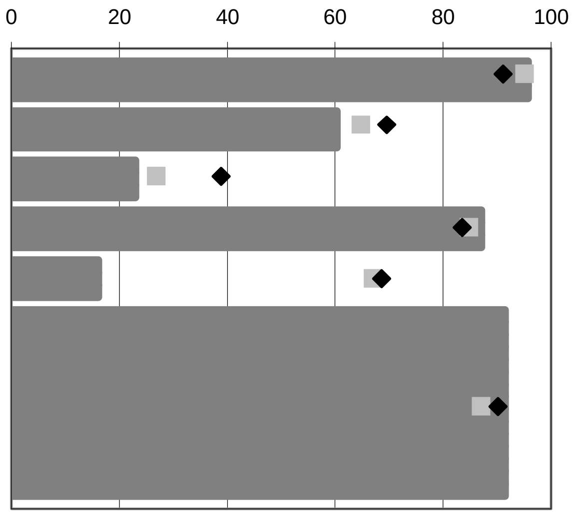
Kazakhstan

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $7,652
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	107
Score:	65.0
Income Group Avg.	79.0
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	95.8	91.1	95.1
Water (eco)	60.3	69.6	64.8
Biodiv. and Habitat	22.9	38.9	26.9
Prod. Nat. Resources	87.0	83.6	84.8
Climate Change	16.1	68.6	67.1
Environmental Health	91.5	90.2	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	72.0	*100*	67.3
WATSUP	Drinking Water (%)	86.0	*100*	76.2
PM10	Urban Particulates (µg/m^3)	18.79774	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.1	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	35,074.5	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	3.6	*0*	91.5
WATQI	Water Quality (GEMS Water Quality Index score)	65.6	*100*	42.8
WATSTR	Water Stress (%)	20.1	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	24.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.1	*10*	21.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	14.6	*0*	82.9
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	8.7	*0*	86.2
BURNED	Burned Land Area (%)	6.0	*0*	55.9
PEST	Pesticide Regulation (points)	10.0	*22*	45.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	29.0	*2.24*	48.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	1,137.0	*0*	0.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	8.3	*0.85*	-0.0

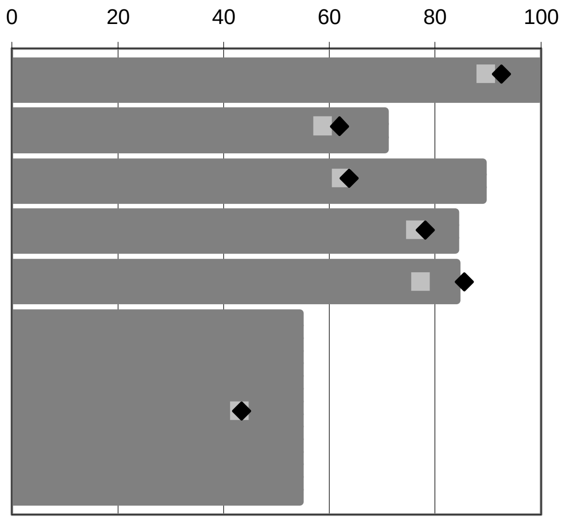
Kenya

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,137
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	96
Score:	69.0
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.7	92.5	89.6
Water (eco)	70.5	62.0	58.8
Biodiv. and Habitat	89.0	63.8	62.3
Prod. Nat. Resources	83.9	78.1	76.4
Climate Change	84.1	85.5	77.2
Environmental Health	54.5	43.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	23.0	*0*	58.5
ACSAT	Adequate Sanitation (%)	43.0	*100*	33.3
WATSUP	Drinking Water (%)	61.0	*100*	33.8
PM10	Urban Particulates ($\mu g/m^3$)	38.68996	*20*	84.3
INDOOR	Indoor Air Pollution (%)	62.6	*0*	34.1
OZONE_H	Local Ozone (ppb)	0.1	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	72,537.7	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.4
WATQI	Water Quality (GEMS Water Quality Index score)	73.8	*100*	56.4
WATSTR	Water Stress (%)	13.9	*0*	65.2
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.3	*10*	82.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	100.0	*100*	100.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.2	*10*	12.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	90.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	76.9
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	91.3
IRRSTR	Irrigation Stress (CIESIN, %)	4.0	*0*	95.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	3.6	*0*	92.3
AGINT	Intensive Cropland (CIESIN, %)	1.3	*0*	97.9
BURNED	Burned Land Area (%)	2.5	*0*	81.4
PEST	Pesticide Regulation (points)	4.0	*22*	18.2
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	1.8	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	307.0	*0*	66.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.9	*0.85*	85.3

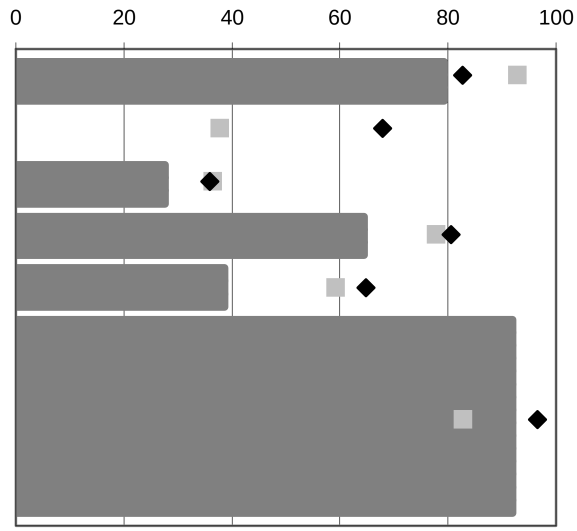
Kuwait

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $23,416
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	111
Score:	64.5
Income Group Avg.	80.4
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	79.3	82.8	92.9
Water (eco)	0.0	67.9	37.8
Biodiv. and Habitat	27.6	36.0	36.5
Prod. Nat. Resources	64.5	80.5	77.8
Climate Change	38.6	64.8	59.2
Environmental Health	92.0	96.5	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	107.925	*20*	26.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	17.5	*0*	58.5
WATQI	Water Quality (GEMS Water Quality Index score)	39.9	*100*	0.0
WATSTR	Water Stress (%)	90.6	*0*	98.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	73.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.6	*10*	6.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.2	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	57.9
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	85.0	*0*	-0.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)		*0*	
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	30.1	*2.24*	46.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	807.0	*0*	13.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.8	*0.85*	56.8

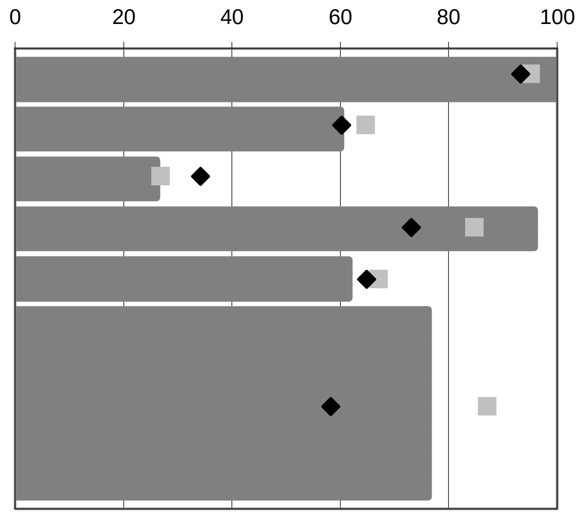
Kyrgyzstan

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $1,749
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	94
Score:	69.6
Income Group Avg.	60.2
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.7	93.3	95.1
Water (eco)	60.1	60.3	64.8
Biodiv. and Habitat	26.1	34.2	26.9
Prod. Nat. Resources	95.8	73.1	84.8
Climate Change	61.5	64.8	67.1
Environmental Health	76.2	58.3	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	5.0	*0*	91.0
ACSAT	Adequate Sanitation (%)	59.0	*100*	52.0
WATSUP	Drinking Water (%)	77.0	*100*	61.0
PM10	Urban Particulates (µg/m^3)	24.42867	*20*	96.3
INDOOR	Indoor Air Pollution (%)	76.0	*0*	20.0
OZONE_H	Local Ozone (ppb)	9.5	*85*	99.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	766,225.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.5
WATQI	Water Quality (GEMS Water Quality Index score)	65.6	*100*	42.8
WATSTR	Water Stress (%)	20.5	*0*	71.4
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	56.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.2	*10*	21.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	10.8	*0*	87.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	1.5	*0*	88.8
PEST	Pesticide Regulation (points)	18.0	*22*	81.8
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.6	*2.24*	93.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	82.0	*0*	91.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	8.1	*0.85*	-0.0

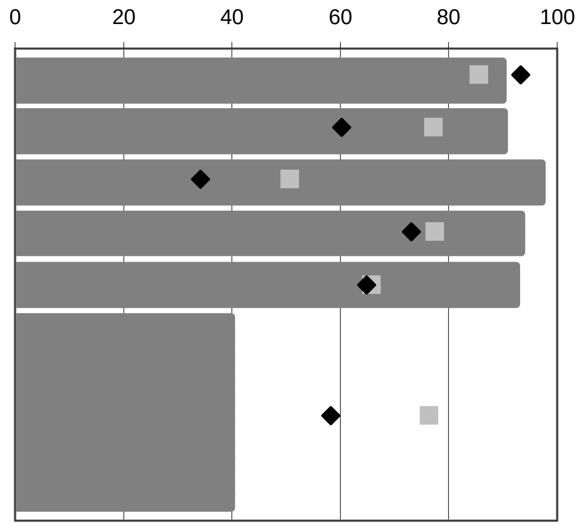
Laos

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $2,013
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	101
Score:	66.3
Income Group Avg.	60.2
Geographic Group Avg.	72.2

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	90.0	93.3	85.6
Water (eco)	90.2	60.3	77.3
Biodiv. and Habitat	97.1	34.2	50.7
Prod. Nat. Resources	93.4	73.1	77.4
Climate Change	92.4	64.8	65.8
Environmental Health	39.8	58.3	76.5

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	28.0	*0*	49.5
ACSAT	Adequate Sanitation (%)	30.0	*100*	18.1
WATSUP	Drinking Water (%)	51.0	*100*	16.8
PM10	Urban Particulates ($\mu g/m^3$)	47.36238	*20*	77.0
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	749.5	*85*	59.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	79,587,799.0	*3,000*	80.6
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.4
WATQI	Water Quality (GEMS Water Quality Index score)	88.3	*100*	80.5
WATSTR	Water Stress (%)	0.0	*0*	0.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.4	*10*	94.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	89.7
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.3	*0*	99.6
BURNED	Burned Land Area (%)	0.0	*0*	99.7
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	10.4	*2.24*	84.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	35.5	*0*	96.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.1	*0.85*	96.8

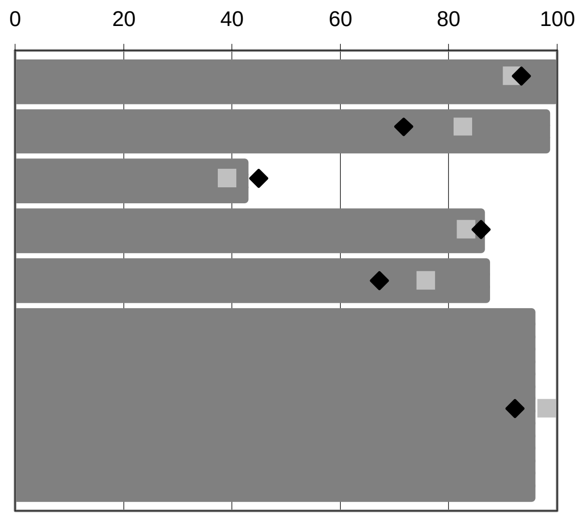
Latvia

EUROPE

GDP/capita 2005 est. (PPP) $13,725
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	8
Score:	88.8
Income Group Avg.	80.5
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.5	93.4	91.7
Water (eco)	98.0	71.7	82.7
Biodiv. and Habitat	42.4	44.9	39.1
Prod. Nat. Resources	86.0	85.9	83.3
Climate Change	86.9	67.3	75.8
Environmental Health	95.2	92.2	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.3	*0*	99.5
ACSAT	Adequate Sanitation (%)	78.0	*100*	74.3
WATSUP	Drinking Water (%)	99.0	*100*	98.3
PM10	Urban Particulates (μg/m^3)	15.85056	*20*	100.0
INDOOR	Indoor Air Pollution (%)	10.2	*0*	89.3
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.4	*0*	99.0
WATQI	Water Quality (GEMS Water Quality Index score)	97.6	*100*	96.0
WATSTR	Water Stress (%)	0.0	*0*	78.8
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	61.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.2	*10*	42.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	65.1
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	85.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	23.6	*0*	49.5
AGINT	Intensive Cropland (CIESIN, %)	17.8	*0*	71.9
BURNED	Burned Land Area (%)	0.3	*0*	98.0
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.7	*2.24*	93.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	162.0	*0*	82.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.9	*0.85*	84.8

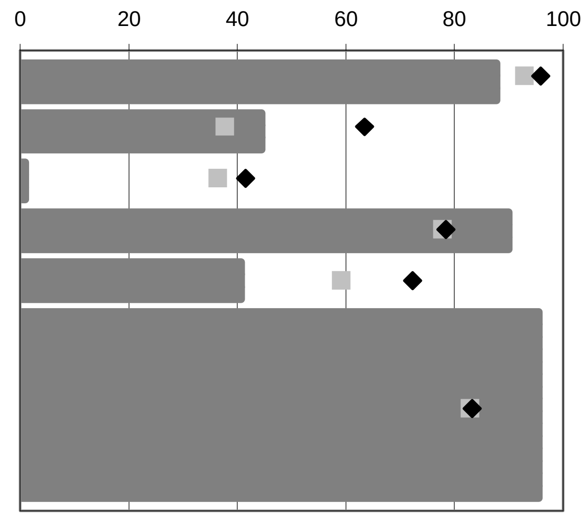
Lebanon

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $4,876
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	90
Score:	70.3
Income Group Avg.	75.8
Geographic Group Avg.	70.0

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	87.8	95.8	92.9
Water (eco)	44.5	63.4	37.8
Biodiv. and Habitat	1.0	41.5	36.5
Prod. Nat. Resources	90.0	78.4	77.8
Climate Change	40.7	72.3	59.2
Environmental Health	95.5	83.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	2.0	*0*	96.4
ACSAT	Adequate Sanitation (%)	98.0	*100*	97.7
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates ($\mu g/m^3$)	41.839	*20*	81.6
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	10.3	*0*	75.5
WATQI	Water Quality (GEMS Water Quality Index score)	39.9	*100*	0.0
WATSTR	Water Stress (%)	10.0	*0*	97.2
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	2.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	65.1
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	91.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.9	*0*	98.9
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	14.5	*0*	77.0
BURNED	Burned Land Area (%)	0.9	*0*	93.3
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.4	*2.24*	93.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	667.0	*0*	28.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	8.1	*0.85*	-0.0

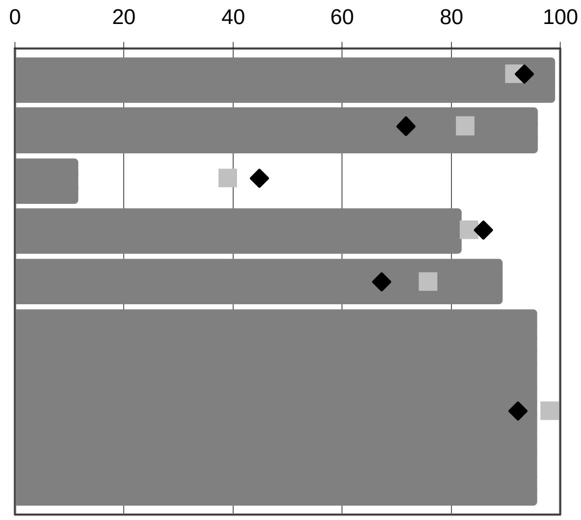
Lithuania

EUROPE

GDP/capita 2005 est. (PPP) $14,020
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	16
Score:	86.2
Income Group Avg.	80.5
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.4	93.4	91.7
Water (eco)	95.1	71.7	82.7
Biodiv. and Habitat	11.0	44.9	39.1
Prod. Nat. Resources	81.2	85.9	83.3
Climate Change	88.7	67.3	75.8
Environmental Health	95.1	92.2	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	86.2	*100*	83.9
WATSUP	Drinking Water (%)	93.0	*100*	88.1
PM10	Urban Particulates (µg/m^3)	10.09698	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.4	*0*	96.7
WATQI	Water Quality (GEMS Water Quality Index score)	97.7	*100*	96.2
WATSTR	Water Stress (%)	5.4	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	13.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.7	*10*	7.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	2.6	*10*	26.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	77.9
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.5	*0*	50.3
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	21.1	*0*	54.8
AGINT	Intensive Cropland (CIESIN, %)	35.5	*0*	43.9
BURNED	Burned Land Area (%)	0.2	*0*	98.2
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	6.5	*2.24*	91.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	130.0	*0*	86.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.6	*0.85*	88.4

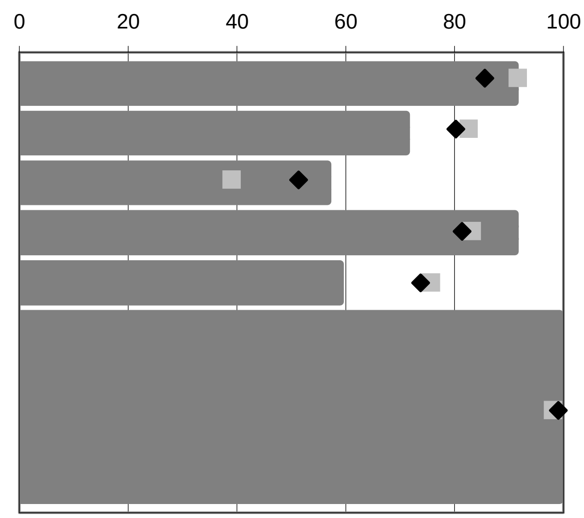
Luxembourg

EUROPE

GDP/capita 2005 est. (PPP) $59,853
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	31
Score:	83.1
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	91.1	85.6	91.7
Water (eco)	71.1	80.3	82.7
Biodiv. and Habitat	56.7	51.4	39.1
Prod. Nat. Resources	91.1	81.3	83.3
Climate Change	59.0	73.8	75.8
Environmental Health	99.3	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	17.5471	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	10.6	*85*	99.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	64,060.2	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	7.5	*0*	82.3
WATQI	Water Quality (GEMS Water Quality Index score)	65.3	*100*	42.3
WATSTR	Water Stress (%)	0.0	*0*	85.3
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	66.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.7	*10*	46.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	1.0	*0*	92.4
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	25.9	*2.24*	54.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	328.0	*0*	64.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.7	*0.85*	57.9

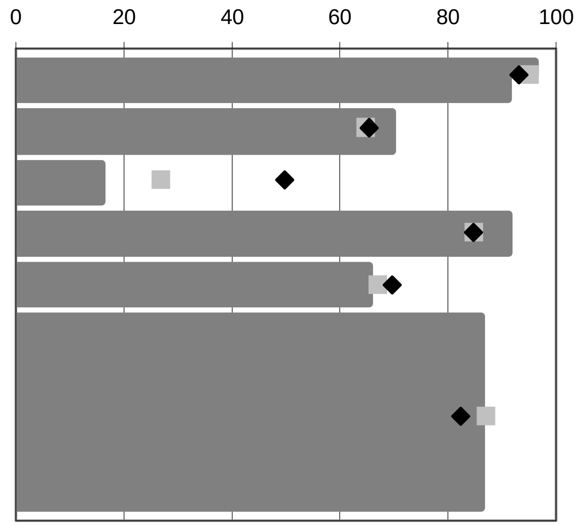
Macedonia

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $6,580
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	74
Score:	75.1
Income Group Avg.	75.9
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.1	93.2	95.1
Water (eco)	69.7	65.4	64.8
Biodiv. and Habitat	15.8	49.7	26.9
Prod. Nat. Resources	91.2	84.7	84.8
Climate Change	65.5	69.7	67.1
Environmental Health	86.1	82.4	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	4.0	*0*	92.8
ACSAT	Adequate Sanitation (%)	73.2	*100*	68.6
WATSUP	Drinking Water (%)	85.1	*100*	74.8
PM10	Urban Particulates (µg/m^3)	20.35728	*20*	99.7
INDOOR	Indoor Air Pollution (%)	30.0	*0*	68.4
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	3.3	*0*	92.2
WATQI	Water Quality (GEMS Water Quality Index score)	63.6	*100*	39.4
WATSTR	Water Stress (%)	0.0	*0*	17.2
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	20.2
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.1	*10*	11.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	4.5	*0*	67.0
PEST	Pesticide Regulation (points)	10.0	*22*	45.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.2	*2.24*	94.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	645.0	*0*	30.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.8	*0.85*	71.6

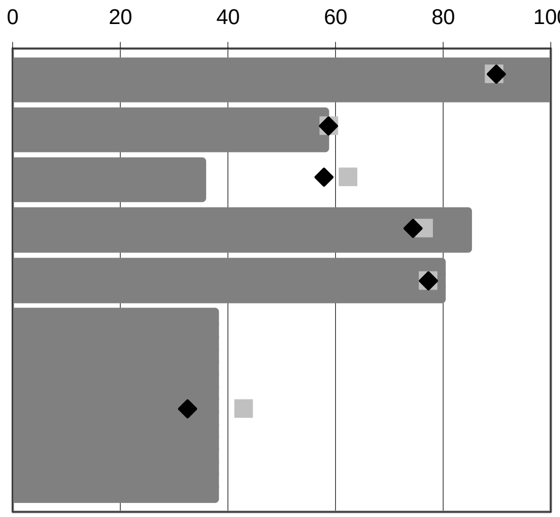
Madagascar

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $840
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	133
Score:	54.6
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.8	89.9	89.6
Water (eco)	58.1	58.7	58.8
Biodiv. and Habitat	35.2	57.8	62.3
Prod. Nat. Resources	84.6	74.4	76.4
Climate Change	79.8	77.3	77.2
Environmental Health	37.6	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	33.0	*0*	40.5
ACSAT	Adequate Sanitation (%)	32.0	*100*	20.5
WATSUP	Drinking Water (%)	50.0	*100*	15.1
PM10	Urban Particulates (µg/m^3)	45.35231	*20*	78.7
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.6
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	11.9	*0*	98.0
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	54.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.5	*10*	25.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	59.4	*100*	59.4
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	93.7
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	72.1
IRRSTR	Irrigation Stress (CIESIN, %)	1.9	*0*	97.8
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.7	*0*	98.6
AGINT	Intensive Cropland (CIESIN, %)	0.2	*0*	99.7
BURNED	Burned Land Area (%)	3.9	*0*	71.6
PEST	Pesticide Regulation (points)	16.0	*22*	72.7
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.2	*2.24*	98.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	486.8	*0*	47.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.3	*0.85*	93.7

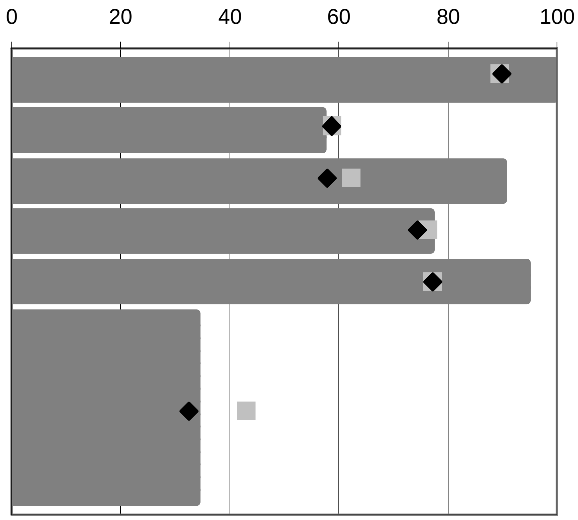
Malawi

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $632
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	121
Score:	59.9
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.6	89.9	89.6
Water (eco)	57.0	58.7	58.8
Biodiv. and Habitat	90.1	57.8	62.3
Prod. Nat. Resources	76.8	74.4	76.4
Climate Change	94.5	77.3	77.2
Environmental Health	34.0	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	47.0	*0*	15.3
ACSAT	Adequate Sanitation (%)	61.0	*100*	54.4
WATSUP	Drinking Water (%)	73.0	*100*	54.2
PM10	Urban Particulates (µg/m^3)	46.46286	*20*	77.7
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	0.8	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	185,559.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.3
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	13.9	*0*	89.3
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	91.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.9	*10*	78.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	100.0	*100*	100.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	79.8
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.3	*0*	99.6
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	1.6	*0*	97.5
BURNED	Burned Land Area (%)	3.8	*0*	72.3
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.4	*2.24*	97.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	96.1	*0*	89.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.1	*0.85*	96.1

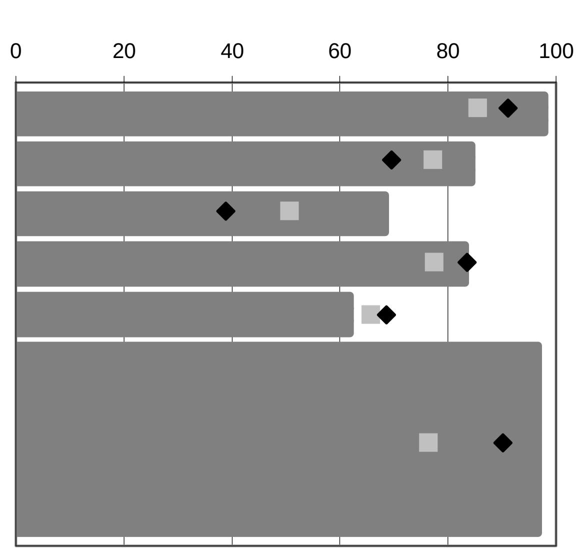
Malaysia

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $10,091
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	26
Score:	84.0
Income Group Avg.	79.0
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.9	91.1	85.6
Water (eco)	84.4	69.6	77.3
Biodiv. and Habitat	68.3	38.9	50.7
Prod. Nat. Resources	83.2	83.6	77.4
Climate Change	61.9	68.6	65.8
Environmental Health	96.7	90.2	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	94.0	*100*	93.0
WATSUP	Drinking Water (%)	99.0	*100*	98.3
PM10	Urban Particulates (µg/m^3)	28.94107	*20*	92.5
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.9	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	380,622.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	1.7	*0*	95.9
WATQI	Water Quality (GEMS Water Quality Index score)	81.7	*100*	69.6
WATSTR	Water Stress (%)	0.7	*0*	74.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	99.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.7	*10*	97.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	66.7	*100*	66.7
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.0	*10*	10.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.9	*0*	5.7
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	1.9	*0*	96.0
AGINT	Intensive Cropland (CIESIN, %)	1.8	*0*	97.1
BURNED	Burned Land Area (%)	0.0	*0*	99.9
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	15.8	*2.24*	73.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	557.0	*0*	40.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.8	*0.85*	72.0

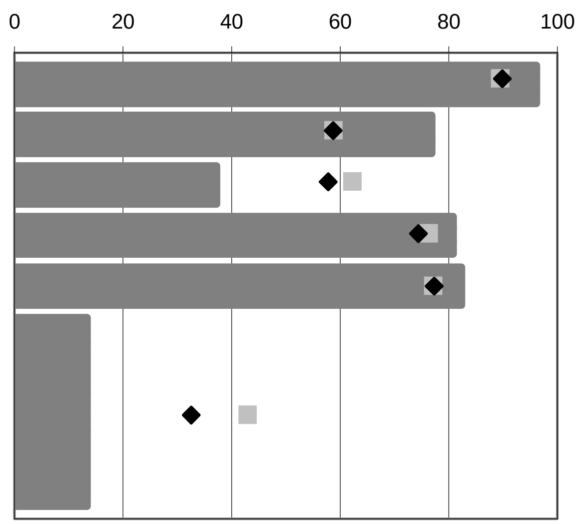
Mali

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $942
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	145
Score:	44.3
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.2	89.9	89.6
Water (eco)	76.9	58.7	58.8
Biodiv. and Habitat	37.2	57.8	62.3
Prod. Nat. Resources	80.8	74.4	76.4
Climate Change	82.4	77.3	77.2
Environmental Health	13.4	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	53.0	*0*	4.5
ACSAT	Adequate Sanitation (%)	46.0	*100*	36.8
WATSUP	Drinking Water (%)	50.0	*100*	15.1
PM10	Urban Particulates (µg/m^3)	165.2039	*20*	0.0
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	127.0	*85*	93.1
OZONE_E	Regional Ozone (tons SO_2 / populated land)	30,218,700.8	*3,000*	92.6
SO2	Sulfur Dioxide Emissions (ppb)	0.1	*0*	99.8
WATQI	Water Quality (GEMS Water Quality Index score)	81.1	*100*	68.6
WATSTR	Water Stress (%)	13.5	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	56.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.8	*10*	17.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	82.9
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	17.0	*0*	80.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.6	*0*	95.9
PEST	Pesticide Regulation (points)	4.0	*22*	18.2
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.5	*2.24*	93.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	432.1	*0*	53.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

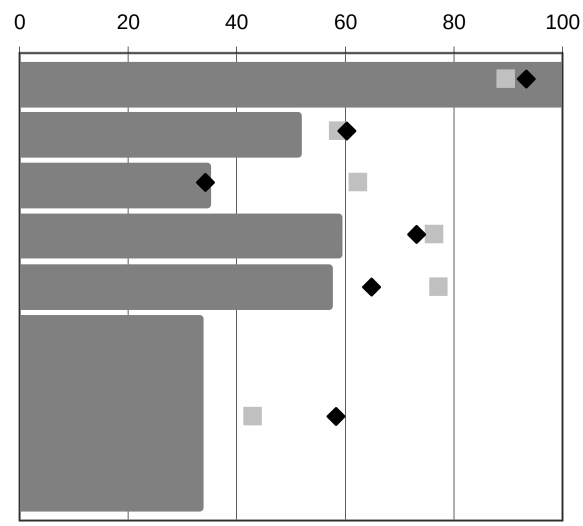
Mauritania

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $2,161
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	146
Score:	44.2
Income Group Avg.	60.2
Geographic Group Avg.	57.9

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	99.8	93.3	89.6
Water (eco)	51.3	60.3	58.8
Biodiv. and Habitat	34.6	34.2	62.3
Prod. Nat. Resources	58.8	73.1	76.4
Climate Change	57.0	64.8	77.2
Environmental Health	33.2	58.3	43.0

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	38.0	*0*	31.5
ACSAT	Adequate Sanitation (%)	34.0	*100*	22.8
WATSUP	Drinking Water (%)	53.0	*100*	20.2
PM10	Urban Particulates (µg/m^3)	103.258	*20*	30.0
INDOOR	Indoor Air Pollution (%)	56.3	*0*	40.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.6
WATQI	Water Quality (GEMS Water Quality Index score)	52.0	*100*	20.1
WATSTR	Water Stress (%)	15.8	*0*	71.9
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	64.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.4	*10*	4.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	4.0	*10*	40.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.8	*0*	30.9
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	84.6
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	68.1
IRRSTR	Irrigation Stress (CIESIN, %)	57.4	*0*	32.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.0	*0*	99.7
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	23.3	*2.24*	59.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	639.6	*0*	31.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.2	*0.85*	80.5

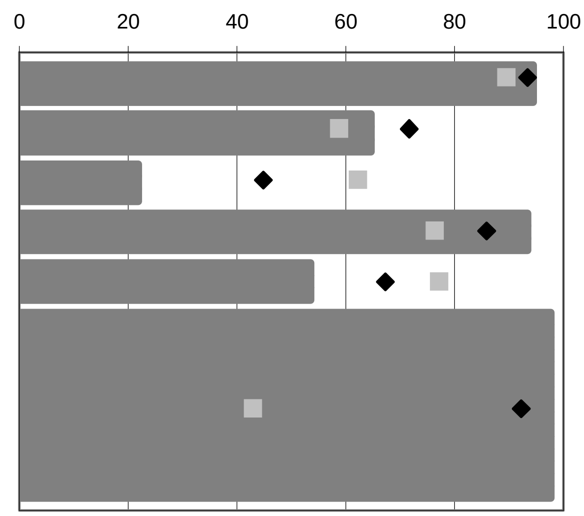
Mauritius

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $11,622
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	58
Score:	78.1
Income Group Avg.	80.5
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	94.4	93.4	89.6
Water (eco)	64.7	71.7	58.8
Biodiv. and Habitat	21.9	44.9	62.3
Prod. Nat. Resources	93.4	85.9	76.4
Climate Change	53.5	67.3	77.2
Environmental Health	97.7	92.2	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	94.0	*100*	93.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	15.9544	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	4.7	*0*	88.8
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	0.0	*0*	76.5
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	12.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	75.0	*100*	75.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	87.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	99.1
IRRSTR	Irrigation Stress (CIESIN, %)		*0*	
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)		*0*	
BURNED	Burned Land Area (%)		*0*	
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	35.0	*2.24*	36.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	625.0	*0*	32.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.5	*0.85*	91.1

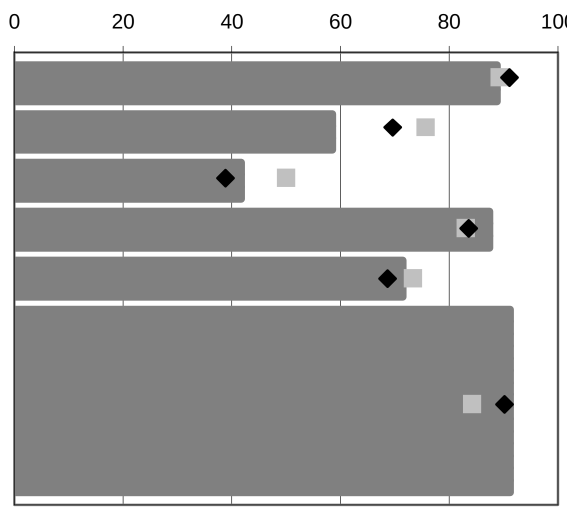
Mexico

AMERICAS

GDP/capita 2005 est. (PPP) $9,967
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	47
Score:	79.8
Income Group Avg.	79.0
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	88.7	91.1	89.3
Water (eco)	58.5	69.6	75.7
Biodiv. and Habitat	41.8	38.9	50.1
Prod. Nat. Resources	87.4	83.6	83.1
Climate Change	71.5	68.6	73.4
Environmental Health	91.3	90.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	2.0	*0*	96.4
ACSAT	Adequate Sanitation (%)	79.0	*100*	75.4
WATSUP	Drinking Water (%)	97.0	*100*	94.9
PM10	Urban Particulates (µg/m^3)	39.32811	*20*	83.7
INDOOR	Indoor Air Pollution (%)	14.2	*0*	85.1
OZONE_H	Local Ozone (ppb)	36.7	*85*	98.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	70,597,002.2	*3,000*	82.8
SO2	Sulfur Dioxide Emissions (ppb)	2.2	*0*	94.7
WATQI	Water Quality (GEMS Water Quality Index score)	71.0	*100*	51.7
WATSTR	Water Stress (%)	31.5	*0*	39.5
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	76.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.8	*10*	48.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	31.0	*100*	31.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.1	*10*	11.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	95.1
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	79.2
IRRSTR	Irrigation Stress (CIESIN, %)	18.4	*0*	78.4
AGSUB	Agricultural Subsidies (% border agricultural prices)	17.0	*0*	63.6
AGINT	Intensive Cropland (CIESIN, %)	9.7	*0*	84.7
BURNED	Burned Land Area (%)	2.8	*0*	79.7
PEST	Pesticide Regulation (points)	18.0	*22*	81.8
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	6.9	*2.24*	91.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	515.0	*0*	44.5
CO2IND	Industrial Carbon Intensity (CO_2 per \$1000, USD 1995 PPP)	2.3	*0.85*	78.9

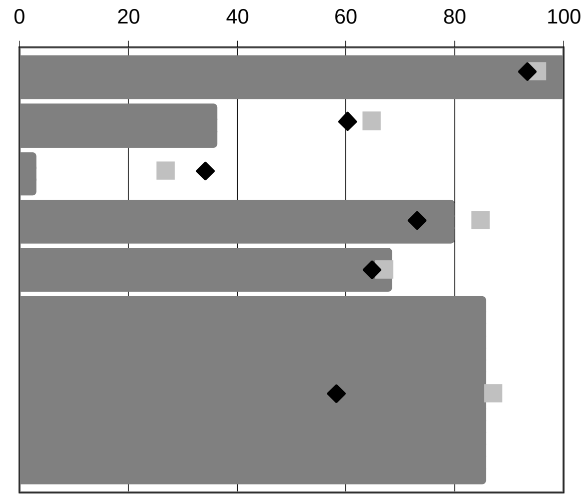
Moldova

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $2,151
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	87
Score:	70.7
Income Group Avg.	60.2
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.5	93.3	95.1
Water (eco)	35.7	60.3	64.8
Biodiv. and Habitat	2.4	34.2	26.9
Prod. Nat. Resources	79.2	73.1	84.8
Climate Change	67.8	64.8	67.1
Environmental Health	85.0	58.3	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.4	*0*	99.3
ACSAT	Adequate Sanitation (%)	68.0	*100*	62.6
WATSUP	Drinking Water (%)	92.0	*100*	86.4
PM10	Urban Particulates (µg/m^3)	38.90582	*20*	84.1
INDOOR	Indoor Air Pollution (%)	63.0	*0*	33.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.4	*0*	99.1
WATQI	Water Quality (GEMS Water Quality Index score)	58.9	*100*	31.7
WATSTR	Water Stress (%)	54.7	*0*	73.3
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	3.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.2	*10*	1.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	2.6	*0*	97.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	80.9	*0*	0.0
BURNED	Burned Land Area (%)	13.7	*0*	0.0
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.0	*2.24*	98.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	516.0	*0*	44.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.6	*0.85*	60.3

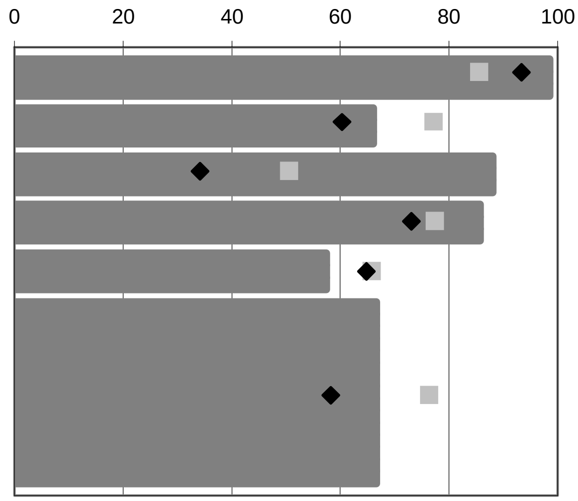
Mongolia

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $2,034
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	100
Score:	68.1
Income Group Avg.	60.2
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.5	93.3	85.6
Water (eco)	66.1	60.3	77.3
Biodiv. and Habitat	88.0	34.2	50.7
Prod. Nat. Resources	85.7	73.1	77.4
Climate Change	57.5	64.8	65.8
Environmental Health	66.6	58.3	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	11.0	*0*	80.2
ACSAT	Adequate Sanitation (%)	59.0	*100*	52.0
WATSUP	Drinking Water (%)	62.0	*100*	35.5
PM10	Urban Particulates (µg/m^3)	68.4402	*20*	59.2
INDOOR	Indoor Air Pollution (%)	51.0	*0*	46.3
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.3	*0*	97.0
WATQI	Water Quality (GEMS Water Quality Index score)	66.7	*100*	44.6
WATSTR	Water Stress (%)	11.3	*0*	96.9
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.6	*10*	76.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	83.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	19.0	*0*	77.7
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.2	*0*	99.8
BURNED	Burned Land Area (%)	1.7	*0*	87.4
PEST	Pesticide Regulation (points)	17.0	*22*	77.3
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	14.7	*2.24*	75.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	533.0	*0*	42.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.0	*0.85*	54.0

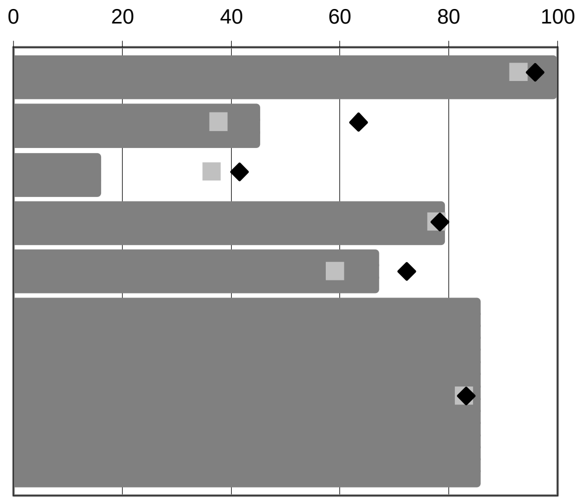
Morocco

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $4,346
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	82
Score:	72.1
Income Group Avg.	75.8
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.2	95.8	92.9
Water (eco)	44.7	63.4	37.8
Biodiv. and Habitat	15.4	41.5	36.5
Prod. Nat. Resources	78.6	78.4	77.8
Climate Change	66.5	72.3	59.2
Environmental Health	85.2	83.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	7.0	*0*	87.4
ACSAT	Adequate Sanitation (%)	73.0	*100*	68.4
WATSUP	Drinking Water (%)	81.0	*100*	67.7
PM10	Urban Particulates (µg/m^3)	19.81108	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.2	*0*	94.5
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.6	*0*	98.5
WATQI	Water Quality (GEMS Water Quality Index score)	65.1	*100*	41.9
WATSTR	Water Stress (%)	47.6	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	30.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.0	*10*	9.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	87.2
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.4	*0*	55.1
IRRSTR	Irrigation Stress (CIESIN, %)	54.2	*0*	36.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	58.7	*0*	7.2
BURNED	Burned Land Area (%)	0.9	*0*	93.7
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.5	*2.24*	99.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	778.0	*0*	16.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.0	*0.85*	83.9

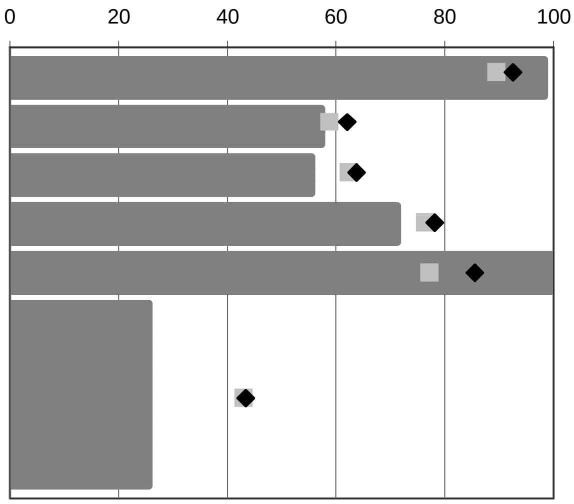
Mozambique

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,162
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	134
Score:	53.9
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.3	92.5	89.6
Water (eco)	57.3	62.0	58.8
Biodiv. and Habitat	55.4	63.8	62.3
Prod. Nat. Resources	71.2	78.1	76.4
Climate Change	99.8	85.5	77.2
Environmental Health	25.5	43.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	47.0	*0*	15.3
ACSAT	Adequate Sanitation (%)	32.0	*100*	20.5
WATSUP	Drinking Water (%)	43.0	*100*	3.2
PM10	Urban Particulates (µg/m^3)	39.06226	*20*	84.0
INDOOR	Indoor Air Pollution (%)	80.0	*0*	15.8
OZONE_H	Local Ozone (ppb)	31.9	*85*	98.3
OZONE_E	Regional Ozone (tons SO_2 / populated land)	11,555,000.3	*3,000*	97.2
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.4
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	13.4	*0*	86.6
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	99.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.3	*10*	92.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	2.0	*10*	20.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	94.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	38.4
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	72.3
IRRSTR	Irrigation Stress (CIESIN, %)	1.5	*0*	98.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.1	*0*	99.9
BURNED	Burned Land Area (%)	11.4	*0*	16.4
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.5	*2.24*	99.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	1.0	*0*	99.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.4	*0.85*	100.0

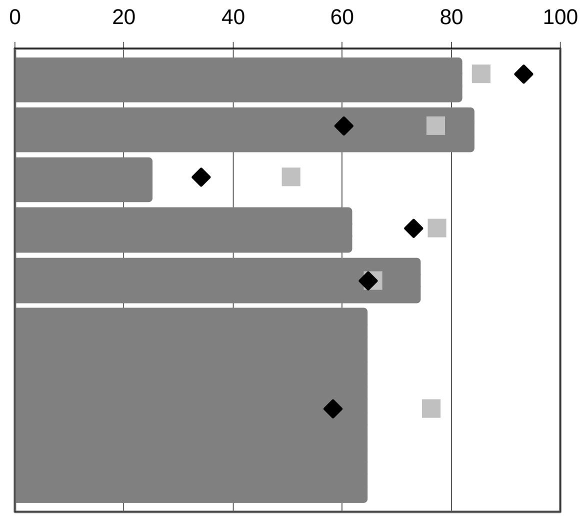
Myanmar

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $1,800
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	104
Score:	65.1
Income Group Avg.	60.2
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	81.4	93.3	85.6
Water (eco)	83.5	60.3	77.3
Biodiv. and Habitat	24.5	34.2	50.7
Prod. Nat. Resources	61.2	73.1	77.4
Climate Change	73.8	64.8	65.8
Environmental Health	63.9	58.3	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	15.0	*0*	73.0
ACSAT	Adequate Sanitation (%)	77.0	*100*	73.1
WATSUP	Drinking Water (%)	78.0	*100*	62.6
PM10	Urban Particulates (µg/m^3)	68.7983	*20*	58.9
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	160.0	*85*	91.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	150,876,999.7	*3,000*	63.2
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.5
WATQI	Water Quality (GEMS Water Quality Index score)	81.5	*100*	69.2
WATSTR	Water Stress (%)	1.9	*0*	88.0
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	29.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.6	*10*	45.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	16.7	*100*	16.7
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	88.9
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	3.3	*0*	96.1
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.2	*0*	99.6
BURNED	Burned Land Area (%)	0.6	*0*	95.3
PEST	Pesticide Regulation (points)	18.0	*22*	81.8
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.8	*2.24*	93.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	365.0	*0*	60.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.1	*0.85*	67.5

2008 Environmental Performance Index

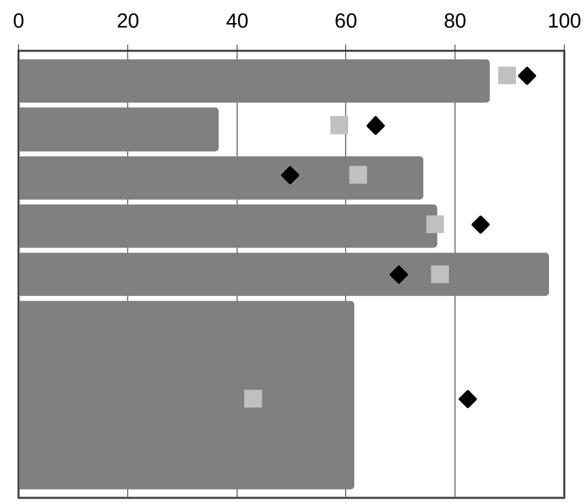
Namibia

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $7,038
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	88
Score:	70.6
Income Group Avg.	75.9
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	85.7	93.2	89.6
Water (eco)	36.0	65.4	58.8
Biodiv. and Habitat	73.4	49.7	62.3
Prod. Nat. Resources	76.1	84.7	76.4
Climate Change	96.5	69.7	77.2
Environmental Health	60.9	82.4	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	13.0	*0*	76.6
ACSAT	Adequate Sanitation (%)	25.0	*100*	12.3
WATSUP	Drinking Water (%)	87.0	*100*	77.9
PM10	Urban Particulates (µg/m^3)	42.60836	*20*	81.0
INDOOR	Indoor Air Pollution (%)	64.5	*0*	32.1
OZONE_H	Local Ozone (ppb)	3,228.0	*85*	0.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	111,887,994.9	*3,000*	72.7
SO2	Sulfur Dioxide Emissions (ppb)	0.6	*0*	98.7
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	52.0	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.8	*10*	97.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	79.6
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.5	*0*	54.8
IRRSTR	Irrigation Stress (CIESIN, %)	43.6	*0*	48.7
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.8	*0*	94.3
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	6.2	*2.24*	92.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	26.0	*0*	97.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.6	*0.85*	100.0

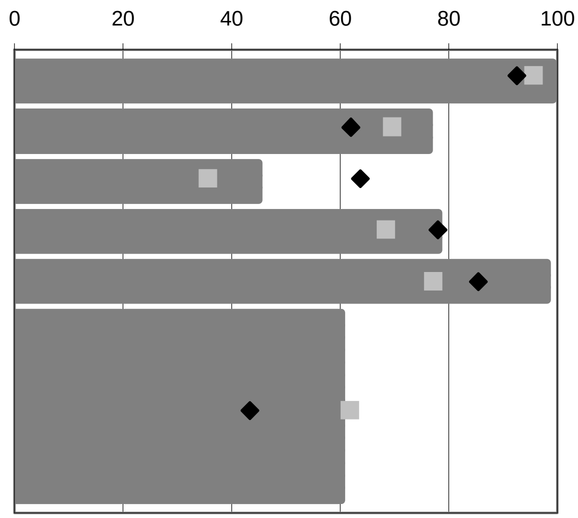
Nepal

SOUTH ASIA

GDP/capita 2005 est. (PPP) $1,379
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	81
Score:	72.1
Income Group Avg.	60.6
Geographic Group Avg.	65.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.2	92.5	95.7
Water (eco)	76.4	62.0	69.7
Biodiv. and Habitat	45.0	63.8	35.7
Prod. Nat. Resources	78.2	78.1	68.5
Climate Change	98.1	85.5	77.2
Environmental Health	60.2	43.3	62.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	20.0	*0*	63.9
ACSAT	Adequate Sanitation (%)	35.0	*100*	24.0
WATSUP	Drinking Water (%)	90.0	*100*	83.0
PM10	Urban Particulates (µg/m^3)	38.69756	*20*	84.3
INDOOR	Indoor Air Pollution (%)	81.0	*0*	14.7
OZONE_H	Local Ozone (ppb)	1.6	*85*	99.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	654,935.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	0.6	*0*	98.5
WATQI	Water Quality (GEMS Water Quality Index score)	72.3	*100*	53.9
WATSTR	Water Stress (%)	0.9	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	40.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.9	*10*	49.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	70.3
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	7.9	*0*	87.5
BURNED	Burned Land Area (%)	2.2	*0*	83.7
PEST	Pesticide Regulation (points)	13.0	*22*	59.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.7	*2.24*	97.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	1.0	*0*	99.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.0	*0.85*	97.3

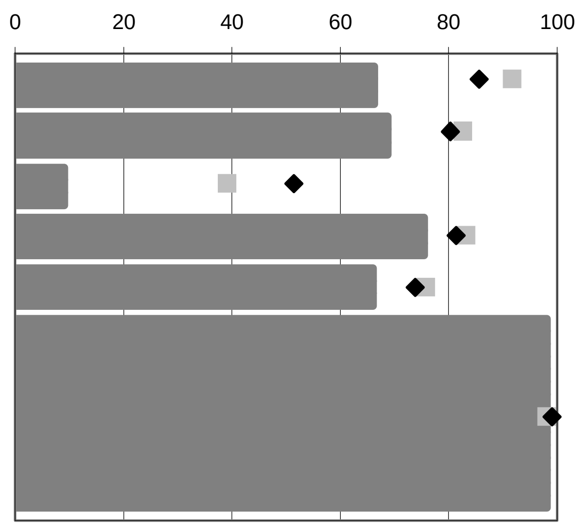
Netherlands

EUROPE

GDP/capita 2005 est. (PPP) $31,306
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	55
Score:	78.7
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	66.3	85.6	91.7
Water (eco)	68.8	80.3	82.7
Biodiv. and Habitat	9.1	51.4	39.1
Prod. Nat. Resources	75.5	81.3	83.3
Climate Change	66.1	73.8	75.8
Environmental Health	98.1	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates ($\mu g/m^3$)	34.10792	*20*	88.1
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	5.4	*85*	99.7
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,116,290.0	*3,000*	99.7
SO2	Sulfur Dioxide Emissions (ppb)	28.4	*0*	32.8
WATQI	Water Quality (GEMS Water Quality Index score)	78.5	*100*	64.2
WATSTR	Water Stress (%)	24.1	*0*	97.2
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	19.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.4	*10*	3.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.4	*10*	4.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	94.4
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	9.4	*0*	85.1
BURNED	Burned Land Area (%)	1.0	*0*	92.9
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	13.6	*2.24*	78.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	387.0	*0*	58.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.5	*0.85*	61.9

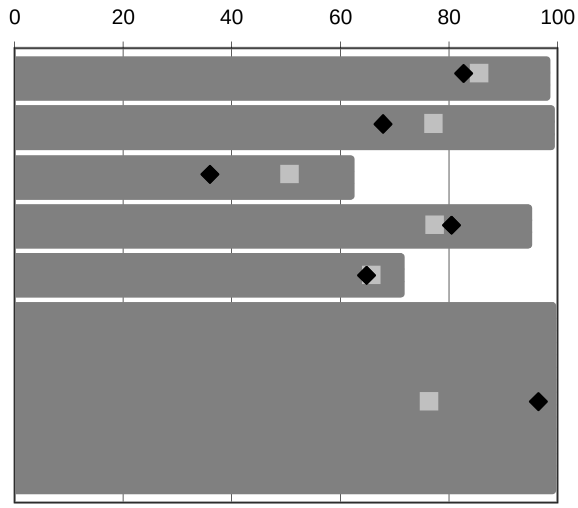
New Zealand

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $23,109
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	7
Score:	88.9
Income Group Avg.	80.4
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.0	82.8	85.6
Water (eco)	98.9	67.9	77.3
Biodiv. and Habitat	61.9	36.0	50.7
Prod. Nat. Resources	94.6	80.5	77.4
Climate Change	71.1	64.8	65.8
Environmental Health	99.0	96.5	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.5	*0*	99.1
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	15.49645	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.7	*0*	96.1
WATQI	Water Quality (GEMS Water Quality Index score)	99.4	*100*	99.0
WATSTR	Water Stress (%)	1.2	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	82.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.5	*10*	84.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	78.6	*100*	78.6
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	72.7
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	3.0	*0*	93.6
AGINT	Intensive Cropland (CIESIN, %)	1.7	*0*	97.4
BURNED	Burned Land Area (%)	0.5	*0*	96.5
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	22.8	*2.24*	60.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	275.0	*0*	70.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.0	*0.85*	82.7

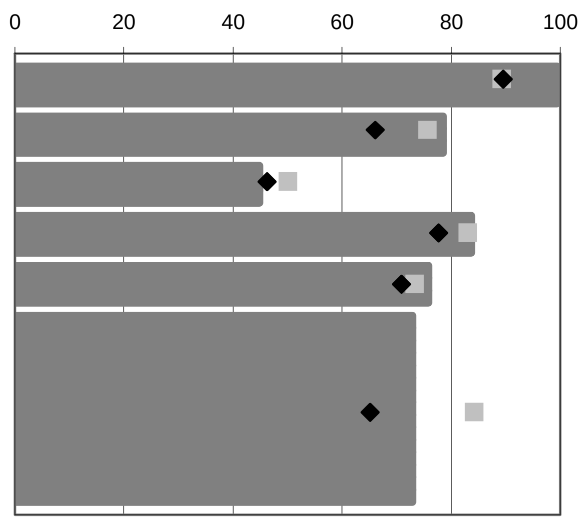
Nicaragua

AMERICAS

GDP/capita 2005 est. (PPP) $3,539
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	77
Score:	73.4
Income Group Avg.	66.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.4	89.6	89.3
Water (eco)	78.5	66.0	75.7
Biodiv. and Habitat	44.8	46.2	50.1
Prod. Nat. Resources	83.6	77.7	83.1
Climate Change	75.9	70.9	73.4
Environmental Health	72.9	65.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	8.0	*0*	85.6
ACSAT	Adequate Sanitation (%)	47.0	*100*	38.0
WATSUP	Drinking Water (%)	79.0	*100*	64.3
PM10	Urban Particulates (µg/m^3)	30.98912	*20*	90.8
INDOOR	Indoor Air Pollution (%)	64.4	*0*	32.2
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.5	*0*	98.9
WATQI	Water Quality (GEMS Water Quality Index score)	74.2	*100*	57.1
WATSTR	Water Stress (%)	0.0	*0*	73.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	70.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.3	*10*	62.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	72.2
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.1	*0*	91.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	4.9	*0*	92.2
BURNED	Burned Land Area (%)	0.2	*0*	98.6
PEST	Pesticide Regulation (points)	5.0	*22*	22.7
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.1	*2.24*	94.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	539.0	*0*	41.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.5	*0.85*	91.2

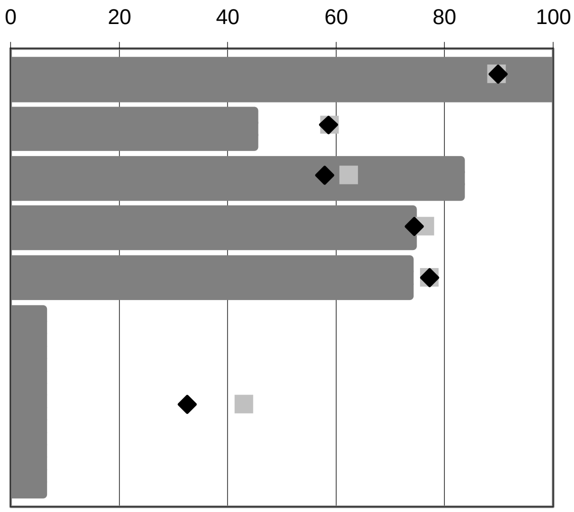
Niger

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $700
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	149
Score:	39.1
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.7	89.9	89.6
Water (eco)	44.9	58.7	58.8
Biodiv. and Habitat	83.0	57.8	62.3
Prod. Nat. Resources	74.1	74.4	76.4
Climate Change	73.6	77.3	77.2
Environmental Health	6.0	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	65.0	*0*	0.0
ACSAT	Adequate Sanitation (%)	13.0	*100*	0.0
WATSUP	Drinking Water (%)	46.0	*100*	8.3
PM10	Urban Particulates (µg/m^3)	144.1617	*20*	0.0
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	7.5	*85*	99.6
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,653,600.0	*3,000*	99.6
SO2	Sulfur Dioxide Emissions (ppb)	0.1	*0*	99.8
WATQI	Water Quality (GEMS Water Quality Index score)	52.8	*100*	21.4
WATSTR	Water Stress (%)	28.7	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	99.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.6	*10*	66.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	82.3
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	55.7	*0*	34.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	40.4	*0*	36.1
BURNED	Burned Land Area (%)	0.0	*0*	99.8
PEST	Pesticide Regulation (points)	13.0	*22*	59.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.2	*2.24*	94.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	648.6	*0*	30.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.1	*0.85*	96.5

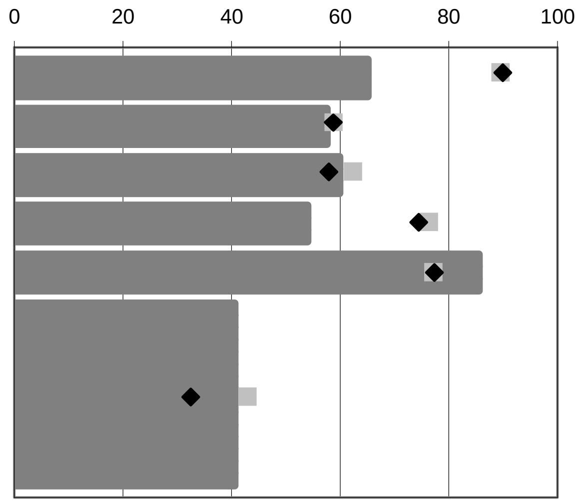
Nigeria

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,008
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	126
Score:	56.2
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	65.1	89.9	89.6
Water (eco)	57.5	58.7	58.8
Biodiv. and Habitat	59.8	57.8	62.3
Prod. Nat. Resources	53.9	74.4	76.4
Climate Change	85.5	77.3	77.2
Environmental Health	40.6	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	32.0	*0*	42.3
ACSAT	Adequate Sanitation (%)	44.0	*100*	34.5
WATSUP	Drinking Water (%)	48.0	*100*	11.7
PM10	Urban Particulates (µg/m^3)	67.00198	*20*	60.5
INDOOR	Indoor Air Pollution (%)	67.0	*0*	29.5
OZONE_H	Local Ozone (ppb)	115.5	*85*	93.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	277,605,007.4	*3,000*	32.3
SO2	Sulfur Dioxide Emissions (ppb)	0.9	*0*	97.9
WATQI	Water Quality (GEMS Water Quality Index score)	52.0	*100*	20.1
WATSTR	Water Stress (%)	4.7	*0*	86.9
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	52.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.1	*10*	41.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	100.0	*100*	100.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	38.8
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	50.7
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.5	*0*	52.2
IRRSTR	Irrigation Stress (CIESIN, %)	5.0	*0*	94.1
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	27.2	*0*	57.0
BURNED	Burned Land Area (%)	1.1	*0*	92.2
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.1	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	403.0	*0*	56.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.6	*0.85*	100.0

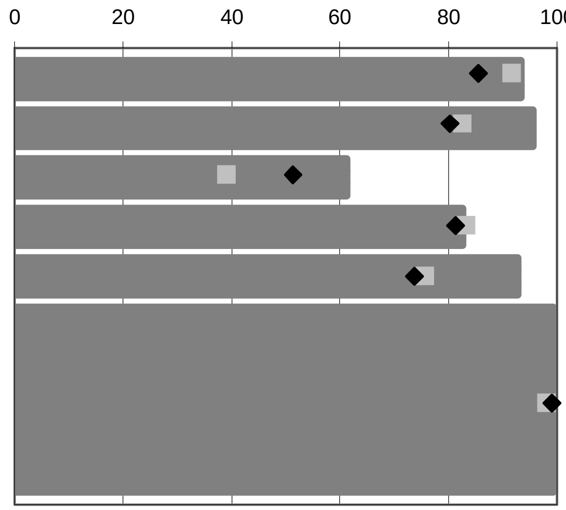
Norway

EUROPE

GDP/capita 2005 est. (PPP) $37,667
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	3
Score:	93.1
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	93.4	85.6	91.7
Water (eco)	95.6	80.3	82.7
Biodiv. and Habitat	61.2	51.4	39.1
Prod. Nat. Resources	82.6	81.3	83.3
Climate Change	92.7	73.8	75.8
Environmental Health	99.3	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	11.54436	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.7	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	28,283.1	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	5.6	*0*	86.8
WATQI	Water Quality (GEMS Water Quality Index score)	94.7	*100*	91.2
WATSTR	Water Stress (%)	0.0	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	81.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	5.9	*10*	59.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	4.3	*10*	43.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	92.8
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.5	*0*	48.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	68.0	*0*	-0.0
AGINT	Intensive Cropland (CIESIN, %)	8.7	*0*	86.2
BURNED	Burned Land Area (%)	0.1	*0*	99.2
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	12.6	*2.24*	79.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	6.0	*0*	99.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.9	*0.85*	98.9

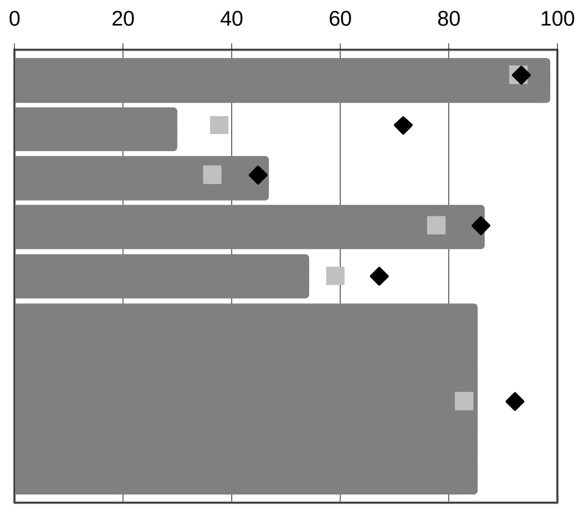
Oman

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $13,887
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	91
Score:	70.3
Income Group Avg.	80.5
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.1	93.4	92.9
Water (eco)	29.3	71.7	37.8
Biodiv. and Habitat	46.1	44.9	36.5
Prod. Nat. Resources	86.0	85.9	77.8
Climate Change	53.6	67.3	59.2
Environmental Health	84.6	92.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	88.0	*100*	86.0
WATSUP	Drinking Water (%)	82.0	*100*	69.4
PM10	Urban Particulates (µg/m^3)	119.5347	*20*	16.3
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.6	*0*	96.1
WATQI	Water Quality (GEMS Water Quality Index score)	39.9	*100*	0.0
WATSTR	Water Stress (%)	37.5	*0*	77.4
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	91.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.2	*10*	91.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	69.0
IRRSTR	Irrigation Stress (CIESIN, %)	30.1	*0*	64.6
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	4.4	*0*	93.1
BURNED	Burned Land Area (%)	0.6	*0*	95.8
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	14.4	*2.24*	76.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	855.0	*0*	7.8
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.5	*0.85*	76.4

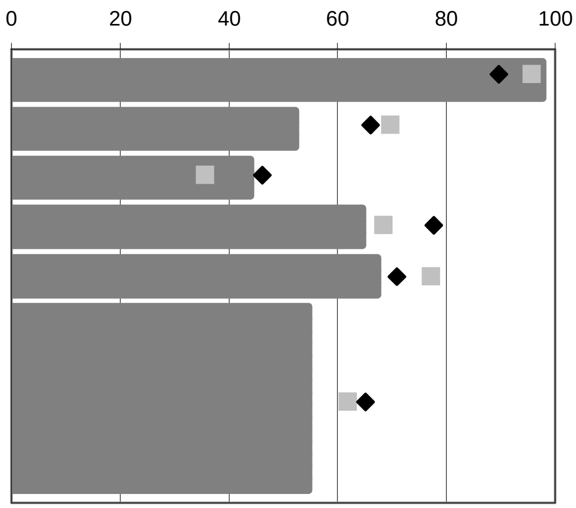
Pakistan

SOUTH ASIA

GDP/capita 2005 est. (PPP) $2,206
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	124
Score:	58.7
Income Group Avg.	66.8
Geographic Group Avg.	65.7

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	97.7	89.6	95.7
Water (eco)	52.2	66.0	69.7
Biodiv. and Habitat	44.0	46.2	35.7
Prod. Nat. Resources	64.6	77.7	68.5
Climate Change	67.4	70.9	77.2
Environmental Health	54.6	65.2	62.0

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	22.0	*0*	60.3
ACSAT	Adequate Sanitation (%)	59.0	*100*	52.0
WATSUP	Drinking Water (%)	91.0	*100*	84.7
PM10	Urban Particulates (µg/m^3)	128.0033	*20*	9.1
INDOOR	Indoor Air Pollution (%)	81.0	*0*	14.7
OZONE_H	Local Ozone (ppb)	4.1	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	8,461,420.2	*3,000*	97.9
SO2	Sulfur Dioxide Emissions (ppb)	1.0	*0*	97.6
WATQI	Water Quality (GEMS Water Quality Index score)	64.7	*100*	41.2
WATSTR	Water Stress (%)	33.4	*0*	97.5
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	95.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.7	*10*	46.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.9	*10*	9.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	46.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	89.2
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	67.8
IRRSTR	Irrigation Stress (CIESIN, %)	4.7	*0*	94.4
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	34.3	*0*	45.8
BURNED	Burned Land Area (%)	0.4	*0*	97.2
PEST	Pesticide Regulation (points)	2.0	*22*	9.1
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.3	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	380.0	*0*	59.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.7	*0.85*	43.1

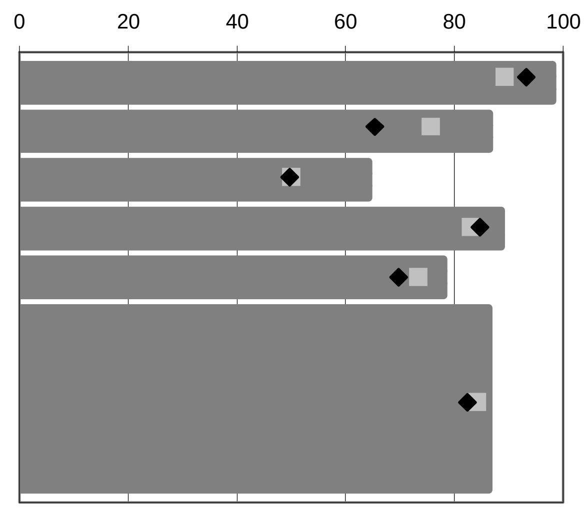
Panama

AMERICAS

GDP/capita 2005 est. (PPP) $7,234
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	32
Score:	83.1
Income Group Avg.	75.9
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.0	93.2	89.3
Water (eco)	86.5	65.4	75.7
Biodiv. and Habitat	64.2	49.7	50.1
Prod. Nat. Resources	88.6	84.7	83.1
Climate Change	78.0	69.7	73.4
Environmental Health	86.4	82.4	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	3.0	*0*	94.6
ACSAT	Adequate Sanitation (%)	73.0	*100*	68.4
WATSUP	Drinking Water (%)	90.0	*100*	83.0
PM10	Urban Particulates (µg/m^3)	36.57449	*20*	86.1
INDOOR	Indoor Air Pollution (%)	33.0	*0*	65.3
OZONE_H	Local Ozone (ppb)	2.9	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	144,498.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.6	*0*	96.1
WATQI	Water Quality (GEMS Water Quality Index score)	85.4	*100*	75.7
WATSTR	Water Stress (%)	2.6	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	93.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.3	*10*	93.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	50.0	*100*	50.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	2.0	*10*	20.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	75.3
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	82.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.0	*0*	99.9
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	7.6	*2.24*	89.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	277.0	*0*	70.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.6	*0.85*	74.0

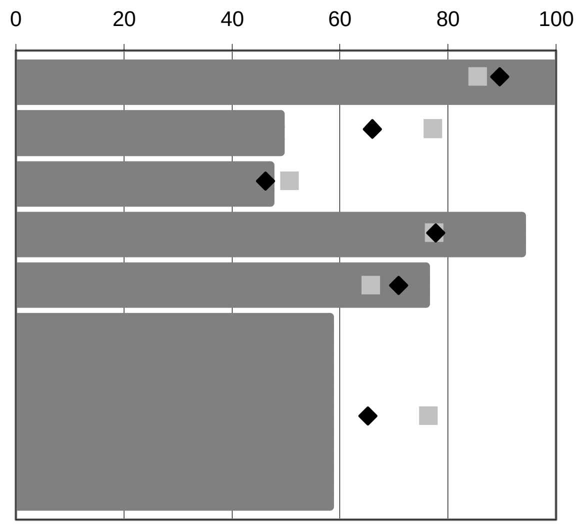
Papua New Guinea

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $2,322
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	109
Score:	64.8
Income Group Avg.	66.8
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.9	89.6	85.6
Water (eco)	49.0	66.0	77.3
Biodiv. and Habitat	47.1	46.2	50.7
Prod. Nat. Resources	93.7	77.7	77.4
Climate Change	75.9	70.9	65.8
Environmental Health	58.2	65.2	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	13.0	*0*	76.6
ACSAT	Adequate Sanitation (%)	44.0	*100*	34.5
WATSUP	Drinking Water (%)	39.0	*100*	0.0
PM10	Urban Particulates (μg/m^3)	19.28586	*20*	100.0
INDOOR	Indoor Air Pollution (%)	89.7	*0*	5.6
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.1	*0*	99.7
WATQI	Water Quality (GEMS Water Quality Index score)	34.0	*100*	0.0
WATSTR	Water Stress (%)	1.8	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	89.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.2	*10*	81.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	16.7	*100*	16.7
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	89.5
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	95.7
IRRSTR	Irrigation Stress (CIESIN, %)		*0*	
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.0	*0*	99.9
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.1	*2.24*	88.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	507.5	*0*	45.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.3	*0.85*	93.6

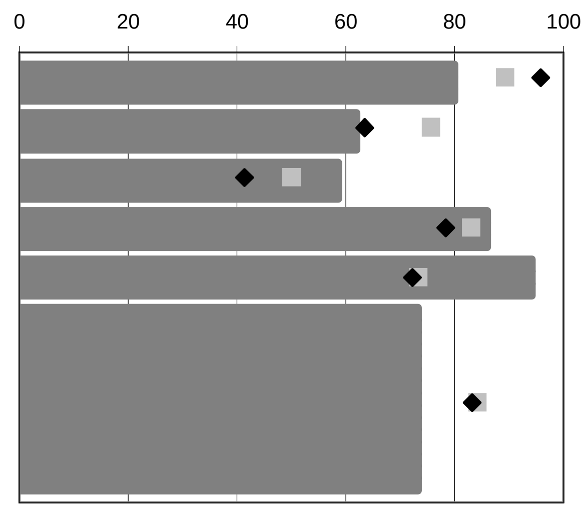
Paraguay

AMERICAS

GDP/capita 2005 est. (PPP) $4,368
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	63
Score:	77.7
Income Group Avg.	75.8
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	80.0	95.8	89.3
Water (eco)	61.9	63.4	75.7
Biodiv. and Habitat	58.5	41.5	50.1
Prod. Nat. Resources	86.0	78.4	83.1
Climate Change	94.2	72.3	73.4
Environmental Health	73.3	83.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	5.0	*0*	91.0
ACSAT	Adequate Sanitation (%)	80.0	*100*	76.6
WATSUP	Drinking Water (%)	86.0	*100*	76.2
PM10	Urban Particulates (µg/m^3)	100.6086	*20*	32.2
INDOOR	Indoor Air Pollution (%)	52.8	*0*	44.4
OZONE_H	Local Ozone (ppb)	1,477.0	*85*	20.3
OZONE_E	Regional Ozone (tons SO_2 / populated land)	159,181,004.8	*3,000*	61.2
SO2	Sulfur Dioxide Emissions (ppb)	0.5	*0*	98.8
WATQI	Water Quality (GEMS Water Quality Index score)	69.7	*100*	49.6
WATSTR	Water Stress (%)	23.5	*0*	85.2
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	69.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.8	*10*	47.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	76.7
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	3.1	*0*	95.0
BURNED	Burned Land Area (%)	1.9	*0*	86.4
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.2	*2.24*	82.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	0.0	*0*	100.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.5	*0.85*	100.0

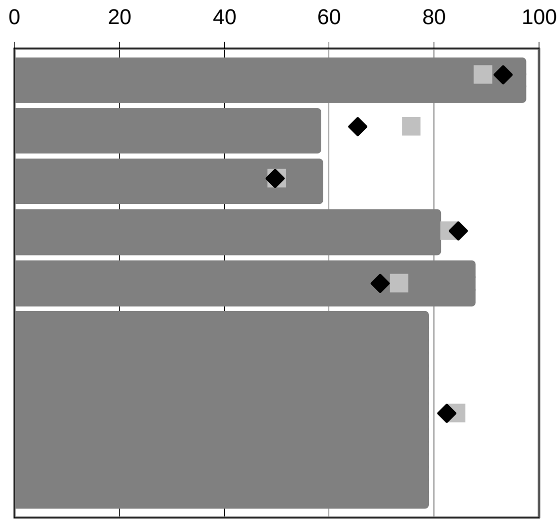
Peru

AMERICAS

GDP/capita 2005 est. (PPP) $5,725
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	60
Score:	78.1
Income Group Avg.	75.9
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.9	93.2	89.3
Water (eco)	57.7	65.4	75.7
Biodiv. and Habitat	58.1	49.7	50.1
Prod. Nat. Resources	80.6	84.7	83.1
Climate Change	87.1	69.7	73.4
Environmental Health	78.3	82.4	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	6.0	*0*	89.2
ACSAT	Adequate Sanitation (%)	63.0	*100*	56.7
WATSUP	Drinking Water (%)	83.0	*100*	71.1
PM10	Urban Particulates (µg/m^3)	64.80054	*20*	62.3
INDOOR	Indoor Air Pollution (%)	33.2	*0*	65.1
OZONE_H	Local Ozone (ppb)	8.2	*85*	99.6
OZONE_E	Regional Ozone (tons SO_2 / populated land)	4,424,150.1	*3,000*	98.9
SO2	Sulfur Dioxide Emissions (ppb)	2.2	*0*	94.8
WATQI	Water Quality (GEMS Water Quality Index score)	60.2	*100*	33.8
WATSTR	Water Stress (%)	16.7	*0*	99.5
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	98.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.0	*10*	79.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	32.3	*100*	32.3
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	51.3
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	77.1
IRRSTR	Irrigation Stress (CIESIN, %)	27.6	*0*	67.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	27.9	*0*	40.2
AGINT	Intensive Cropland (CIESIN, %)	0.1	*0*	99.8
BURNED	Burned Land Area (%)	2.0	*0*	85.1
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	5.4	*2.24*	94.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	198.0	*0*	78.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.6	*0.85*	88.8

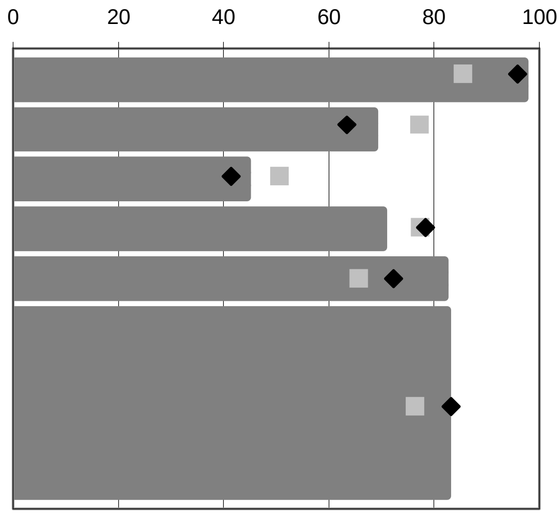
Philippines

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $4,731
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	61
Score:	77.9
Income Group Avg.	75.8
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.2	95.8	85.6
Water (eco)	68.6	63.4	77.3
Biodiv. and Habitat	44.5	41.5	50.7
Prod. Nat. Resources	70.4	78.4	77.4
Climate Change	82.0	72.3	65.8
Environmental Health	82.5	83.2	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	5.0	*0*	91.0
ACSAT	Adequate Sanitation (%)	72.0	*100*	67.3
WATSUP	Drinking Water (%)	85.0	*100*	74.5
PM10	Urban Particulates (µg/m^3)	32.22351	*20*	89.7
INDOOR	Indoor Air Pollution (%)	44.6	*0*	53.1
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	2.3	*0*	94.5
WATQI	Water Quality (GEMS Water Quality Index score)	64.3	*100*	40.6
WATSTR	Water Stress (%)	3.0	*0*	94.1
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	94.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.1	*10*	41.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	36.4	*100*	36.4
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.6	*10*	6.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	57.5
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	85.1
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.5	*0*	52.5
IRRSTR	Irrigation Stress (CIESIN, %)	1.0	*0*	98.9
AGSUB	Agricultural Subsidies (% border agricultural prices)	21.3	*0*	54.4
AGINT	Intensive Cropland (CIESIN, %)	6.9	*0*	89.1
BURNED	Burned Land Area (%)	0.0	*0*	99.9
PEST	Pesticide Regulation (points)	18.0	*22*	81.8
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.1	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	495.0	*0*	46.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.9	*0.85*	99.3

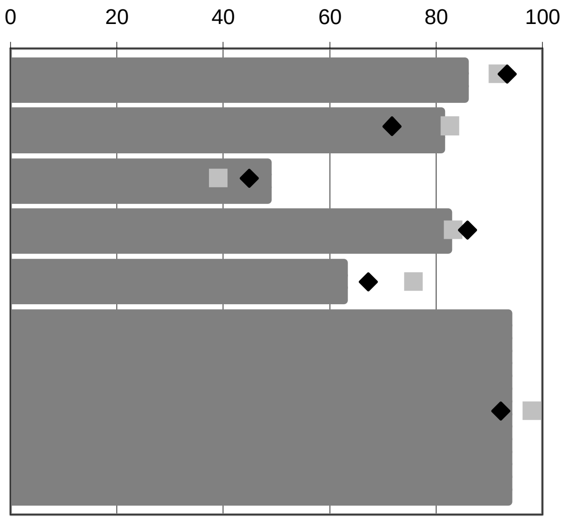
Poland

EUROPE

GDP/capita 2005 est. (PPP) $13,349
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	42
Score:	80.5
Income Group Avg.	80.5
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	85.5	93.4	91.7
Water (eco)	81.0	71.7	82.7
Biodiv. and Habitat	48.4	44.9	39.1
Prod. Nat. Resources	82.3	85.9	83.3
Climate Change	62.7	67.3	75.8
Environmental Health	93.6	92.2	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	86.5	*100*	84.2
WATSUP	Drinking Water (%)	93.2	*100*	88.4
PM10	Urban Particulates (µg/m^3)	37.99077	*20*	84.9
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.5	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	219,505.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	12.2	*0*	71.0
WATQI	Water Quality (GEMS Water Quality Index score)	80.8	*100*	68.1
WATSTR	Water Stress (%)	5.6	*0*	98.7
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	67.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	3.3	*10*	33.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.7	*10*	7.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	66.1
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.4	*0*	58.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	4.8	*0*	89.8
AGINT	Intensive Cropland (CIESIN, %)	37.5	*0*	40.7
BURNED	Burned Land Area (%)	0.6	*0*	95.9
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	10.3	*2.24*	84.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	659.0	*0*	29.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.6	*0.85*	74.5

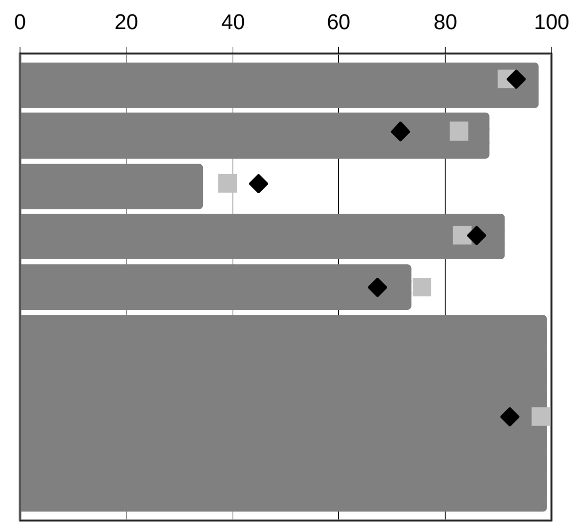
Portugal

EUROPE

GDP/capita 2005 est. (PPP) $18,966
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	18
Score:	85.8
Income Group Avg.	80.5
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.8	93.4	91.7
Water (eco)	87.6	71.7	82.7
Biodiv. and Habitat	33.7	44.9	39.1
Prod. Nat. Resources	90.5	85.9	83.3
Climate Change	72.9	67.3	75.8
Environmental Health	98.4	92.2	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.5	*0*	99.1
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates ($\mu g/m^3$)	26.15393	*20*	94.8
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	24.5	*85*	98.7
OZONE_E	Regional Ozone (tons SO_2 / populated land)	3,769,160.0	*3,000*	99.1
SO2	Sulfur Dioxide Emissions (ppb)	2.3	*0*	94.6
WATQI	Water Quality (GEMS Water Quality Index score)	91.7	*100*	86.2
WATSTR	Water Stress (%)	10.0	*0*	81.8
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	26.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.7	*10*	7.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	100.0	*100*	100.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	95.1
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	35.9	*0*	23.0
AGINT	Intensive Cropland (CIESIN, %)	19.5	*0*	69.2
BURNED	Burned Land Area (%)	2.4	*0*	82.5
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.0	*2.24*	88.9
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	498.0	*0*	46.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.0	*0.85*	83.5

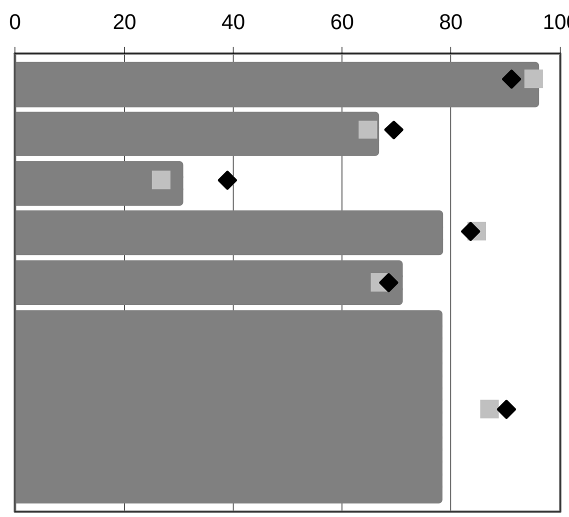
Romania

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $8,722
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	83
Score:	71.9
Income Group Avg.	79.0
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	95.5	91.1	95.1
Water (eco)	66.2	69.6	64.8
Biodiv. and Habitat	30.1	38.9	26.9
Prod. Nat. Resources	77.8	83.6	84.8
Climate Change	70.4	68.6	67.1
Environmental Health	77.8	90.2	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	4.0	*0*	92.8
ACSAT	Adequate Sanitation (%)	51.5	*100*	43.3
WATSUP	Drinking Water (%)	57.0	*100*	27.0
PM10	Urban Particulates (µg/m^3)	16.00801	*20*	100.0
INDOOR	Indoor Air Pollution (%)	22.9	*0*	75.9
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	13,457.7	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	3.8	*0*	90.9
WATQI	Water Quality (GEMS Water Quality Index score)	70.7	*100*	51.3
WATSTR	Water Stress (%)	17.2	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	32.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.2	*10*	22.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	7.1	*10*	71.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	48.2
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	98.1
IRRSTR	Irrigation Stress (CIESIN, %)	7.2	*0*	91.6
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.1	*0*	22.7
AGINT	Intensive Cropland (CIESIN, %)	42.3	*0*	33.1
BURNED	Burned Land Area (%)	6.2	*0*	54.4
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	6.1	*2.24*	92.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	394.0	*0*	57.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.5	*0.85*	61.2

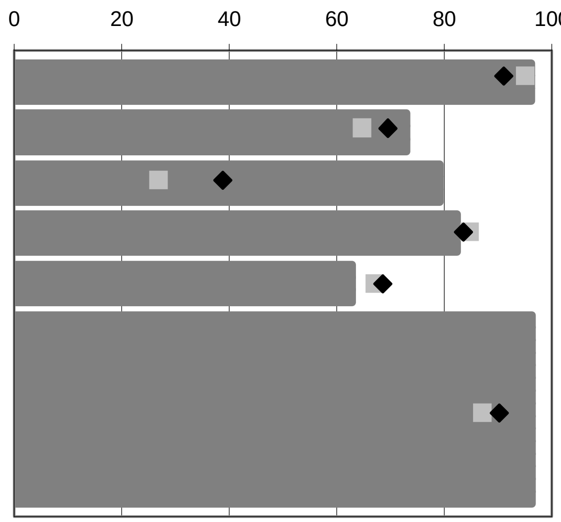
Russia

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $10,350
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	28
Score:	83.9
Income Group Avg.	79.0
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.1	91.1	95.1
Water (eco)	73.0	69.6	64.8
Biodiv. and Habitat	79.2	38.9	26.9
Prod. Nat. Resources	82.3	83.6	84.8
Climate Change	62.9	68.6	67.1
Environmental Health	96.3	90.2	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.3	*0*	99.5
ACSAT	Adequate Sanitation (%)	87.0	*100*	84.8
WATSUP	Drinking Water (%)	97.0	*100*	94.9
PM10	Urban Particulates (µg/m^3)	20.0213	*20*	100.0
INDOOR	Indoor Air Pollution (%)	8.8	*0*	90.7
OZONE_H	Local Ozone (ppb)	0.5	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	827,506.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	3.2	*0*	92.5
WATQI	Water Quality (GEMS Water Quality Index score)	68.9	*100*	48.3
WATSTR	Water Stress (%)	2.1	*0*	81.6
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	87.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.4	*10*	74.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	100.0	*100*	100.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	2.6	*10*	26.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	83.9
IRRSTR	Irrigation Stress (CIESIN, %)	3.2	*0*	96.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	5.8	*0*	87.5
AGINT	Intensive Cropland (CIESIN, %)	27.2	*0*	57.0
BURNED	Burned Land Area (%)	3.4	*0*	74.6
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	15.5	*2.24*	74.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	338.0	*0*	63.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.2	*0.85*	50.7

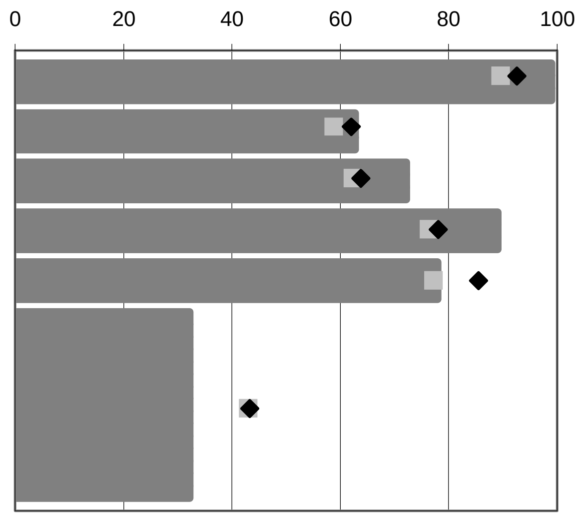
Rwanda

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,105
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	131
Score:	54.9
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.0	92.5	89.6
Water (eco)	62.8	62.0	58.8
Biodiv. and Habitat	72.2	63.8	62.3
Prod. Nat. Resources	89.0	78.1	76.4
Climate Change	78.0	85.5	77.2
Environmental Health	32.2	43.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	47.0	*0*	15.3
ACSAT	Adequate Sanitation (%)	42.0	*100*	32.2
WATSUP	Drinking Water (%)	74.0	*100*	55.9
PM10	Urban Particulates (µg/m^3)	36.73389	*20*	85.9
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	4.3	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	668,937.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	0.8	*0*	98.1
WATQI	Water Quality (GEMS Water Quality Index score)	55.3	*100*	25.6
WATSTR	Water Stress (%)	0.0	*0*	99.6
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	74.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.0	*10*	69.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	2.5	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	13.4	*0*	78.8
BURNED	Burned Land Area (%)	0.9	*0*	93.2
PEST	Pesticide Regulation (points)	4.0	*22*	18.2
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.5	*2.24*	95.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	572.4	*0*	38.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

Saudi Arabia

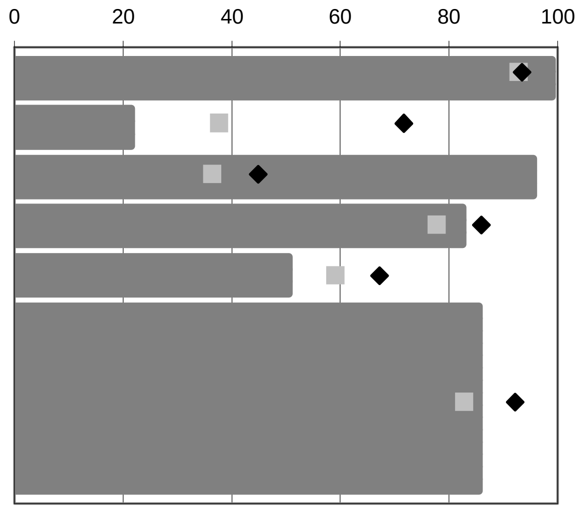
MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $14,769
Income Decile 3 (1=high, 10=low)

2008 EPI

Rank:	78
Score:	72.8
Income Group Avg.	80.5
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.9	93.4	92.9
Water (eco)	21.5	71.7	37.8
Biodiv. and Habitat	95.5	44.9	36.5
Prod. Nat. Resources	82.5	85.9	77.8
Climate Change	50.5	67.3	59.2
Environmental Health	85.5	92.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	87.4	*100*	85.3
WATSUP	Drinking Water (%)	92.0	*100*	86.4
PM10	Urban Particulates (µg/m^3)	133.2519	*20*	4.7
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	1.7	*85*	99.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	655,933.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	0.8	*0*	98.1
WATQI	Water Quality (GEMS Water Quality Index score)	39.9	*100*	0.0
WATSTR	Water Stress (%)	51.6	*0*	68.4
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	10.0	*10*	100.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	2.0	*10*	20.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.4	*0*	55.5
IRRSTR	Irrigation Stress (CIESIN, %)	98.3	*0*	-0.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	24.6	*0*	61.2
BURNED	Burned Land Area (%)	0.4	*0*	97.2
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	17.6	*2.24*	70.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	748.0	*0*	19.4
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.5	*0.85*	61.8

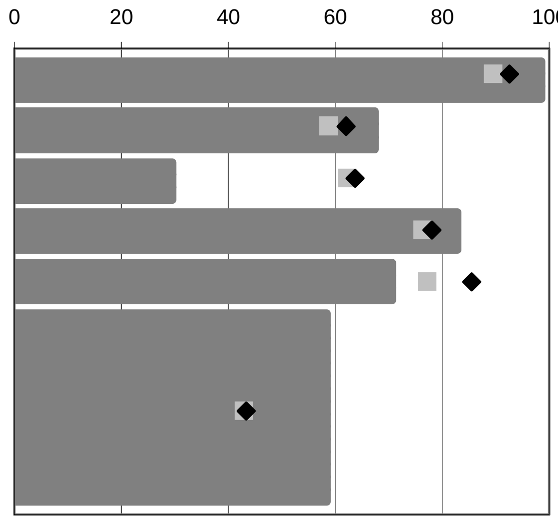
Senegal

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,599
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	115
Score:	62.8
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.6	92.5	89.6
Water (eco)	67.4	62.0	58.8
Biodiv. and Habitat	29.5	63.8	62.3
Prod. Nat. Resources	82.9	78.1	76.4
Climate Change	70.7	85.5	77.2
Environmental Health	58.4	43.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	22.0	*0*	60.3
ACSAT	Adequate Sanitation (%)	57.0	*100*	49.7
WATSUP	Drinking Water (%)	76.0	*100*	59.3
PM10	Urban Particulates (μg/m^3)	75.74977	*20*	53.1
INDOOR	Indoor Air Pollution (%)	53.0	*0*	44.2
OZONE_H	Local Ozone (ppb)	47.0	*85*	97.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	9,263,680.0	*3,000*	97.7
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.4
WATQI	Water Quality (GEMS Water Quality Index score)	69.7	*100*	49.6
WATSTR	Water Stress (%)	13.4	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	39.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.4	*10*	44.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.4	*10*	4.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	89.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	92.8
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	73.9
IRRSTR	Irrigation Stress (CIESIN, %)	1.2	*0*	98.6
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	2.4	*0*	96.2
BURNED	Burned Land Area (%)	4.5	*0*	67.0
PEST	Pesticide Regulation (points)	4.0	*22*	18.2
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.0	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	634.0	*0*	31.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.2	*0.85*	80.5

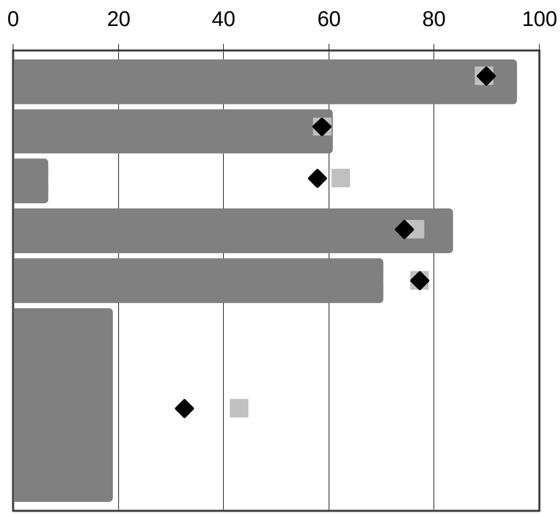
Sierra Leone

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $753
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	147
Score:	40.0
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	95.0	89.9	89.6
Water (eco)	60.1	58.7	58.8
Biodiv. and Habitat	6.0	57.8	62.3
Prod. Nat. Resources	82.9	74.4	76.4
Climate Change	69.6	77.3	77.2
Environmental Health	18.2	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	78.0	*0*	0.0
ACSAT	Adequate Sanitation (%)	39.0	*100*	28.7
WATSUP	Drinking Water (%)	57.0	*100*	27.0
PM10	Urban Particulates (µg/m^3)	55.68177	*20*	70.0
INDOOR	Indoor Air Pollution (%)	92.0	*0*	3.2
OZONE_H	Local Ozone (ppb)	407.3	*85*	78.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	37,470,000.6	*3,000*	90.9
SO2	Sulfur Dioxide Emissions (ppb)	0.4	*0*	99.1
WATQI	Water Quality (GEMS Water Quality Index score)	52.0	*100*	20.1
WATSTR	Water Stress (%)	0.0	*0*	97.7
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	12.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.5	*10*	5.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	84.1
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	73.7
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	2.1	*0*	84.9
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	7.7	*2.24*	89.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	648.6	*0*	30.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.6	*0.85*	89.4

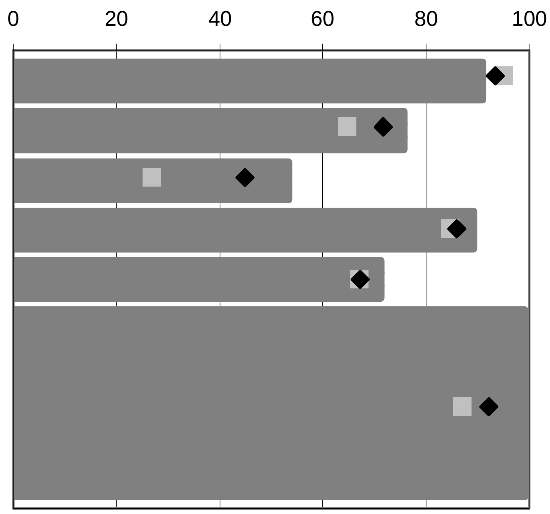
Slovakia

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $15,409
Income Decile 3 (1=high, 10=low)

2008 EPI	
Rank:	17
Score:	86.0
Income Group Avg.	80.5
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	90.9	93.4	95.1
Water (eco)	75.7	71.7	64.8
Biodiv. and Habitat	53.5	44.9	26.9
Prod. Nat. Resources	89.3	85.9	84.8
Climate Change	71.2	67.3	67.1
Environmental Health	99.1	92.2	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	99.0	*100*	98.8
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	15.67181	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	7.7	*0*	81.8
WATQI	Water Quality (GEMS Water Quality Index score)	70.7	*100*	51.3
WATSTR	Water Stress (%)	0.0	*0*	88.2
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	59.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.7	*10*	47.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	20.2	*0*	56.7
AGINT	Intensive Cropland (CIESIN, %)	30.4	*0*	51.9
BURNED	Burned Land Area (%)	2.2	*0*	83.9
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	9.3	*2.24*	86.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	232.0	*0*	75.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.1	*0.85*	52.3

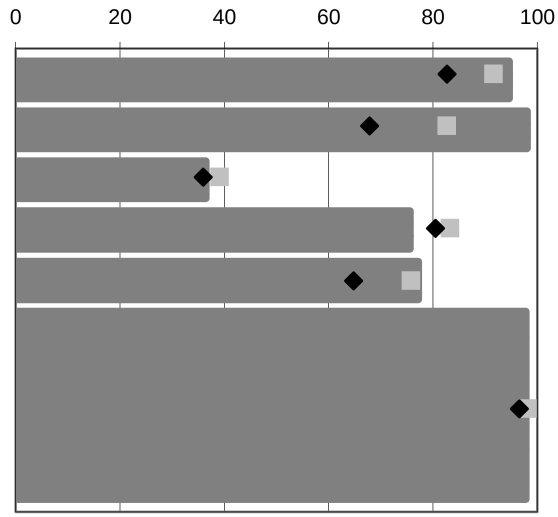
Slovenia

EUROPE

GDP/capita 2005 est. (PPP) $20,890
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	15
Score:	86.3
Income Group Avg.	80.4
Geographic Group Avg.	85.7

Policy Categories



	Country	◆ Income Group	Geographic Group
Air Pollution (eco)	94.6	82.8	91.7
Water (eco)	98.0	67.9	82.7
Biodiv. and Habitat	36.5	36.0	39.1
Prod. Nat. Resources	75.6	80.5	83.3
Climate Change	77.2	64.8	75.8
Environmental Health	97.8	96.5	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.5	*0*	99.1
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (μg/m^3)	30.49015	*20*	91.2
INDOOR	Indoor Air Pollution (%)	8.0	*0*	91.6
OZONE_H	Local Ozone (ppb)	18.0	*85*	99.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	591,641.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	4.5	*0*	89.3
WATQI	Water Quality (GEMS Water Quality Index score)	97.6	*100*	96.0
WATSTR	Water Stress (%)	0.0	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	60.4
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.3	*10*	13.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.5	*10*	5.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	42.0	*0*	10.0
AGINT	Intensive Cropland (CIESIN, %)	2.3	*0*	96.3
BURNED	Burned Land Area (%)	1.2	*0*	91.4
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	10.3	*2.24*	84.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	328.0	*0*	64.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.1	*0.85*	82.4

2008 Environmental Performance Index

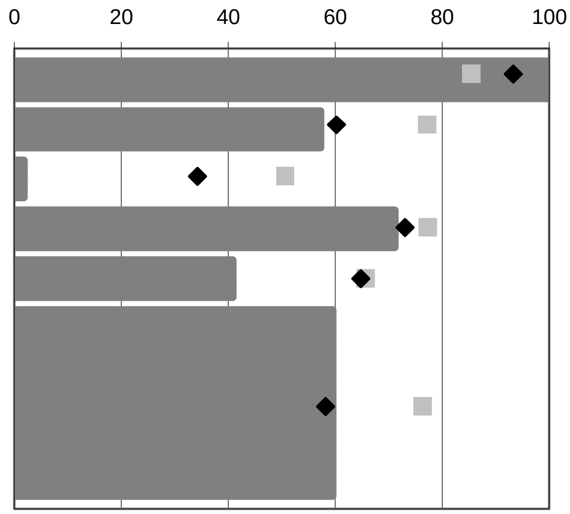
Solomon Islands

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $1,858
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	137
Score:	52.3
Income Group Avg.	60.2
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	100.0	93.3	85.6
Water (eco)	57.3	60.3	77.3
Biodiv. and Habitat	1.8	34.2	50.7
Prod. Nat. Resources	71.2	73.1	77.4
Climate Change	40.8	64.8	65.8
Environmental Health	59.6	58.3	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	14.0	*0*	74.8
ACSAT	Adequate Sanitation (%)	31.0	*100*	19.3
WATSUP	Drinking Water (%)	70.0	*100*	49.1
PM10	Urban Particulates (µg/m^3)	35.92118	*20*	86.6
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.0	*0*	99.9
WATQI	Water Quality (GEMS Water Quality Index score)	48.7	*100*	14.7
WATSTR	Water Stress (%)	0.0	*0*	73.4
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	6.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.1	*10*	0.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	47.2
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.0	*0*	95.2
IRRSTR	Irrigation Stress (CIESIN, %)		*0*	
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)		*0*	
BURNED	Burned Land Area (%)		*0*	
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	54.1	*2.24*	0.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	648.6	*0*	30.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.4	*0.85*	92.3

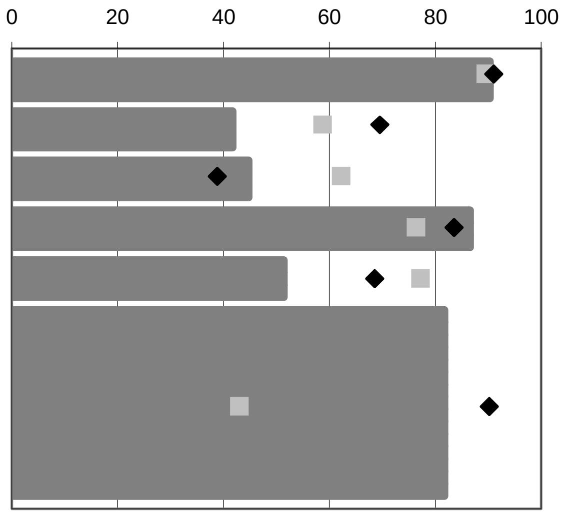
South Africa

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $10,338
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	97
Score:	69.0
Income Group Avg.	79.0
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	90.4	91.1	89.6
Water (eco)	41.7	69.6	58.8
Biodiv. and Habitat	44.8	38.9	62.3
Prod. Nat. Resources	86.6	83.6	76.4
Climate Change	51.4	68.6	77.2
Environmental Health	81.8	90.2	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	9.0	*0*	83.8
ACSAT	Adequate Sanitation (%)	65.0	*100*	59.1
WATSUP	Drinking Water (%)	88.0	*100*	79.6
PM10	Urban Particulates ($\mu g/m^3$)	26.1385	*20*	94.8
INDOOR	Indoor Air Pollution (%)	17.9	*0*	81.2
OZONE_H	Local Ozone (ppb)	20.3	*85*	98.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	17,102,000.6	*3,000*	95.8
SO2	Sulfur Dioxide Emissions (ppb)	6.4	*0*	84.9
WATQI	Water Quality (GEMS Water Quality Index score)	66.3	*100*	44.0
WATSTR	Water Stress (%)	54.8	*0*	43.0
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	77.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.3	*10*	43.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	50.0	*100*	50.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.4	*10*	4.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	70.5
IRRSTR	Irrigation Stress (CIESIN, %)	37.4	*0*	56.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	4.8	*0*	92.4
BURNED	Burned Land Area (%)	5.3	*0*	61.4
PEST	Pesticide Regulation (points)	14.0	*22*	63.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	9.3	*2.24*	86.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	848.0	*0*	8.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.6	*0.85*	59.1

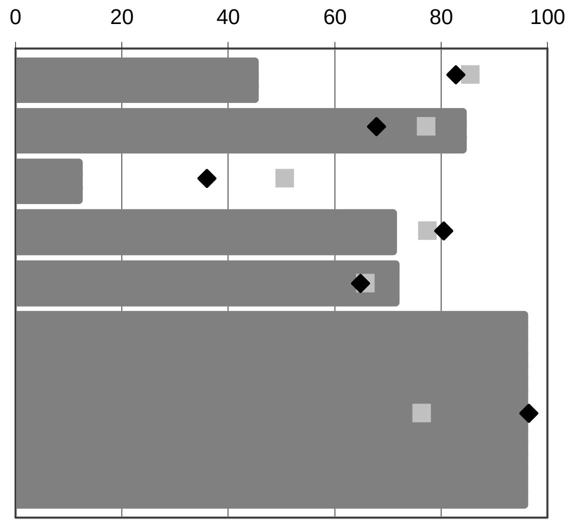
South Korea

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $20,572
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	51
Score:	79.4
Income Group Avg.	80.4
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	45.0	82.8	85.6
Water (eco)	84.1	67.9	77.3
Biodiv. and Habitat	11.9	36.0	50.7
Prod. Nat. Resources	71.0	80.5	77.4
Climate Change	71.5	64.8	65.8
Environmental Health	95.6	96.5	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.5	*0*	99.1
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	92.0	*100*	86.4
PM10	Urban Particulates (μg/m^3)	38.21652	*20*	84.7
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	56.0	*85*	97.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	41,059,799.0	*3,000*	90.0
SO2	Sulfur Dioxide Emissions (ppb)	43.3	*0*	0.0
WATQI	Water Quality (GEMS Water Quality Index score)	87.3	*100*	78.9
WATSTR	Water Stress (%)	9.7	*0*	72.0
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	17.2
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.3	*10*	12.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.6	*10*	6.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.2	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	73.3
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.8	*0*	19.9
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	63.0	*0*	-0.0
AGINT	Intensive Cropland (CIESIN, %)	4.2	*0*	93.3
BURNED	Burned Land Area (%)	4.0	*0*	70.8
PEST	Pesticide Regulation (points)	15.0	*22*	68.2
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.2	*2.24*	82.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	418.0	*0*	54.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.4	*0.85*	76.9

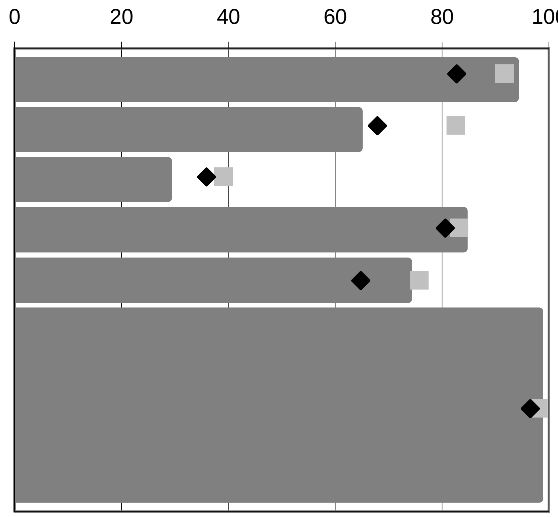
Spain

EUROPE

GDP/capita 2005 est. (PPP) $24,681
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	30
Score:	83.1
Income Group Avg.	80.4
Geographic Group Avg.	85.7

Policy Categories



	Country	◆ Income Group	■ Geographic Group
Air Pollution (eco)	93.7	82.8	91.7
Water (eco)	64.4	67.9	82.7
Biodiv. and Habitat	28.7	36.0	39.1
Prod. Nat. Resources	84.1	80.5	83.3
Climate Change	73.7	64.8	75.8
Environmental Health	98.2	96.5	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	33.25307	*20*	88.8
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	4.6	*85*	99.7
OZONE_E	Regional Ozone (tons SO_2 / populated land)	2,851,720.0	*3,000*	99.3
SO2	Sulfur Dioxide Emissions (ppb)	5.1	*0*	88.0
WATQI	Water Quality (GEMS Water Quality Index score)	81.8	*100*	69.8
WATSTR	Water Stress (%)	37.1	*0*	72.9
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	35.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.3	*10*	23.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	50.0	*100*	50.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.6	*10*	6.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	87.7
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	79.6
IRRSTR	Irrigation Stress (CIESIN, %)	16.0	*0*	81.2
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	31.6	*0*	50.1
BURNED	Burned Land Area (%)	0.9	*0*	93.0
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	10.9	*2.24*	83.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	394.0	*0*	57.5
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.2	*0.85*	80.3

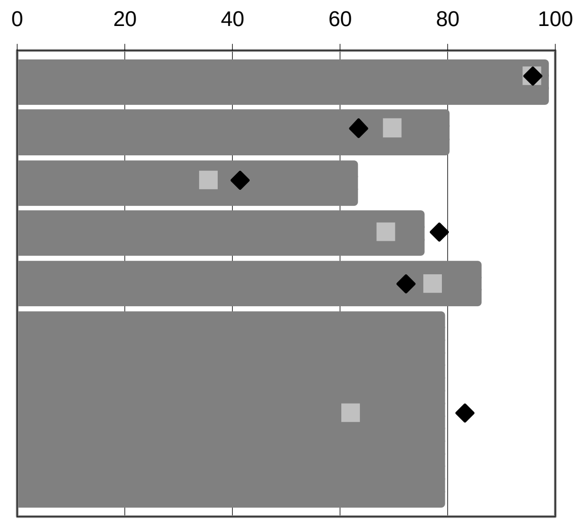
Sri Lanka

SOUTH ASIA

GDP/capita 2005 est. (PPP) $4,391
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	50
Score:	79.5
Income Group Avg.	75.8
Geographic Group Avg.	65.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.1	95.8	95.7
Water (eco)	79.7	63.4	69.7
Biodiv. and Habitat	62.6	41.5	35.7
Prod. Nat. Resources	75.0	78.4	68.5
Climate Change	85.6	72.3	77.2
Environmental Health	78.8	83.2	62.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.5	*0*	97.3
ACSAT	Adequate Sanitation (%)	91.0	*100*	89.5
WATSUP	Drinking Water (%)	79.0	*100*	64.3
PM10	Urban Particulates (µg/m^3)	103.7992	*20*	29.5
INDOOR	Indoor Air Pollution (%)	67.1	*0*	29.4
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.6	*0*	96.1
WATQI	Water Quality (GEMS Water Quality Index score)	86.5	*100*	77.6
WATSTR	Water Stress (%)	16.5	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	97.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	5.1	*10*	50.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	100.0	*100*	100.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	51.5
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	84.6
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	79.9
IRRSTR	Irrigation Stress (CIESIN, %)	4.2	*0*	95.1
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	13.0	*0*	79.5
BURNED	Burned Land Area (%)	0.1	*0*	99.6
PEST	Pesticide Regulation (points)	18.0	*22*	81.8
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	1.9	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	398.0	*0*	57.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.9	*0.85*	99.7

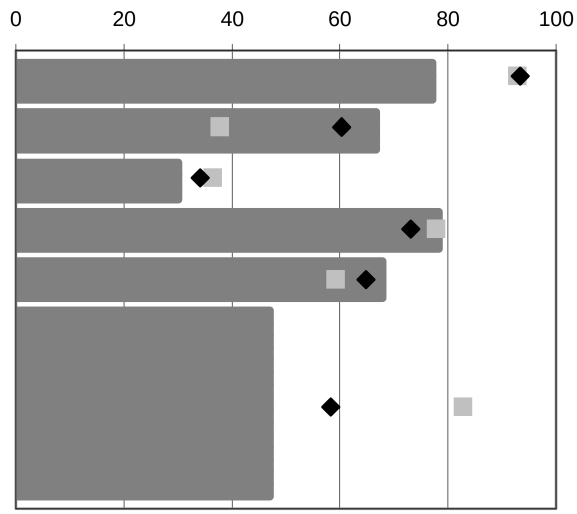
Sudan

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $2,050
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	129
Score:	55.5
Income Group Avg.	60.2
Geographic Group Avg.	70.0

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	77.1	93.3	92.9
Water (eco)	66.7	60.3	37.8
Biodiv. and Habitat	30.1	34.2	36.5
Prod. Nat. Resources	78.4	73.1	77.8
Climate Change	67.9	64.8	59.2
Environmental Health	47.0	58.3	82.9

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	18.0	*0*	67.6
ACSAT	Adequate Sanitation (%)	34.0	*100*	22.8
WATSUP	Drinking Water (%)	70.0	*100*	49.1
PM10	Urban Particulates (µg/m^3)	181.5399	*20*	0.0
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	282.3	*85*	84.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	186,080,993.3	*3,000*	54.6
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.6
WATQI	Water Quality (GEMS Water Quality Index score)	67.0	*100*	45.2
WATSTR	Water Stress (%)	10.7	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	30.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	3.1	*10*	31.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	81.7
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	78.6
IRRSTR	Irrigation Stress (CIESIN, %)	37.9	*0*	55.4
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	1.1	*0*	98.2
BURNED	Burned Land Area (%)	10.2	*0*	24.9
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.7	*2.24*	95.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	848.0	*0*	8.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.5	*0.85*	100.0

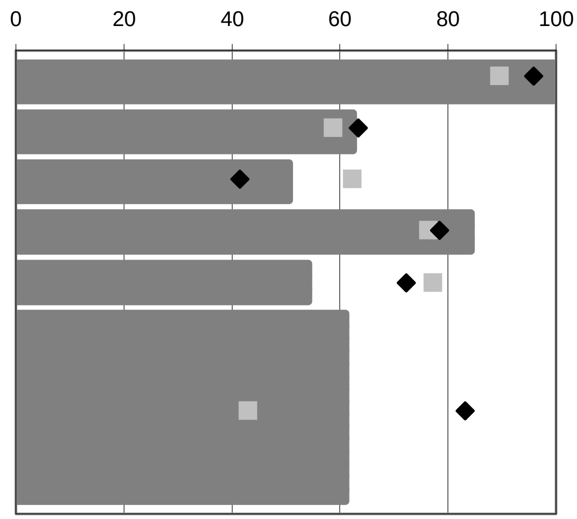
Swaziland

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $4,440
Income Decile 6 (1=high, 10=low)

2008 EPI	
Rank:	118
Score:	61.3
Income Group Avg.	75.8
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.6	95.8	89.6
Water (eco)	62.5	63.4	58.8
Biodiv. and Habitat	50.6	41.5	62.3
Prod. Nat. Resources	84.3	78.4	76.4
Climate Change	54.1	72.3	77.2
Environmental Health	61.1	83.2	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	17.0	*0*	69.4
ACSAT	Adequate Sanitation (%)	48.0	*100*	39.2
WATSUP	Drinking Water (%)	62.0	*100*	35.5
PM10	Urban Particulates (µg/m^3)	34.23219	*20*	88.0
INDOOR	Indoor Air Pollution (%)	63.8	*0*	32.8
OZONE_H	Local Ozone (ppb)	17.5	*85*	99.1
OZONE_E	Regional Ozone (tons SO_2 / populated land)	308,959.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.2
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	4.0	*0*	99.9
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.1	*10*	1.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	95.5
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	5.3	*0*	61.0
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	39.7	*2.24*	27.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	541.3	*0*	41.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.3	*0.85*	93.0

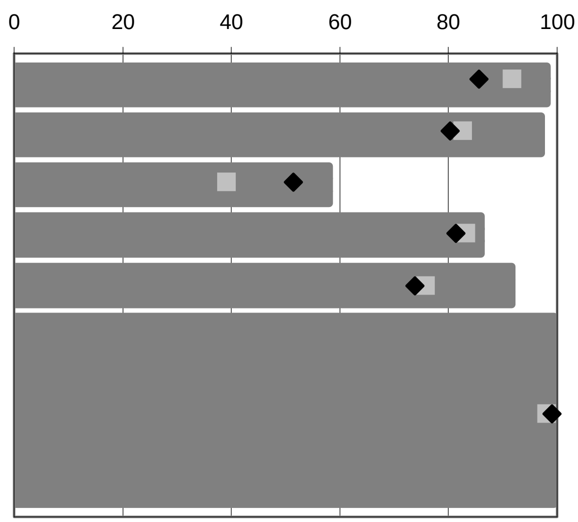
Sweden

EUROPE

GDP/capita 2005 est. (PPP) $30,393
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	2
Score:	93.1
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.1	85.6	91.7
Water (eco)	97.1	80.3	82.7
Biodiv. and Habitat	58.0	51.4	39.1
Prod. Nat. Resources	85.9	81.3	83.3
Climate Change	91.6	73.8	75.8
Environmental Health	99.4	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	12.24485	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	3.5	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	321,529.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	1.6	*0*	96.3
WATQI	Water Quality (GEMS Water Quality Index score)	96.7	*100*	94.6
WATSTR	Water Stress (%)	0.4	*0*	58.6
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	75.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	5.2	*10*	52.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	2.6	*10*	26.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	80.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	76.8
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	15.8	*0*	75.0
BURNED	Burned Land Area (%)	0.1	*0*	98.9
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	7.5	*2.24*	89.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	45.0	*0*	95.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.5	*0.85*	89.9

2008 Environmental Performance Index

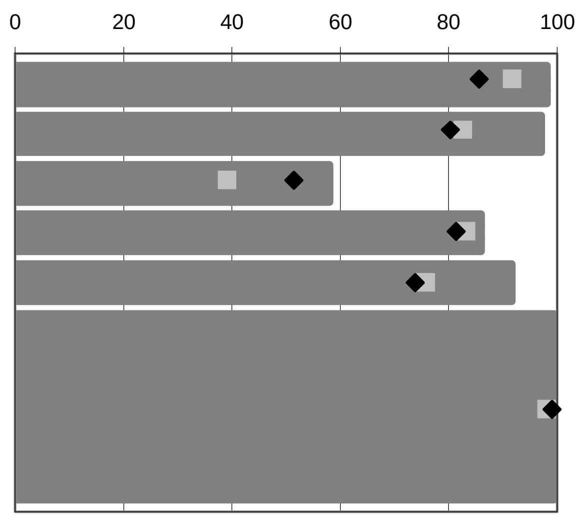
Switzerland

EUROPE

GDP/capita 2005 est. (PPP) $32,775
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	1
Score:	95.5
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.1	85.6	91.7
Water (eco)	94.5	80.3	82.7
Biodiv. and Habitat	82.7	51.4	39.1
Prod. Nat. Resources	89.1	81.3	83.3
Climate Change	94.6	73.8	75.8
Environmental Health	98.9	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	24.42451	*20*	96.3
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	27.3	*85*	98.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	2,755,990.1	*3,000*	99.3
SO2	Sulfur Dioxide Emissions (ppb)	2.1	*0*	94.9
WATQI	Water Quality (GEMS Water Quality Index score)	93.3	*100*	88.9
WATSTR	Water Stress (%)	0.0	*0*	80.5
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	6.5	*10*	65.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	68.0	*0*	-0.0
AGINT	Intensive Cropland (CIESIN, %)	4.3	*0*	93.2
BURNED	Burned Land Area (%)	0.3	*0*	98.1
PEST	Pesticide Regulation (points)	22.0	*22*	100.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	7.9	*2.24*	89.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	26.0	*0*	97.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.0	*0.85*	97.4

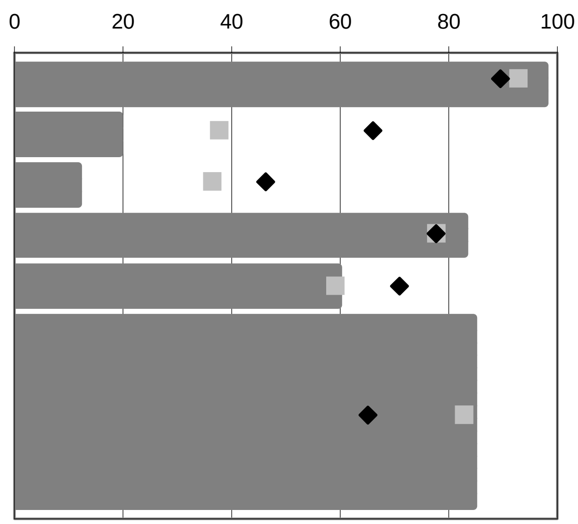
Syria

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $3,497
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	99
Score:	68.2
Income Group Avg.	66.8
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.6	89.6	92.9
Water (eco)	19.3	66.0	37.8
Biodiv. and Habitat	11.7	46.2	36.5
Prod. Nat. Resources	82.9	77.7	77.8
Climate Change	59.7	70.9	59.2
Environmental Health	84.5	65.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	4.0	*0*	92.8
ACSAT	Adequate Sanitation (%)	90.0	*100*	88.3
WATSUP	Drinking Water (%)	93.0	*100*	88.1
PM10	Urban Particulates (µg/m^3)	86.13787	*20*	44.4
INDOOR	Indoor Air Pollution (%)	32.0	*0*	66.3
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	2.0	*0*	95.3
WATQI	Water Quality (GEMS Water Quality Index score)	39.9	*100*	0.0
WATSTR	Water Stress (%)	55.6	*0*	99.0
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	21.1
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.3	*10*	2.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.4	*10*	4.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	71.4
IRRSTR	Irrigation Stress (CIESIN, %)	9.1	*0*	89.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	58.2	*0*	8.0
BURNED	Burned Land Area (%)	0.8	*0*	93.8
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.7	*2.24*	97.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	587.0	*0*	36.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.6	*0.85*	45.4

2008 Environmental Performance Index

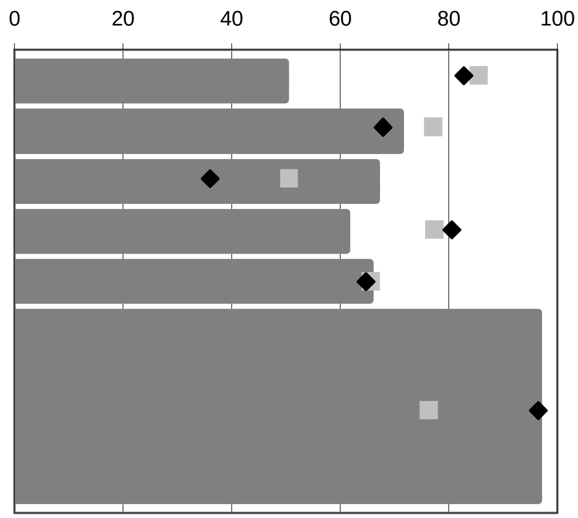
Taiwan

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $29,600
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	40
Score:	80.8
Income Group Avg.	80.4
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	49.8	82.8	85.6
Water (eco)	71.1	67.9	77.3
Biodiv. and Habitat	66.7	36.0	50.7
Prod. Nat. Resources	61.2	80.5	77.4
Climate Change	65.5	64.8	65.8
Environmental Health	96.6	96.5	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	59.68	*20*	66.6
INDOOR	Indoor Air Pollution (%)	0.0	*0*	100.0
OZONE_H	Local Ozone (ppb)	3.5	*85*	99.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	1,363,569.9	*3,000*	99.7
SO2	Sulfur Dioxide Emissions (ppb)	48.3	*0*	0.0
WATQI	Water Quality (GEMS Water Quality Index score)	65.3	*100*	42.3
WATSTR	Water Stress (%)	0.0	*0*	66.3
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	10.0	*10*	100.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)		*0*	
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.8	*0*	19.2
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	40.2	*0*	13.9
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.0	*0*	100.0
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.4	*2.24*	82.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	632.0	*0*	31.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.0	*0.85*	82.5

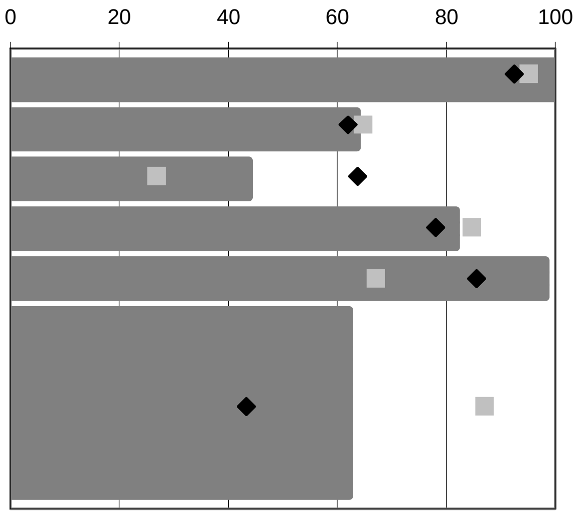
Tajikistan

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $1,257
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	79
Score:	72.3
Income Group Avg.	60.6
Geographic Group Avg.	75.9

Policy Categories



	Country	◆ Income Group	■ Geographic Group
Air Pollution (eco)	99.8	92.5	95.1
Water (eco)	63.7	62.0	64.8
Biodiv. and Habitat	43.8	63.8	26.9
Prod. Nat. Resources	81.8	78.1	84.8
Climate Change	98.2	85.5	67.1
Environmental Health	62.2	43.3	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	10.0	*0*	82.0
ACSAT	Adequate Sanitation (%)	51.0	*100*	42.7
WATSUP	Drinking Water (%)	59.0	*100*	30.4
PM10	Urban Particulates ($\mu g/m^3$)	54.53741	*20*	70.9
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	10.6	*85*	99.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	983,656.0	*3,000*	99.8
SO2	Sulfur Dioxide Emissions (ppb)	0.1	*0*	99.8
WATQI	Water Quality (GEMS Water Quality Index score)	65.6	*100*	42.8
WATSTR	Water Stress (%)	14.0	*0*	77.5
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	58.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.9	*10*	29.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	83.5
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	5.9	*0*	93.1
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.7	*0*	98.9
BURNED	Burned Land Area (%)	0.7	*0*	94.8
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.5	*2.24*	97.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	27.0	*0*	97.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.0	*0.85*	100.0

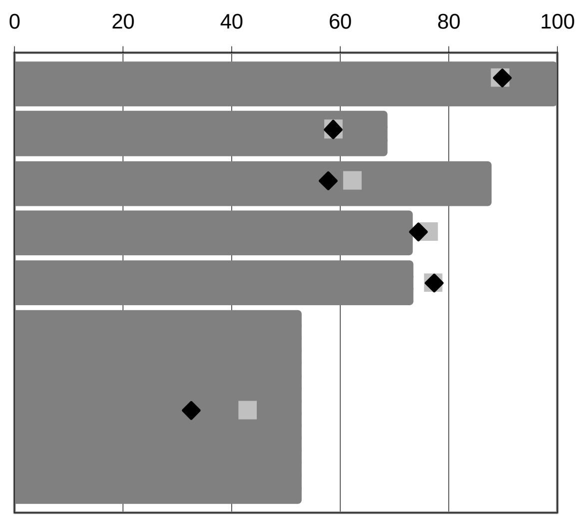
Tanzania

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $650
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	113
Score:	63.9
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.3	89.9	89.6
Water (eco)	68.0	58.7	58.8
Biodiv. and Habitat	87.2	57.8	62.3
Prod. Nat. Resources	72.7	74.4	76.4
Climate Change	72.8	77.3	77.2
Environmental Health	52.2	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	26.0	*0*	53.1
ACSAT	Adequate Sanitation (%)	47.0	*100*	38.0
WATSUP	Drinking Water (%)	62.0	*100*	35.5
PM10	Urban Particulates (µg/m^3)	28.33187	*20*	93.0
INDOOR	Indoor Air Pollution (%)	74.5	*0*	21.6
OZONE_H	Local Ozone (ppb)	7.7	*85*	99.6
OZONE_E	Regional Ozone (tons SO_2 / populated land)	4,579,139.8	*3,000*	98.9
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.6
WATQI	Water Quality (GEMS Water Quality Index score)	68.7	*100*	48.0
WATSTR	Water Stress (%)	10.8	*0*	95.6
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.3	*10*	92.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	88.9	*100*	88.9
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.4	*10*	14.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	73.3
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	74.9
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	83.3
IRRSTR	Irrigation Stress (CIESIN, %)	19.2	*0*	77.4
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.1	*0*	99.9
BURNED	Burned Land Area (%)	9.0	*0*	33.5
PEST	Pesticide Regulation (points)	4.0	*22*	18.2
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.5	*2.24*	97.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	607.0	*0*	34.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.8	*0.85*	86.3

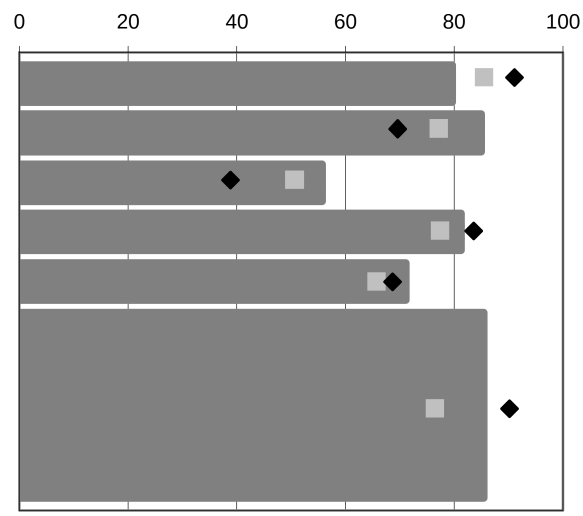
Thailand

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $8,065
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	53
Score:	79.2
Income Group Avg.	79.0
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	79.6	91.1	85.6
Water (eco)	85.0	69.6	77.3
Biodiv. and Habitat	55.7	38.9	50.7
Prod. Nat. Resources	81.3	83.6	77.4
Climate Change	71.1	68.6	65.8
Environmental Health	85.5	90.2	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	2.0	*0*	96.4
ACSAT	Adequate Sanitation (%)	99.0	*100*	98.8
WATSUP	Drinking Water (%)	99.0	*100*	98.3
PM10	Urban Particulates (µg/m^3)	73.40343	*20*	55.1
INDOOR	Indoor Air Pollution (%)	72.0	*0*	24.2
OZONE_H	Local Ozone (ppb)	111.2	*85*	94.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	142,235,002.9	*3,000*	65.3
SO2	Sulfur Dioxide Emissions (ppb)	2.6	*0*	93.9
WATQI	Water Quality (GEMS Water Quality Index score)	87.8	*100*	79.7
WATSTR	Water Stress (%)	8.8	*0*	77.8
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	64.6
EFFCON	Effective Conservation (The Nature Conservancy, %)	7.3	*10*	73.4
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.4	*10*	14.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	91.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.8	*0*	20.3
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	4.3	*0*	90.8
AGINT	Intensive Cropland (CIESIN, %)	11.7	*0*	81.5
BURNED	Burned Land Area (%)	0.2	*0*	98.3
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	6.0	*2.24*	92.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	531.0	*0*	42.8
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.4	*0.85*	77.8

2008 Environmental Performance Index

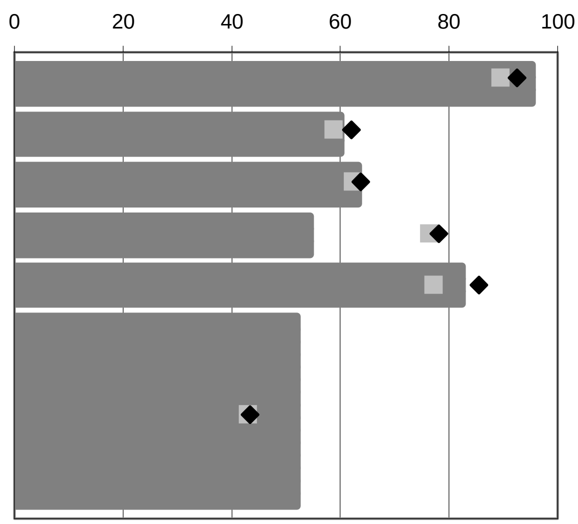
Togo

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,306
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	116
Score:	62.3
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	95.3	92.5	89.6
Water (eco)	60.1	62.0	58.8
Biodiv. and Habitat	63.3	63.8	62.3
Prod. Nat. Resources	54.4	78.1	76.4
Climate Change	82.4	85.5	77.2
Environmental Health	52.0	43.3	43.0

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	18.0	*0*	67.6
ACSAT	Adequate Sanitation (%)	35.0	*100*	24.0
WATSUP	Drinking Water (%)	52.0	*100*	18.5
PM10	Urban Particulates (µg/m^3)	43.3675	*20*	80.3
INDOOR	Indoor Air Pollution (%)	87.3	*0*	8.1
OZONE_H	Local Ozone (ppb)	356.0	*85*	80.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	33,993,100.8	*3,000*	91.7
SO2	Sulfur Dioxide Emissions (ppb)	0.4	*0*	99.0
WATQI	Water Quality (GEMS Water Quality Index score)	52.0	*100*	20.1
WATSTR	Water Stress (%)	0.0	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	3.9	*10*	38.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.6	*0*	-0.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	65.8
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	33.5	*0*	47.0
BURNED	Burned Land Area (%)	2.4	*0*	82.5
PEST	Pesticide Regulation (points)	16.0	*22*	72.7
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.1	*2.24*	98.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	474.0	*0*	48.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.6	*0.85*	100.0

Trinidad & Tobago

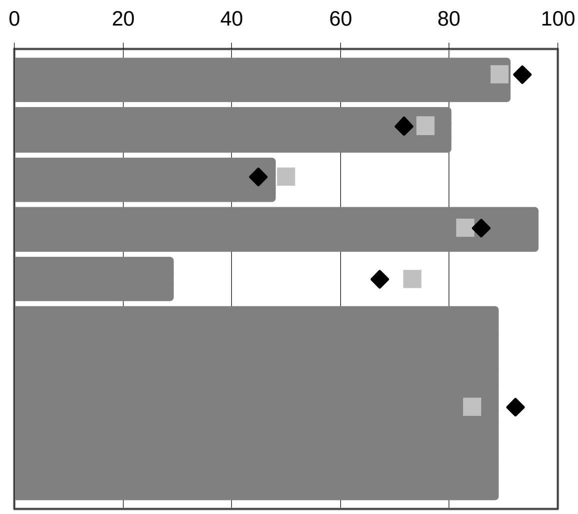
AMERICAS

GDP/capita 2005 est. (PPP) $14,708
Income Decile 3 (1=high, 10=low)

2008 EPI

Rank:	89
Score:	70.4
Income Group Avg.	80.5
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	90.6	93.4	89.3
Water (eco)	79.7	71.7	75.7
Biodiv. and Habitat	47.5	44.9	50.1
Prod. Nat. Resources	95.7	85.9	83.1
Climate Change	28.7	67.3	73.4
Environmental Health	88.4	92.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	91.0	*100*	84.7
PM10	Urban Particulates (µg/m^3)	114.4403	*20*	20.5
INDOOR	Indoor Air Pollution (%)	8.0	*0*	91.6
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	7.9	*0*	81.2
WATQI	Water Quality (GEMS Water Quality Index score)	75.6	*100*	59.4
WATSTR	Water Stress (%)	0.0	*0*	98.2
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	98.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	4.1	*10*	41.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	50.0	*100*	50.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	98.5
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	84.4
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	16.0	*0*	74.7
BURNED	Burned Land Area (%)		*0*	
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	21.7	*2.24*	62.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	709.0	*0*	23.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	13.5	*0.85*	-0.0

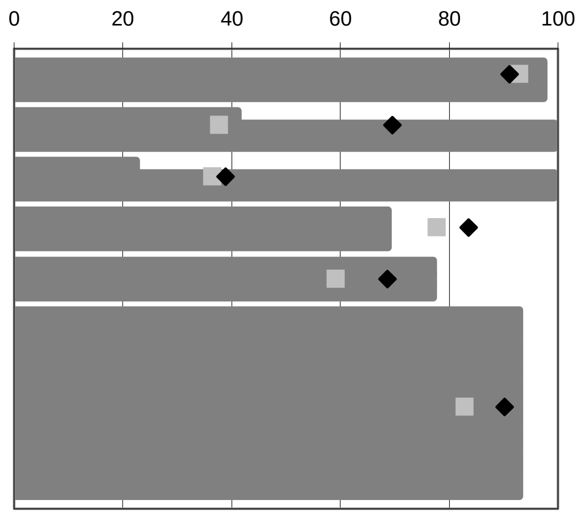
Tunisia

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $7,758
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	59
Score:	78.1
Income Group Avg.	79.0
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.4	91.1	92.9
Water (eco)	41.2	69.6	37.8
Biodiv. and Habitat	22.4	38.9	36.5
Prod. Nat. Resources	68.7	83.6	77.8
Climate Change	77.1	68.6	59.2
Environmental Health	92.9	90.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	2.0	*0*	96.4
ACSAT	Adequate Sanitation (%)	85.0	*100*	82.5
WATSUP	Drinking Water (%)	93.0	*100*	88.1
PM10	Urban Particulates (µg/m^3)	33.16154	*20*	88.9
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.5	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	64,297.7	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	2.2	*0*	94.7
WATQI	Water Quality (GEMS Water Quality Index score)	63.8	*100*	39.7
WATSTR	Water Stress (%)	51.9	*0*	49.6
CRI	Conservation Risk Index (ratio)	0.3	*0.5*	50.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.9	*10*	8.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.9	*0*	6.3
IRRSTR	Irrigation Stress (CIESIN, %)	19.7	*0*	76.8
AGSUB	Agricultural Subsidies (% border agricultural prices)	11.3	*0*	75.7
AGINT	Intensive Cropland (CIESIN, %)	77.0	*0*	0.0
BURNED	Burned Land Area (%)	0.1	*0*	99.1
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.7	*2.24*	97.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	482.0	*0*	48.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.8	*0.85*	86.1

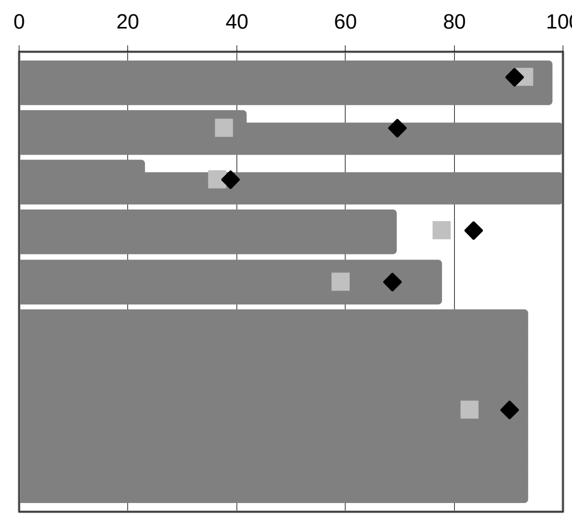
Turkey

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $7,842
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	72
Score:	75.9
Income Group Avg.	79.0
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.8	91.1	92.9
Water (eco)	69.3	69.6	37.8
Biodiv. and Habitat	5.2	38.9	36.5
Prod. Nat. Resources	75.5	83.6	77.8
Climate Change	66.5	68.6	59.2
Environmental Health	91.2	90.2	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	3.0	*0*	94.6
ACSAT	Adequate Sanitation (%)	88.0	*100*	86.0
WATSUP	Drinking Water (%)	96.0	*100*	93.2
PM10	Urban Particulates (µg/m^3)	47.65842	*20*	76.7
INDOOR	Indoor Air Pollution (%)	11.0	*0*	88.4
OZONE_H	Local Ozone (ppb)	0.2	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	189,136.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	2.7	*0*	93.6
WATQI	Water Quality (GEMS Water Quality Index score)	72.3	*100*	54.0
WATSTR	Water Stress (%)	13.9	*0*	87.6
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	10.8
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.3	*10*	2.8
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	0.0	*100*	0.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.1	*10*	11.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	62.5
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.7	*0*	34.4
IRRSTR	Irrigation Stress (CIESIN, %)	2.7	*0*	96.8
AGSUB	Agricultural Subsidies (% border agricultural prices)	27.0	*0*	42.1
AGINT	Intensive Cropland (CIESIN, %)	14.2	*0*	77.6
BURNED	Burned Land Area (%)	1.7	*0*	87.5
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	4.5	*2.24*	95.7
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	433.0	*0*	53.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.2	*0.85*	50.4

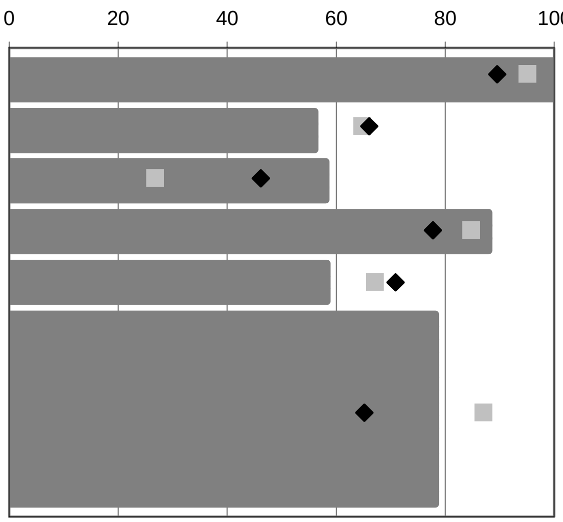
Turkmenistan

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $3,416
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	85
Score:	71.3
Income Group Avg.	66.8
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.7	89.6	95.1
Water (eco)	56.0	66.0	64.8
Biodiv. and Habitat	58.1	46.2	26.9
Prod. Nat. Resources	87.9	77.7	84.8
Climate Change	58.2	70.9	67.1
Environmental Health	78.1	65.2	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	7.0	*0*	87.4
ACSAT	Adequate Sanitation (%)	62.0	*100*	55.6
WATSUP	Drinking Water (%)	72.0	*100*	52.5
PM10	Urban Particulates (µg/m^3)	61.90042	*20*	64.7
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	0.2	*0*	99.5
WATQI	Water Quality (GEMS Water Quality Index score)	65.6	*100*	42.8
WATSTR	Water Stress (%)	27.9	*0*	97.7
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	99.2
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.7	*10*	16.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	14.0	*0*	83.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	2.1	*0*	96.7
BURNED	Burned Land Area (%)	0.1	*0*	99.2
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	22.7	*2.24*	60.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	795.0	*0*	14.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.0	*0.85*	100.0

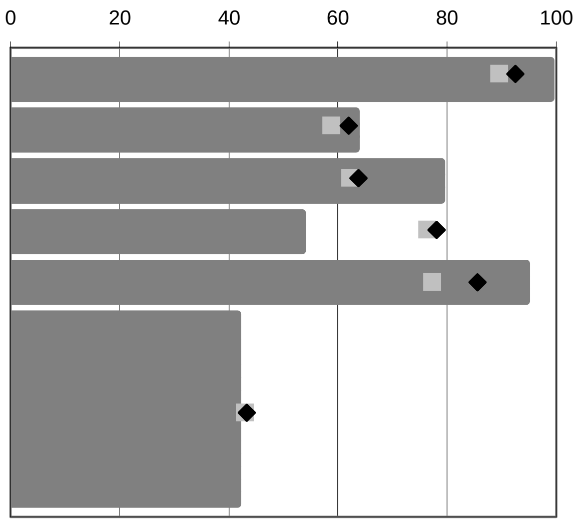
Uganda

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,313
Income Decile 9 (1=high, 10=low)

2008 EPI	
Rank:	117
Score:	61.6
Income Group Avg.	60.6
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.0	92.5	89.6
Water (eco)	63.3	62.0	58.8
Biodiv. and Habitat	78.9	63.8	62.3
Prod. Nat. Resources	53.4	78.1	76.4
Climate Change	94.5	85.5	77.2
Environmental Health	41.6	43.3	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	35.0	*0*	36.9
ACSAT	Adequate Sanitation (%)	43.0	*100*	33.3
WATSUP	Drinking Water (%)	60.0	*100*	32.1
PM10	Urban Particulates (μg/m^3)	16.52323	*20*	100.0
INDOOR	Indoor Air Pollution (%)	95.0	*0*	0.0
OZONE_H	Local Ozone (ppb)	10.7	*85*	99.4
OZONE_E	Regional Ozone (tons SO_2 / populated land)	5,101,670.1	*3,000*	98.8
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.3
WATQI	Water Quality (GEMS Water Quality Index score)	56.7	*100*	28.0
WATSTR	Water Stress (%)	1.4	*0*	69.2
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	99.9
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.7	*10*	87.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	50.0	*100*	50.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	52.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.9	*0*	98.1
AGINT	Intensive Cropland (CIESIN, %)	31.9	*0*	49.5
BURNED	Burned Land Area (%)	10.9	*0*	20.0
PEST	Pesticide Regulation (points)	1.0	*22*	4.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	1.6	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	151.7	*0*	83.6
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

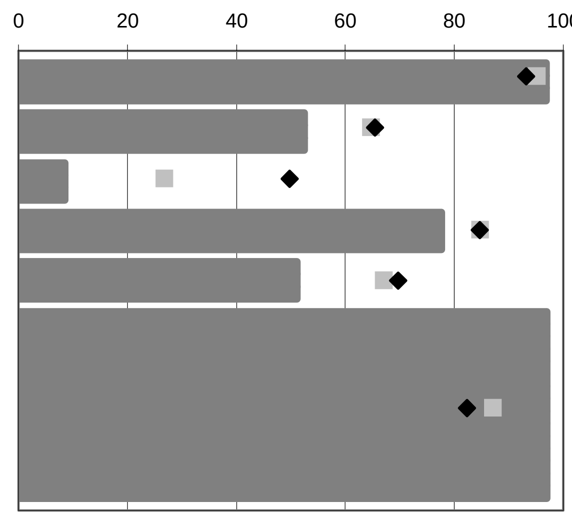
Ukraine

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $6,605
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	75
Score:	74.1
Income Group Avg.	75.9
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	96.9	93.2	95.1
Water (eco)	52.5	65.4	64.8
Biodiv. and Habitat	8.5	49.7	26.9
Prod. Nat. Resources	77.7	84.7	84.8
Climate Change	51.1	69.7	67.1
Environmental Health	97.0	82.4	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.3	*0*	99.5
ACSAT	Adequate Sanitation (%)	96.0	*100*	95.3
WATSUP	Drinking Water (%)	96.0	*100*	93.2
PM10	Urban Particulates (µg/m^3)	27.31135	*20*	93.8
INDOOR	Indoor Air Pollution (%)	6.5	*0*	93.2
OZONE_H	Local Ozone (ppb)	0.1	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	73,695.8	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	2.6	*0*	93.8
WATQI	Water Quality (GEMS Water Quality Index score)	58.9	*100*	31.7
WATSTR	Water Stress (%)	24.2	*0*	93.9
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	9.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.5	*10*	5.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	1.6	*10*	16.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	78.4
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	77.0
IRRSTR	Irrigation Stress (CIESIN, %)	13.2	*0*	84.4
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	62.3	*0*	1.5
BURNED	Burned Land Area (%)	11.2	*0*	17.8
PEST	Pesticide Regulation (points)	16.0	*22*	72.7
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.9	*2.24*	87.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	314.0	*0*	66.1
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	9.3	*0.85*	-0.0

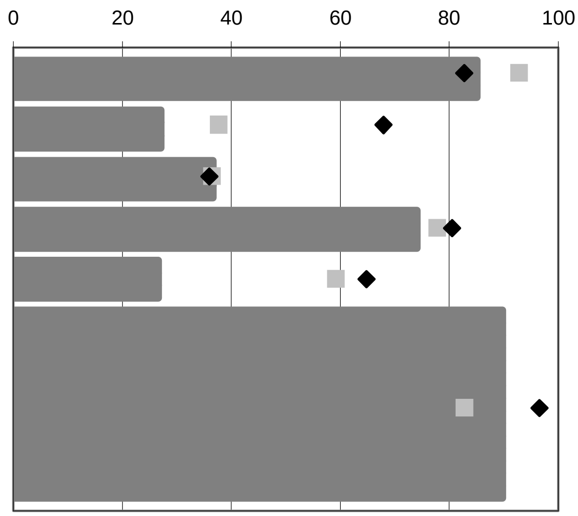
United Arab Emirates

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $22,698
Income Decile 2 (1=high, 10=low)

2008 EPI	
Rank:	112
Score:	64.0
Income Group Avg.	80.4
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	85.1	82.8	92.9
Water (eco)	27.1	67.9	37.8
Biodiv. and Habitat	36.6	36.0	36.5
Prod. Nat. Resources	74.1	80.5	77.8
Climate Change	26.6	64.8	59.2
Environmental Health	89.8	96.5	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.6	*0*	98.9
ACSAT	Adequate Sanitation (%)	98.0	*100*	97.7
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	125.5979	*20*	11.2
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	26.3	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	12.6	*0*	70.2
WATQI	Water Quality (GEMS Water Quality Index score)	39.9	*100*	0.0
WATSTR	Water Stress (%)	41.6	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.2	*10*	2.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	1.0	*0*	0.0
IRRSTR	Irrigation Stress (CIESIN, %)	41.0	*0*	51.8
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.5	*0*	96.1
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	34.1	*2.24*	38.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	844.0	*0*	9.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	5.5	*0.85*	32.1

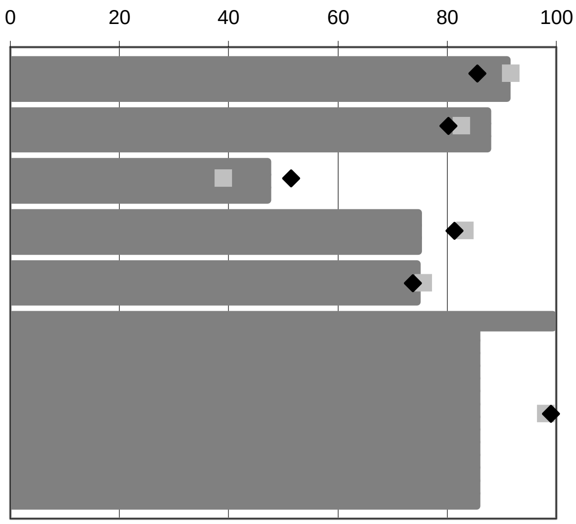
United Kingdom

EUROPE

GDP/capita 2005 est. (PPP) $30,237
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	14
Score:	86.3
Income Group Avg.	86.0
Geographic Group Avg.	85.7

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	91.0	85.6	91.7
Water (eco)	87.4	80.3	82.7
Biodiv. and Habitat	47.2	51.4	39.1
Prod. Nat. Resources	74.7	81.3	83.3
Climate Change	74.6	73.8	75.8
Environmental Health	99.4	99.0	98.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.1	*0*	99.8
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	15.05919	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	0.7	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	495,934.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	7.6	*0*	82.1
WATQI	Water Quality (GEMS Water Quality Index score)	90.5	*100*	84.2
WATSTR	Water Stress (%)	8.4	*0*	84.7
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.9	*10*	19.0
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	66.7	*100*	66.7
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.3	*10*	3.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	80.5
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.9	*0*	14.1
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	36.0	*0*	22.8
AGINT	Intensive Cropland (CIESIN, %)	20.5	*0*	67.7
BURNED	Burned Land Area (%)	0.2	*0*	98.4
PEST	Pesticide Regulation (points)	21.0	*22*	95.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	11.0	*2.24*	83.1
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	473.0	*0*	49.0
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	1.4	*0.85*	91.6

2008 Environmental Performance Index

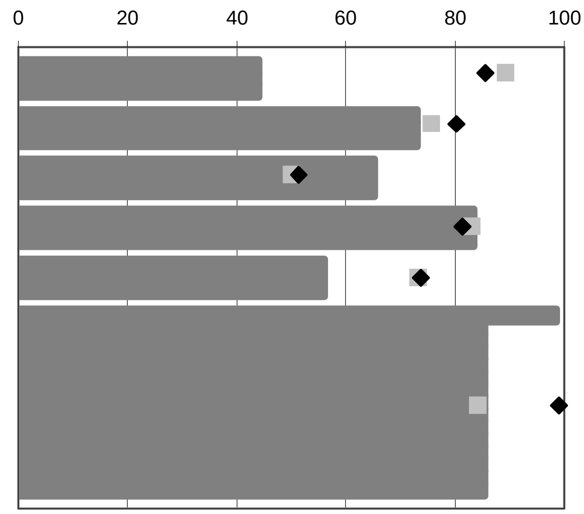
United States

AMERICAS

GDP/capita 2005 est. (PPP) $38,165
Income Decile 1 (1=high, 10=low)

2008 EPI	
Rank:	39
Score:	81.0
Income Group Avg.	86.0
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	44.0	85.6	89.3
Water (eco)	73.1	80.3	75.7
Biodiv. and Habitat	65.3	51.4	50.1
Prod. Nat. Resources	83.5	81.3	83.1
Climate Change	56.1	73.8	73.4
Environmental Health	98.5	99.0	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	0.2	*0*	99.6
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	22.63337	*20*	97.8
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	200.8	*85*	89.2
OZONE_E	Regional Ozone (tons SO_2 / populated land)	940,241,961.0	*3,000*	0.0
SO2	Sulfur Dioxide Emissions (ppb)	5.1	*0*	88.0
WATQI	Water Quality (GEMS Water Quality Index score)	81.8	*100*	69.7
WATSTR	Water Stress (%)	21.3	*0*	98.1
CRI	Conservation Risk Index (ratio)	0.4	*0.5*	74.7
EFFCON	Effective Conservation (The Nature Conservancy, %)	8.5	*10*	84.9
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	58.3	*100*	58.3
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	3.8	*10*	38.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	69.7
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.2	*0*	75.1
IRRSTR	Irrigation Stress (CIESIN, %)	19.1	*0*	77.5
AGSUB	Agricultural Subsidies (% border agricultural prices)	16.0	*0*	65.7
AGINT	Intensive Cropland (CIESIN, %)	16.8	*0*	73.4
BURNED	Burned Land Area (%)	1.8	*0*	86.6
PEST	Pesticide Regulation (points)	19.0	*22*	86.4
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	24.9	*2.24*	56.3
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	573.0	*0*	38.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.6	*0.85*	73.7

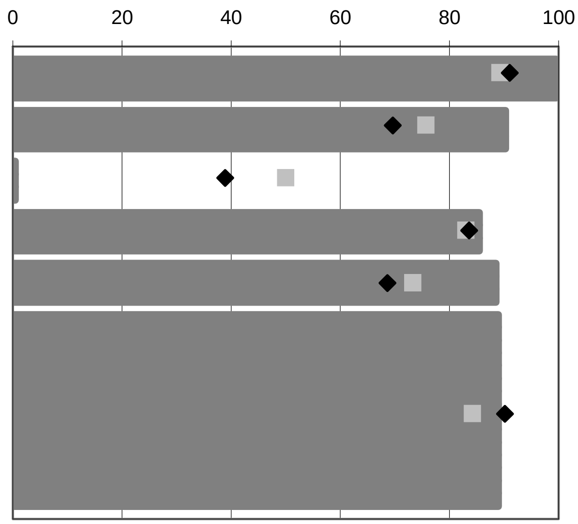
Uruguay

AMERICAS

GDP/capita 2005 est. (PPP) $9,898
Income Decile 4 (1=high, 10=low)

2008 EPI	
Rank:	36
Score:	82.3
Income Group Avg.	79.0
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	99.6	91.1	89.3
Water (eco)	90.3	69.6	75.7
Biodiv. and Habitat	0.4	38.9	50.1
Prod. Nat. Resources	85.4	83.6	83.1
Climate Change	88.5	68.6	73.4
Environmental Health	88.9	90.2	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	100.0	*100*	100.0
WATSUP	Drinking Water (%)	100.0	*100*	100.0
PM10	Urban Particulates (µg/m^3)	134.2383	*20*	3.9
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	8.6	*85*	99.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	514,102.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	0.3	*0*	99.3
WATQI	Water Quality (GEMS Water Quality Index score)	88.3	*100*	80.5
WATSTR	Water Stress (%)	0.0	*0*	82.5
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	1.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.2
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.0	*10*	0.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.6	*0*	35.2
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	4.8	*0*	89.7
AGINT	Intensive Cropland (CIESIN, %)	0.0	*0*	100.0
BURNED	Burned Land Area (%)	0.1	*0*	99.0
PEST	Pesticide Regulation (points)	12.0	*22*	54.5
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	14.4	*2.24*	76.6
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	103.0	*0*	88.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	0.8	*0.85*	100.0

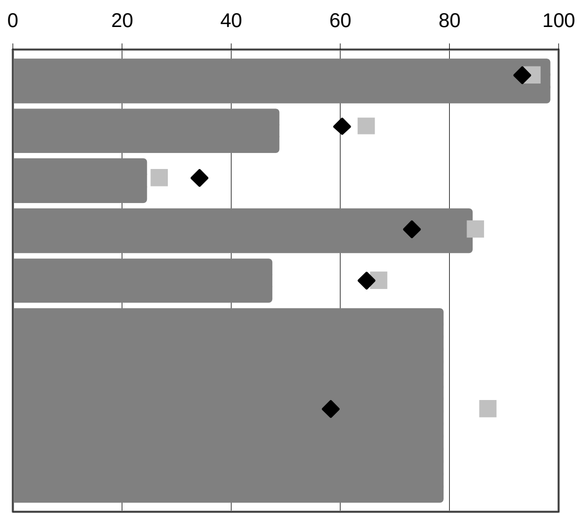
Uzbekistan

CENTRAL AND EASTERN EUROPE

GDP/capita 2005 est. (PPP) $1,942
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	106
Score:	65.0
Income Group Avg.	60.2
Geographic Group Avg.	75.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.9	93.3	95.1
Water (eco)	48.1	60.3	64.8
Biodiv. and Habitat	23.9	34.2	26.9
Prod. Nat. Resources	83.6	73.1	84.8
Climate Change	46.9	64.8	67.1
Environmental Health	78.2	58.3	87.1

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	1.0	*0*	98.2
ACSAT	Adequate Sanitation (%)	67.0	*100*	61.4
WATSUP	Drinking Water (%)	82.0	*100*	69.4
PM10	Urban Particulates (µg/m^3)	75.51952	*20*	53.3
INDOOR	Indoor Air Pollution (%)	72.0	*0*	24.2
OZONE_H	Local Ozone (ppb)	0.7	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	262,351.0	*3,000*	99.9
SO2	Sulfur Dioxide Emissions (ppb)	1.8	*0*	95.8
WATQI	Water Quality (GEMS Water Quality Index score)	65.6	*100*	42.8
WATSTR	Water Stress (%)	42.1	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.2	*0.5*	36.2
EFFCON	Effective Conservation (The Nature Conservancy, %)	1.2	*10*	11.6
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.3	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	21.1	*0*	75.2
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	21.0	*0*	66.8
BURNED	Burned Land Area (%)	0.8	*0*	93.9
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	8.2	*2.24*	88.5
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	443.0	*0*	52.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	14.5	*0.85*	-0.0

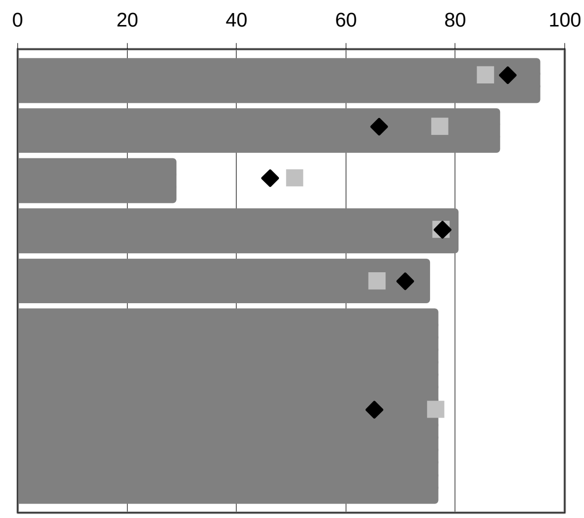
Venezuela

AMERICAS

GDP/capita 2005 est. (PPP) $6,485
Income Decile 5 (1=high, 10=low)

2008 EPI	
Rank:	45
Score:	80.0
Income Group Avg.	75.9
Geographic Group Avg.	78.4

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	97.5	93.2	89.3
Water (eco)	69.5	65.4	75.7
Biodiv. and Habitat	74.9	49.7	50.1
Prod. Nat. Resources	72.8	84.7	83.1
Climate Change	68.4	69.7	73.4
Environmental Health	88.5	82.4	84.3

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	3.0	*0*	94.6
ACSAT	Adequate Sanitation (%)	68.0	*100*	62.6
WATSUP	Drinking Water (%)	83.0	*100*	71.1
PM10	Urban Particulates (µg/m^3)	6.840269	*20*	100.0
INDOOR	Indoor Air Pollution (%)	5.0	*0*	94.7
OZONE_H	Local Ozone (ppb)	8.5	*85*	99.5
OZONE_E	Regional Ozone (tons SO_2 / populated land)	4,298,169.9	*3,000*	99.0
SO2	Sulfur Dioxide Emissions (ppb)	1.7	*0*	96.1
WATQI	Water Quality (GEMS Water Quality Index score)	69.7	*100*	49.6
WATSTR	Water Stress (%)	9.7	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.1	*10*	91.5
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	55.6	*100*	55.6
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	3.2	*10*	32.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	87.7
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	-0.0	*0*	81.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	68.4
IRRSTR	Irrigation Stress (CIESIN, %)	21.3	*0*	75.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	46.4	*0*	0.5
AGINT	Intensive Cropland (CIESIN, %)	0.9	*0*	98.6
BURNED	Burned Land Area (%)	1.1	*0*	91.6
PEST	Pesticide Regulation (points)	3.0	*22*	13.6
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	13.4	*2.24*	78.4
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	225.0	*0*	75.7
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	4.2	*0.85*	50.9

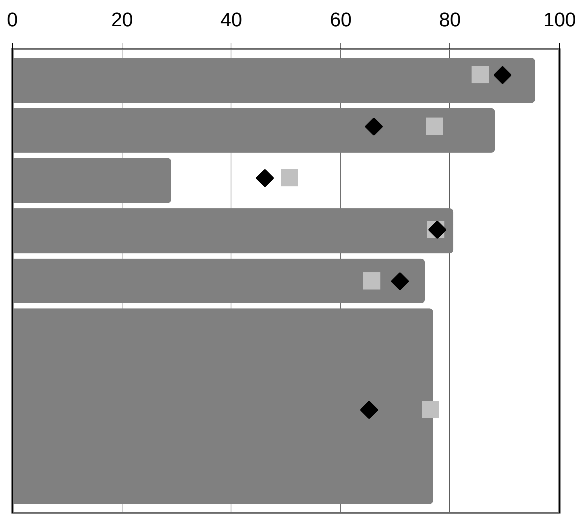
Viet Nam

EAST ASIA AND THE PACIFIC

GDP/capita 2005 est. (PPP) $2,925
Income Decile 7 (1=high, 10=low)

2008 EPI	
Rank:	76
Score:	73.9
Income Group Avg.	66.8
Geographic Group Avg.	72.2

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	94.9	89.6	85.6
Water (eco)	87.6	66.0	77.3
Biodiv. and Habitat	28.4	46.2	50.7
Prod. Nat. Resources	80.0	77.7	77.4
Climate Change	74.7	70.9	65.8
Environmental Health	76.3	65.2	76.5

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	4.0	*0*	92.8
ACSAT	Adequate Sanitation (%)	61.0	*100*	54.4
WATSUP	Drinking Water (%)	85.0	*100*	74.5
PM10	Urban Particulates ($\mu g/m^3$)	65.17169	*20*	62.0
INDOOR	Indoor Air Pollution (%)	69.6	*0*	26.7
OZONE_H	Local Ozone (ppb)	22.1	*85*	98.8
OZONE_E	Regional Ozone (tons SO_2 / populated land)	34,337,001.0	*3,000*	91.6
SO2	Sulfur Dioxide Emissions (ppb)	0.8	*0*	98.1
WATQI	Water Quality (GEMS Water Quality Index score)	87.1	*100*	78.5
WATSTR	Water Stress (%)	3.0	*0*	42.6
CRI	Conservation Risk Index (ratio)	0.1	*0.5*	28.5
EFFCON	Effective Conservation (The Nature Conservancy, %)	2.6	*10*	25.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	58.3	*100*	58.3
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.1	*10*	1.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.1	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.9	*0*	6.5
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	17.0	*0*	63.6
AGINT	Intensive Cropland (CIESIN, %)	11.8	*0*	81.4
BURNED	Burned Land Area (%)	0.3	*0*	97.9
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	2.9	*2.24*	98.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	406.0	*0*	56.2
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.0	*0.85*	69.2

2008 Environmental Performance Index

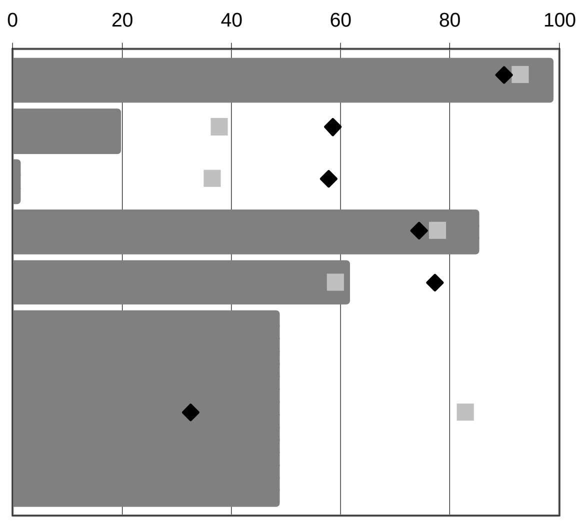
Yemen

MIDDLE EAST AND NORTH AFRICA

GDP/capita 2005 est. (PPP) $858
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	141
Score:	49.7
Income Group Avg.	52.1
Geographic Group Avg.	70.0

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	98.3	89.9	92.9
Water (eco)	19.2	58.7	37.8
Biodiv. and Habitat	0.8	57.8	36.5
Prod. Nat. Resources	84.7	74.4	77.8
Climate Change	61.1	77.3	59.2
Environmental Health	48.2	32.5	82.9

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	29.0	*0*	47.7
ACSAT	Adequate Sanitation (%)	43.0	*100*	33.3
WATSUP	Drinking Water (%)	67.0	*100*	44.0
PM10	Urban Particulates (µg/m^3)	90.79867	*20*	40.4
INDOOR	Indoor Air Pollution (%)	41.6	*0*	56.2
OZONE_H	Local Ozone (ppb)	0.0	*85*	100.0
OZONE_E	Regional Ozone (tons SO_2 / populated land)	0.0	*3,000*	100.0
SO2	Sulfur Dioxide Emissions (ppb)	1.4	*0*	96.6
WATQI	Water Quality (GEMS Water Quality Index score)	39.9	*100*	0.0
WATSTR	Water Stress (%)	55.9	*0*	100.0
CRI	Conservation Risk Index (ratio)	0.0	*0.5*	0.3
EFFCON	Effective Conservation (The Nature Conservancy, %)	0.0	*10*	0.1
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	0.2	*10*	2.0
FORGRO	Growing Stock Change (cubic meters/hectare)	1.0	*0*	100.0
MTI	Marine Trophic Index (UBC, Sea Around Us Project)	0.0	*0*	100.0
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)	0.3	*0*	66.7
IRRSTR	Irrigation Stress (CIESIN, %)	95.5	*0*	-0.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	17.3	*0*	72.6
BURNED	Burned Land Area (%)	1.2	*0*	90.9
PEST	Pesticide Regulation (points)	20.0	*22*	90.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	1.7	*2.24*	100.0
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	845.5	*0*	8.9
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	2.6	*0.85*	74.6

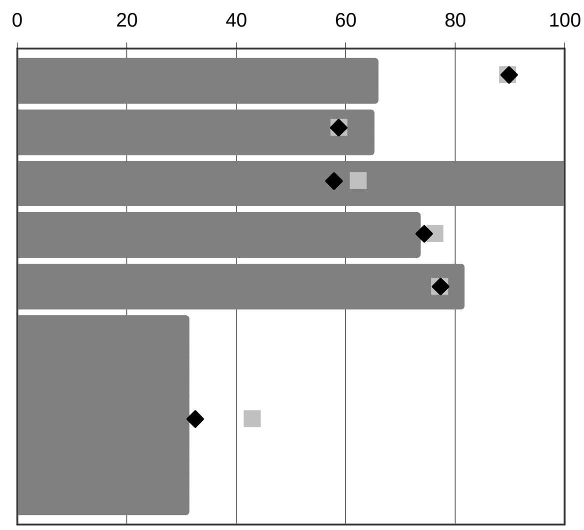
Zambia

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $949
Income Decile 10 (1=high, 10=low)

2008 EPI	
Rank:	130
Score:	55.1
Income Group Avg.	52.1
Geographic Group Avg.	57.9

Policy Categories



	Country	Income Group	Geographic Group
Air Pollution (eco)	65.3	89.9	89.6
Water (eco)	64.6	58.7	58.8
Biodiv. and Habitat	99.9	57.8	62.3
Prod. Nat. Resources	73.0	74.4	76.4
Climate Change	81.0	77.3	77.2
Environmental Health	30.8	32.5	43.0

Indicator Data

		Value	Target	Proximity to Target
DALY	Environmental Burden of Disease (life years lost)	42.0	*0*	24.3
ACSAT	Adequate Sanitation (%)	55.0	*100*	47.4
WATSUP	Drinking Water (%)	58.0	*100*	28.7
PM10	Urban Particulates (µg/m^3)	58.16983	*20*	67.9
INDOOR	Indoor Air Pollution (%)	87.3	*0*	8.1
OZONE_H	Local Ozone (ppb)	1,261.2	*85*	31.9
OZONE_E	Regional Ozone (tons SO_2 / populated land)	271,204,003.8	*3,000*	33.9
SO2	Sulfur Dioxide Emissions (ppb)	1.4	*0*	96.7
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	0.1	*0*	99.5
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	10.0	*10*	99.7
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)		*100*	
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	77.9
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	0.0	*0*	100.0
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.1	*0*	99.9
BURNED	Burned Land Area (%)	14.3	*0*	0.0
PEST	Pesticide Regulation (points)	9.0	*22*	40.9
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	12.0	*2.24*	81.2
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	6.8	*0*	99.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.4	*0.85*	62.6

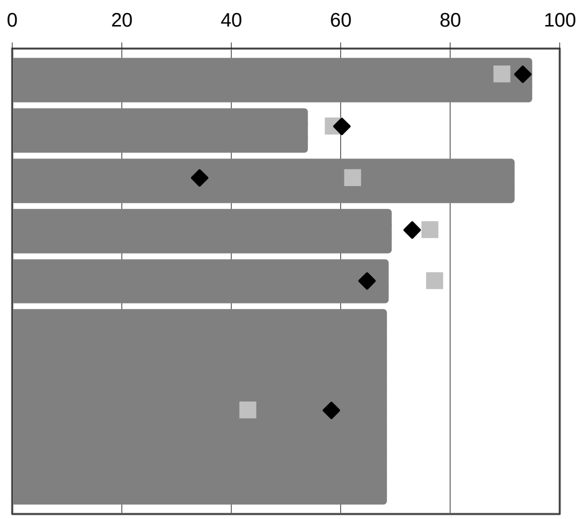
Zimbabwe

SUB-SAHARAN AFRICA

GDP/capita 2005 est. (PPP) $1,739
Income Decile 8 (1=high, 10=low)

2008 EPI	
Rank:	95
Score:	69.3
Income Group Avg.	60.2
Geographic Group Avg.	57.9

Policy Categories



	Country	*Income Group*	*Geographic Group*
Air Pollution (eco)	94.4	93.3	89.6
Water (eco)	53.4	60.3	58.8
Biodiv. and Habitat	91.1	34.2	62.3
Prod. Nat. Resources	68.7	73.1	76.4
Climate Change	68.1	64.8	77.2
Environmental Health	67.8	58.3	43.0

Indicator Data

		Value	Target	*Proximity to Target*
DALY	Environmental Burden of Disease (life years lost)	14.0	*0*	74.8
ACSAT	Adequate Sanitation (%)	53.0	*100*	45.0
WATSUP	Drinking Water (%)	81.0	*100*	67.7
PM10	Urban Particulates (µg/m^3)	28.30112	*20*	93.0
INDOOR	Indoor Air Pollution (%)	71.6	*0*	24.6
OZONE_H	Local Ozone (ppb)	165.6	*85*	91.1
OZONE_E	Regional Ozone (tons SO_2 / populated land)	41,936,901.1	*3,000*	89.8
SO2	Sulfur Dioxide Emissions (ppb)	0.4	*0*	98.9
WATQI	Water Quality (GEMS Water Quality Index score)	57.5	*100*	29.4
WATSTR	Water Stress (%)	20.4	*0*	81.9
CRI	Conservation Risk Index (ratio)	0.5	*0.5*	100.0
EFFCON	Effective Conservation (The Nature Conservancy, %)	9.8	*10*	98.3
AZE	Critical Habitat Protection (Alliance for Zero Extinction, %)	75.0	*100*	75.0
MPAEEZ	Marine Protected Areas (Sea Around Us Project, Fisheries Centre, UBC, %)	10.0	*10*	100.0
FORGRO	Growing Stock Change (cubic meters/hectare)	0.9	*0*	64.4
MTI	Marine Trophic Index (UBC, Sea Around Us Project)		*0*	
EEZTD	Trawling Intensity (UBC, Sea Around Us Project, %)		*0*	
IRRSTR	Irrigation Stress (CIESIN, %)	1.4	*0*	98.3
AGSUB	Agricultural Subsidies (% border agricultural prices)	0.0	*0*	100.0
AGINT	Intensive Cropland (CIESIN, %)	0.3	*0*	99.6
BURNED	Burned Land Area (%)	4.5	*0*	67.2
PEST	Pesticide Regulation (points)	0.0	*22*	0.0
GHGCAP	Emissions Per Capita (Mt CO_2 eq.)	3.9	*2.24*	96.8
CO2KWH	Emissions Per Electricity Generation (g CO_2 per kWh)	572.3	*0*	38.3
CO2IND	Industrial Carbon Intensity (CO_2 per $1000, USD 1995 PPP)	3.0	*0.85*	69.3

APPENDIX D: THE 2008 EPI, PILOT 2006 EPI, AND ENVIRONMENTAL SUSTAINABILITY INDEX

D.1. Comparison of the Pilot 2006 Environmental Performance Index and the 2008 Environmental Performance Index

Both the Pilot 2006 EPI and the 2008 EPI are outcome-oriented performance indices. Like the 2006 Pilot EPI, the 2008 EPI is an attempt to assess current environmental conditions to provide policymakers with information they can use now in forming and assessing policy responses to environmental challenges. Both indices use a proximity-to-target approach to assess countries' performance on accepted targets for environmental sustainability where governments can have an immediate effect on efforts to improve environmental conditions.

While following the same general principles of construction and interpretation, i.e., a multi-tier aggregation of proximity-to-target indicators, the 2008 EPI differs from the pilot index in several structural and substantive areas. Structurally, the 2008 EPI's Environmental Health and Productive Natural Resources categories are further broken down into sub-categories to reflect the thematic similarities between the underlying indicators and allow for a more appropriate weighting scheme. Overall, the number of indicators has increased to 25 compared to 16 in Pilot 2006 EPI. The 2008 EPI now presents a more thorough inclusion of data that provide information on a wider variety of environmental indicators.

Furthermore, the 2008 EPI does not use the hybrid weighting of the Pilot 2006 EPI, which combines statistically derived weights from Principal Component Analysis with weights reflecting the combined judgment of experts and policymakers. The reasons for this methodological change do not mean we are abandoning the application of rigorous statistical principles in the index's design but the need for a nuanced and balanced compromise between what the data are telling us on the one hand and what is sensible from a policy perspective on the other[3].

A third methodological change compared to the Pilot 2006 EPI is the very limited and controlled use of missing data imputation to fill data gaps. Since one of our guiding principles is to offer a globally relevant and applicable performance assessment tool, data coverage is of paramount importance. Unfortunately, the inclusion of more advanced indicators in the 2008 EPI often comes at the expense of geographical coverage. For this reason, we have used a suite of imputation methods, including regression and correlation analysis, to increase country coverage in these indicators: Adequate Sanitation, Drinking Water, Indoor Air Pollution, Water Quality Index, GHG Emissions Per Capita, CO_2 Emissions per Electricity Generated, and Industrial Carbon Intensity. Since these imputed values may reflect the true but unknown values to varying degrees of accuracy, we have clearly marked them in the data tables.

[3] Although PCA weights reflect the importance, expressed as fractions of variation in the data that can be explained, of an indicator relative to others with respect to the principal component(s), these weights are not always representative of the policy attention given to an environmental issue. In addition, since the PCA weights depend on the data, their reliability depends on the quality of the data and, furthermore, subsequent releases of the index would with high likelihood result in different weights, which does not generally coincide with changes in policy attention.

Substantively, the 2008 EPI demonstrates our commitment to identifying the best available and developing the best possible environmental performance indicators that are currently available at the global level. We believe that the new 2008 EPI is a continued improvement and makes a significant contribution to environmental performance assessment.

Specifically, the 2008 EPI has improved upon the 2006 EPI in the environmental health area through the use of Disability Adjusted Life Years (DALY's), which more fully capture the effect of environmental conditions on human health and productivity than the child mortality indicator in the Pilot EPI. The 2008 EPI also more fully captures the effects of air pollution on both human health and the environment, adding indicators for sulfur dioxide pollution and separating the health and ecological effects of ground-level ozone according to scientific evidence and large-scale tempo-spatial modeling results. We have further strengthened the water indicators, primarily by advancing the measurement of water quality with information on pH, dissolved oxygen, conductivity, and total phosphorus in addition to the 2006 EPI's inclusion of data on nitrogen.

Perhaps one of the biggest changes in the 2008 EPI is the weight placed on the new Climate Change category, which absorbs the 2006 EPI's Sustainable Energy category, and the additional data included in its calculation: GHG Emissions Per Capita, CO_2 Emissions Per Electricity generated, and Industrial Carbon Intensity. Because of the greater recognition of climate change as one of the most pressing environmental challenges, the 2008 EPI weights climate change much more heavily in the ecosystem vitality objective. As a result, countries with otherwise advanced environmental regulatory and enforcement systems such as the United States and Australia, dropped in this year's EPI in part because of this expanded category.

Biodiversity, Agriculture, and Fisheries were all improved with new and more sophisticated indicators in this year's EPI. The Agriculture category includes measures assessing intensive cropland coverage, pesticide regulations, irrigation stress, and burned land area in addition to the agricultural subsidy data included in the 2006 EPI. The subsidies data have also been improved in their consistency and extent by tapping into an expanded data source. The Fisheries category assesses Trawling intensity and the Marine Trophic Index compared to the overfishing indicator used in the 2006 Pilot EPI. Finally, the Biodiversity and Habitat category offers a completely new suite of advanced conservation and threat measures including the Conservation Risk Index and assessments of the Effectiveness of Conservation Efforts, Critical Habitat Protection, and – importantly – Marine Protected Areas.

Despite the progress made in indicator development and data availability, the 2008 EPI continues to highlight the glaring gaps in global environmental data. Several important environmental concerns such as population exposure to pollutants and toxins, trans-national outsourcing and spill-over effects of 'dirty' industries, and the effects of widespread human activities on locally sensitive conditions (e.g., critical loads of sulfur dioxide deposition) still cannot be measured adequately at the global level because of lack of data, targets, and/or scientific certainty. Although the 2008 EPI contains 149 countries, many countries are not included because of the lack of information about key indicators, despite our efforts to produce meaningful imputations. This makes tracking and monitoring of environmental progress and success of policy and management efforts difficult, and although the 2008 EPI improves upon the 2006 EPI, much work remains to be done in establishing consistent data collection and monitoring of environmental metrics.

D.2. Comparison of the Environmental Sustainability Index and the Environmental Performance Index

Between 1999 and 2005 the Yale and Columbia team published four Environmental Sustainability Index reports aimed at gauging countries' overall progress towards "environmental sustainability." Since then our focus has shifted to environmental performance, measuring the ability of countries to actively manage and protect their environmental systems and shield their citizens from harmful environmental pollution.

Why this shift in our work? While sustainability research continues at a fast pace across the world, a commonly accepted and measurable definition of environmental sustainability remains elusive. Distinct approaches have emerged and consolidated within different disciplines, and cross-disciplinary exchange has promoted new advances, but the challenges are still formidable. In addition, the immediate value to policymakers was limited by the complexity of the problem, scientific uncertainties about cause-effect relationships, and the intricate and competing linkages between policy actions and the social, economic, and environmental aspects of sustainable development.

In contrast, environmental performance offers a more relevant and easily measured approach to reducing our societal environmental impacts. The possibility of selecting outcome-oriented indicators for which policy drivers can be identified and quantified is an appealing scenario for policymakers, environmental scientists and advocates, and the public alike. This method promotes action, accountability, and broad participation. The EPI's proximity-to-target approach in particular highlights a country's shortcomings and strengths compared to its peers in a transparent and easily visualized manner. These signals can be acted on through policy processes more quickly, more effectively, and with broader consensus than most sustainability metrics. In some cases, the EPI targets can already be viewed as sustainability targets, while other indicators represent the most widely accepted or most stringent agreed-upon policy goals.

Aside from these main conceptual and structural differences, how exactly do the EPI and ESI differ from each other? A summary of the differences is shown in Table A for the 2005 ESI, 2006 Pilot EPI, and 2008 EPI.

In contrast to the relative measurements of the ESI, the EPI is a benchmark index. The sustainability thresholds of many environmental and socio-economic aspects are extremely difficult to determine and, given the dynamics of human and ecological change, might not exist in an absolute sense. The ESI evaluates environmental sustainability relative to the paths of other countries. The EPI, on the other hand, uses the distance to performance targets as the main criteria, acknowledging that these targets represent imperfect goalposts and can depend on local circumstances.

Although both the EPI and ESI are multi-tier, average-based indices, they significantly differ in the categories of which they are composed. In line with sustainability research, the ESI considers not only environmental systems but also adapts the Pressure-State-Response framework to reflect institutional, social, and economic conditions. The EPI, in contrast, considers only ecological and human health outcomes regardless of the auxiliary factors influencing them. The basic premise of the EPI is therefore normative. Each country is held to the same basic conditions necessary to protect human and environmental health now and in the future. The benchmarks for these conditions are enshrined in the 25 indicator targets. As a result of the EPI's narrowed scope, the categories and indicators tracked are both different and smaller in number.

Data quality and coverage play important roles in both the EPI and ESI. We believe that the value of a sustainability and performance index is diminished if only a handful of countries can be included and compared. Yet, while the ESI makes relatively extensive use of imputation techniques to fill data gaps, the availability of actual 'real' data was given much higher weight in the EPI to reflect the relevance of observed data in the policy process (2008 EPI does impute missing values in selected variables to maintain country coverage). As our knowledge of cause-effect relationships and statistical methods for data imputation continues to increase, however, it is likely that model-based imputations will gain more credibility in the future and in some cases even outperform real observations in accuracy.

Table A: Comparison of ESI and EPI objectives and design

Category	2005 ESI	2006 EPI	2008 EPI
Objective	Gauges the long term environmental trajectory of countries by focusing on "environmental sustainability"	Assesses current environmental conditions	Assesses current environmental conditions
Design	Provides a relative measure of past, current, and likely future environmental, socio-economic, and institutional conditions relevant to environmental sustainability	Provides an absolute measure of performance by assessing countries on a proximity-to-target basis	Provides an absolute measure of performance by assessing countries on a proximity-to-target basis
Design and theoretical framework	Tracks a broad range of factors that affect sustainability using an adaptation of Pressure-State-Response framework	Focuses narrowly on areas within governmental control using a framework of absolute, fixed targets	Focuses narrowly on areas within governmental control using a framework of absolute, fixed targets

Structure	Multi-tier consisting of **5 components:** Environmental systems, Reducing environmental stresses, Reducing human vulnerability, Social and institutional capacity, Global stewardship undergirded by **21 indicators** and **76 variables** (Note: the variables in the ESI can be compared with indicators in the EPI and indicators in the ESI are more reflective of the categories in the EPI)	Multi-tier consisting of **2 objectives:** Environmental health and Ecosystem vitality, **6 categories:** environmental health, air quality, water resources, biodiversity and habitat, productive natural resources, and sustainable energy, and **16 indicators**	Multi-tier consisting of **2 objectives:** Environmental health and Ecosystem vitality, **6 categories:** environmental health, air quality, water resources, biodiversity and habitat, productive natural resources, and climate change, and **25 indicators**
Data quality and coverage	Stringent grading system; flexible data requirements allow for missing data to be imputed	Stringent data quality requirements, no imputation of missing data	Stringent data quality requirements; imputation of missing data in selected indicators
Environmental Health (EPI objective, ESI indicator)	Indicators compare mortality rates of environmentally related diseases using proxy indicators: child mortality, child death from respiratory diseases, and intestinal infectious diseases	Estimates environmentally-related impacts on health through child mortality, indoor air pollution, urban particulates concentration, access to drinking water, and adequate sanitation	Estimates environmental burden of disease directly using WHO-developed disability adjusted life year (DALYs), local ground-level ozone and urban particulate concentrations, indoor air pollution, access to drinking water, adequate sanitation
Air pollution	Measures effects of air pollution as well as levels of air pollution: Coal consumption per capita, anthropogenic NO2, SO2, and VOC emissions per populated land area, and vehicles in use per populated land area	Measures air quality: Percent of households using solid fuels, urban particulates and regional ground-level ozone concentration	Measures atmospheric conditions pertaining to both human and ecological health: Health – Indoor air pollution, urban particulates, local ozone Ecosystems – Regional ozone, sulfur dioxide emissions (as proxy for its ecosystem impacts when deposited)
Water Resources and stress	Measures both water resources and stress: *Quantity* - Freshwater per capita and internal groundwater per capita *Reducing stress* – BOD emissions per freshwater, fertilizer and pesticides consumption per hectare arable land, percentage of country under water stress	Measures both water resources and stress: water consumption and nitrogen loading	Measures water stress through water stress index
Water Quality	Key water quality indicators: dissolved oxygen, electrical conductivity, phosphorus concentration, suspended solids	Proxy for water quality: nitrogen loading.	Assesses water quality through composite Water Quality Index, which incorporates dissolved oxygen, pH, electrical conductivity, total nitrogen and total phosphorous concentrations

Climate Change / Energy	Tracks emissions per capita and per GDP Eco-efficiency indicator includes a measure of energy efficiency and renewable energy	Links energy to climate change via CO_2 emissions per GDP, percent of renewable energy and energy efficiency	Explicitly assesses contributions to climate change through Emissions per capita, emissions per electricity generated, and industrial carbon intensity
Biodiversity & Habitat	Focuses on species protection: Percentage of threatened birds, mammals, and amphibians in a country, the National Biodiversity Index (measures species richness and abundance), and threatened ecoregions	Focuses on biome and resource protection: Wilderness protection, ecoregion protection, timber harvest rate, and water consumption	Focuses on biome protection, including marine areas, and species conservation through Effective conservation, Conservation Risk Index, and critical habitat protection, indicators
Forests	Proxies for sustainable forest management: Annual change in forest cover and Percentage of total forest area that is certified for sustainable management	Proxy for sustainable forest management: Timber harvest rate	Proxy for sustainable forest management: Change in growing stock
Agriculture	Proxy for sustainable agriculture: Agricultural subsidies	Proxy for sustainable agriculture: Agricultural subsidies	Proxies for sustainable agriculture: Agricultural subsidies, Intensive cropland usage, Pesticide regulations, and Burned land area
Fisheries	Proxy for sustainable fisheries management: Overfishing	Proxy for sustainable fisheries management: Overfishing	Proxy for sustainable fisheries management: Trawling intensity, Marine Trophic Index

APPENDIX E: METHODOLOGY & MEASUREMENT CHALLENGES

We believe that transparency is essential for good analysis, and aids concrete policy targets. This appendix provides a detailed description of the steps included in calculating the 2008 EPI and the statistical techniques used. The issues addressed in the following sections mirror those commonly encountered in the computation of composite indices: indicator and country selection, missing data treatment, standardization, aggregation and weighting methodologies, as well as performance testing (OECD 2003).

E.1. Country Selection Criteria

Ideally, the EPI should include all of the world's countries and territories. However, persistent data gaps require that we balance geographical coverage against the validity and accuracy of available data. Wherever possible, and in line with our goal of providing a reliable and accurate picture of environmental performance of every country in the set, the 2008 EPI contains only countries with complete data coverage across all indicators and policy categories, with the following exceptions:

- Inclusion in the Fisheries indicator requires that countries have at least one of the two constituent indicators (Trawling Intensity and Marine Trophic Index).
- Inclusion in the Productive Natural Resource policy category requires countries to have at least two of the three constituent indicators (Forestry, Fishery, Agriculture). First, for some indicators – such as those in the Productive Natural Resources category, data availability depends in part on a country's geographical location. Countries with no forests, no active fishing fleets and industries and no land used in agriculture may be missing some indicators associated with those activities but should be, and are, still included in the EPI.
- We imputed values for some countries for three indicators in the Environmental Health policy category: Drinking Water, Adequate Sanitation and Environmental Burden of Disease; Water Quality in the Water category; Agriculture Subsidies in the Productive Natural Resources category; as well as the indicators in the Climate Change category. In the case of the Drinking Water and Adequate Sanitation data there is a very high correlation between the indicator data and a rich body of literature and practitioners' knowledge on the relationships between these measures and development. This knowledge base permits us to use available data to impute any missing values. The table below includes the complete list of indicators for which date were either averaged or imputed:

Indicator Name	Indicator Code	Missing Data Method
Environmental Burden of Disease	DALY	Imputation based on income per capita T
Adequate Sanitation	ACSAT	Imputation based on income per capita (log) and WATSUPa
Drinking Water	WATSUP	Imputation based on income per capita (log)
Water Quality	WATQI	Imputation based on regional average and non-reporting penalties
Critical Habitat Protection	AZE	averaged around for countries with no AZE sites
Growing Stock Change	FORGRO	Imputation based on percentage change in forest cover 2000-2005.
Marine Protected Areas	MPAEEZ	averaged around for countries with no EEZ
Irrigation Stress	IRRSTR	averaged around for countries with no agricultural land
Intensive Cropland	AGINT	averaged around for countries with no agricultural land
Greenhouse Gas Emissions Per Capita	GHGCAP	GHG emission imputation based on CO2 (CDIAC); Land emission imputation based on regional average of emissions per square kilometer
Agricultural Subsidies	AGSUB	Imputations based on 2006 EPI's AGSUB proximity-to-target score. Missing 2008 AGSUB values were given scores that correspond to equivalent proximity-to-target scores
Emissions per Kilowatt Hour of Energy Produced	CO2KWH	Imputations based on renewable energy as a percentage of all energy production.
Industrial Carbon Intensity	CO2IND	Imputations CO2 emissions per GDP

E. 2. Target Selection

An additional challenge arises from the difficulty of determining clear performance targets for some of the indicators. For instance, in Europe, sulfur dioxide emission targets are based on sophisticated monitoring and modeling exercises that permit detailed, differentiated targets that take into account differences in emission trajectories, deposition sensitivities, and mitigation costs. There is no corresponding information base for assigning differential targets on a global basis, nor has there been any similar negotiating process to lend such targets legitimacy and authority. Therefore, our global target on sulfur dioxide (reduction to zero) is cruder than we would expect a fully mature global sulfur dioxide policy regime to adopt. Nonetheless, we consider such crude targets useful for the purpose of broad comparison among countries, both within single issues and collectively across multiple issues.

E.3. Missing Data

Despite improvements, data gaps remain a very serious obstacle to a more refined EPI and to data-driven policymaking more generally, Many countries, particularly in the developing world, lack data on a number of critical indicators. More generally, persistent data gaps, lack of time series data, or incomparability of data across countries means that several important policy challenges cannot be addressed adequately at present. For instance, air quality indicators based on ground-monitoring are unavailable for many developing countries and are further limited by weak data comparability even in developed countries, which combined with the dependency of conditions on local environmental and/or socio-economic characteristics severely reduces possibilities to impute data from one location to another.

Missing data is a major source of uncertainty in index construction. Although increasingly sophisticated statistical methods exist for imputing missing data, they entail assumptions regarding the causes for the missing values. In addition, application of these methods requires knowledge and careful consideration of the strengths and weaknesses of various techniques in light of the available data. To continue the air pollution example, such data are highly dependent on spatial and temporal conditions, which complicate the development of imputation models that are applicable to different regions and countries. In addition, the essence of the EPI—as a gauge of actual environmental results—requires particular confidence that any numbers imputed reflect ground-level circumstances and outcomes. We have used well-recognized imputation models to impute missing data for a number of indicators, as noted above.

Still, the lack of data leads limits the comprehensiveness of the EPI. In the air pollution context, pollutants such as lead, ultra-fine particulate matter (PM2.5), and volatile organic compounds (VOCs) do not have sufficient ground observations available and are not updated on a sufficiently frequent basis to permit robust performance metrics. Although satellite-based observation of air pollutants is advancing rapidly and provides more reliable estimates to fill in the gaps, availability and use of these technologies is still constrained. The result of these data gaps and inconsistencies is that only measures of regional ozone and sulfur dioxide emissions are included in the 2008 EPI to represent the ecological dimension of air pollution. The lack of adequate data indicates the need for increased national and international efforts to improve the same, specifically regarding better air quality measures.

More work remains to be done to both address the lack of available information on environmental policy issues and reduce serious shortcomings in the quality, geographical coverage, or timeliness of the available data. Since the publication of the Pilot 2006 EPI, we have been able to compile data for the crucial issues of biodiversity and conservation measures, fisheries data, and climate challenge. On the other hand, we are still calling on organizations and governmental bodies involved in environmental monitoring and data collection to invest in initiatives to assemble measures for many fields and issues including:

- Concentrations of additional criteria air pollutants
- Exposure to toxic chemicals
- Blood lead levels
- Soil degradation
- Sector-specific greenhouse gas emissions
- Pesticide application
- Effectiveness of protected area management
- Deposition of sulfur dioxide compare to critical loads

We hope that increased initiative will make it possible to fill these data gaps in the future.

E. 4. Calculation of the EPI and Policy Category Sub-Indices

Indicator Transformation for Cross-Country Comparisons

Environmental data are measured on various scales and require standardization to permit cross-country comparisons. Standardization also ensures that no indicator dominates the aggregated EPI and policy indices, and conveys information about a country's environmental performance in an easy-to-understand yet meaningful way using a scale that quickly reveals a country's position vis-à-vis other countries as well as with respect to desirable performance outcomes. For these reasons, the 2008 EPI– as in the Pilot 2006 EPI – uses a proximity-to-target approach that evaluates how close a country is to a desirable performance target for each of the 25 indicators.

Initially, we examined the distribution of each indicator to identify whether extreme values skew the aggregations of some indicators. Our analysis concluded that the extreme values are more indicative of being "outliers"(values numerically much larger or smaller than the rest of the distribution) than of being the realizations of a skewed distribution. Accordingly we adjusted outliers using a recognized statistical technique called winsorization. Winsorization essentially involves setting values falling below the 2.5th percentile to the 2.5 percentile value, and values above the 97.5th percentile equal to the 97.5th percentile. In a small number of cases even this level of winsorization left significant outliers, and in such cases we winsorized at the 5.0 or 95.0 percentile. Our decision rule for moving to this greater level of winsorization was based on a comparison of the two alternative values. If the ratio of the 97.5 percentile value to the 95 percentile value (or the 5.0 percentile value to the 2.5 percentile value) was greater than 5, indicating a large spread between them, we winsorized at the 5.0 or 95.0 level.

Following the adjustment of outliers and extremely skewed indicators, the proximity to target values are calculated as follows:

[100 – (target value – winsorized value)] x 100 / (100 – minimum winsorized value)

This calculation is based on how far each country is from attaining the target score for each indicator and ensures comparability across the 25 indicators. In addition to its simplicity, this transformation also allows the interpretation of a country's performance as the shortfall from achieving the target expressed in percent. For instance, a country's score of 80 for the Drinking Water indicator means that it is 20% short of meeting the target; in this case 20% of the population does not have access to drinking water. It should be noted, however, that the standardization technique described here does not eliminate differential spreads in the data among the indicators, i.e., the variance of each indicator is not standardized and thus indicators still contribute somewhat differently to the aggregated policy and EPI scores.

For the majority of indicators, the choice of these targets is based on generally accepted sustainability criteria, international treaties, scientific and expert judgments, but in some cases, such as sulfur dioxide emissions, no such targets are available due to lack of international agreement and/or the significant influence of local ecological and other conditions. In such instances, the specification of a performance target had to be based on pragmatic realities rather than ideal goals.

We decided not to give countries exceeding specified targets additional “performance credits”, rather we have set their score to the target. This form of “target winsorization” is done to reduce the ability of countries to use above-target performance in one area to make up for poor performance on other indicators. Since the majority of indicator targets also reflect sustainability criteria, it could even be argued that overachievement is an inefficient deployment of a country’s resources. In some cases, moreover, above-target results may be a function of data anomalies or reporting errors.

Data Quality and Coverage

Despite the continued problem of data gaps and problems in the comparability, spatial, and temporal coverage of relevant environmental data, the 2008 EPI is an important step forward in our ability to measure country-level, policy-driven progress toward identified environmental goals.

More work remains to be done to both address the lack of available information on environmental policy issues and reduce serious shortcomings in the quality, geographical coverage, or timeliness of the available data. Since the publication of the Pilot 2006 EPI, we have been able to compile data for these important issues: biodiversity and conservation measures, fisheries data, and climate challenge. On the other hand, we are still calling on organizations and governmental bodies involved in environmental monitoring and data collection to invest in initiatives to assemble needed metrics and data.

Hopefully, continued efforts will make it possible to fill these data gaps in the future.

Of further relevance in the context of data coverage is consideration of how environmental pollution and resource use affect countries at different stages of economic development. The cluster analysis and presentation of EPI results for various “country peer groups” highlights that different EPI indicators are of high importance to various country groupings. While this is an important issue for weighting the indicators, it also demonstrates that indicator selection for a global index is a difficult task. While our search for additional and better data is ongoing, this EPI contains 25 indicators for 149 countries, which we believe reflect the most important and best available measures to track and assess environmental performance. Aside from policy relevance, only datasets with sufficient coverage, data “freshness”, and methodological consistency were chosen.

E.5. Cluster Analysis

Cluster analysis refers to a rich suite of statistical classification methods used to determine similarities (or dissimilarities) of objects in large datasets. We use this technique to identify groupings of relevant peer countries. Within each peer group, countries have a better basis for benchmarking their environmental performance because the group members are similar with respect to the data used to classify them, so the technique provides a good starting point in the search for best practices.

Cluster Analysis Techniques

There is no best method for conducting cluster analysis and the results of such analyses are subject to interpretation. We applied two different algorithms to explore the data structure using a non-parametric, distance-based agglomerative clustering algorithm known as Ward's method.

Agglomerative clustering begins with as many individual clusters as there are data points (in this case, countries). It then successively combines countries that are most similar to each other with respect to a quantitative similarity measure until all countries are joined in a single cluster.

The similarity measure decreases during this process, while the within-cluster dissimilarity increases as more and more countries are added. The tradeoff lies therefore in choosing a similarity measure, or "pruning value", that yields both a relatively small number of clusters and a high level of similarity. We determined that seven clusters yield a reasonable division between the countries.

After determining the number of country clusters, we use the k means clustering method developed by Hartigan and Wong (Hartigan and Wong 1979) to determine cluster membership. K means is a non-hierarchical method that requires that the number of clusters, k, be specified up-front (hence the preliminary use of Ward's method) and then iteratively finds the disjoint partition of the objects into k homogenous groups such that the sum of squares within the clusters is minimized. As long as the data are not skewed, then each variable receives an equal weight in the cluster. (What if the data are skewed?) The algorithm converges in fewer than 10 iterations for the 16 proximity-to-target indicators.

Specific Observations

Several interesting patterns became apparent during the cluster analysis process. Firstly, there is a strong association between a country's EPI score and its Ecoystem Vitality score, and the former cannot be lower than the latter. The same rule does not hold true with the EPI and Environmental Health scores, where an association exists, but top performers show a tail.

It also became apparent that there are some trends in the data at the indicator level. Six countries received scores that are far lower than the median for Fisheries, while there are many countries which receive the top score for Forestry. This pattern naturally lends itself towards two clusters: those countries at the top, and those who are not. Almost all countries score very well on the Air Quality (relating to Environmental Health) indicator, but a country's score for biodiversity shows very low correlation with it's score on any other indicator.

APPENDIX F: UNCERTAINTY AND SENSITIVITY ANALYSIS OF THE 2008 EPI

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The analysis presented in this Appendix aims at validating and critically assessing the methodological approach undertaken by the EPI team at Yale and Columbia University. Although this analysis was undertaken in the past versions of the Index, the new data and framework used necessitates such type of analysis, so as to ensure that the methodology remains appropriate. At the same time, it aims at identifying those EPI countries with and without very robust ranks. For the first group, policy signals derived from the EPI can be taken with the confidence that changes in the EPI methodology would have a negligible effect on the country's measured performance, while for the latter a more cautious approach is advised vis-à-vis translating the EPI rank into policy actions.

A clear understanding of the EPI methodology is crucial to the success of the robustness assessment of the index. In a first step, we thus considered if it is possible to reproduce the EPI results given the data and information provided to the public? The answer is "*Yes*." The EPI website provides enough information to the public, with some statistical knowledge, in order to replicate the entire EPI methodology and results.

Indisputably, the construction of the EPI demands a sensitive balance between simplifying an environmental system and still providing sufficient detail to detect characteristic differences (Diener and Suh, 1997). This leaves scientists and policymakers with a complex and synthetic measure that is almost impossible to verify against true conditions, particularly since environmental performance cannot be measured directly (Eyles and Furgal, 2002; von Schirnding 2002). It is therefore taken for granted that the EPI can not be verified. Yet, in order to enable informed policymaking and be useful as a policy and analytical assessment tool, the EPI needs to be assessed in regard to its validity and potential biases. The first question to be answered is:

F.1. How is the EPI associated to its subcomponents and policy categories?

Following the replication process, correlation analysis is performed to examine the relationship between the EPI scores and the indicator scores, the policy scores and finally the objectives scores. Correlation analysis is a basic but widely used tool for "confirming" the mathematical design of indices. Booysen (2002) recommends that a weak correlation between an underlying indicator and an index should result in the exclusion of the respective indicator from the process. A major drawback of correlation analysis though is the fact that a strong correlation does not necessarily imply a strong influence or representation of the indicator in the overall index. In other words, any random variable could potentially show strong correlation with the index without actually being part of the index. A simple rank correlation analysis between the EPI scores and the category scores (Table 1) reveals that the EPI has very high correlation with the Environmental Health category ($r_S = 0.90$) and the Water category ($r_S = 0.59$), and a fairly strong relationship with the Productive Natural Resources ($r_S = 0.34$) and the Climate Change ($r_S = 0.18$) categories. However, the relation of the EPI to two of the six policy categories, namely to Air pollution and Biodiversity & Habitat, appears to be random and non-significant at the 95% level. Relationships among the policy categories themselves vary, but they are in general low and in most cases random. It appears, thus far that the six policy categories represent totally different aspects of environmental performance – which is desirable from an index development perspective. Although it is desired not to have very high association between the main components of a composite indicator (since representing different dimensions is a key quality feature of a composite indicator), the negative association between several of the policy categories leads to a conclusion that there may be trade-offs between them, which creates an additional difficulty in an index that combines such different dimensions with the implicit assumption that strong performance on all policy categories is possible simultaneously. In this case it may be argued that there should be no single measure of environmental performance, but rather one should focus on the six policy categories and identify linkages and trade-offs between them, instead of attempting to aggregate them into a single score.

Table F.1: Spearman rank correlation coefficients for the EPI, the two objectives and the six policy categories

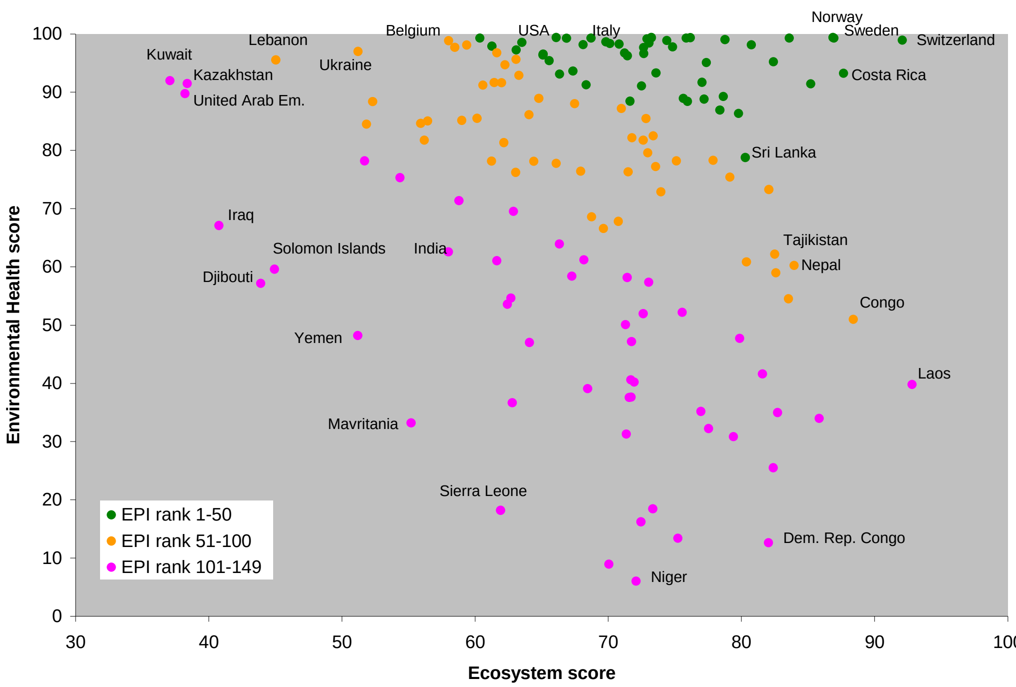
	Policy categories						*Objectives*	
	Environmental Health	Air pollution (effects on nature)	Water (effects on nature)	Biodiversity & Habitat	Productive Natural Resources	Climate Change	Ecosystem Vitality	Environmental Health
EPI	0.90	-0.09*	0.59	-0.04*	0.34	0.18	0.29	0.90
Environmental Health		-0.18	0.42	-0.22	0.29	-0.16	-0.08*	
Air pollution (effects on nature)			-0.06*	-0.12	0.05*	0.07*		
Water (effects on nature)				-0.04*	0.18	0.26		
Biodiversity & Habitat					-0.01*	0.18		
Productive Natural Resources						-0.08*		

* coefficient not significant at the 95% level

Further study of the association between the EPI and the 25 underlying indicators reveals that there is a strong dominance of just a few indicators in the overall EPI. Thus, the primary drivers of the EPI ranking are four indicators: the Environmental Burden of Disease (DALY), the Adequate Sanitation (ACSAT), the Drinking Water (WATSUP) and the Indoor Air Pollution (INDOOR). Somewhat surprisingly, the three indicators related to climate change, although being weighted comparatively strongly, do not exert much influence on the EPI results. Parsimony principles would suggest excluding the non-influential indicators from the EPI framework (Gall, 2007). This, however, may not be advisable from a policy perspective, unless excluding certain indicators is supported by expert opinion on the relevance of the indicators to the issue. An eventual revision of the EPI framework may be undertaken in terms of the weighting issue.

The scatter plot between the two main Objectives of the EPI, Environmental Health and Ecosystem Vitality, in Figure 1 points to an understandable - though problematic – trade-off between these two objectives. Countries may end up choosing one or the other path in pursuing environmental performance in a somewhat mutually exclusive pattern, perhaps descriptive of different scales and time horizons. This graph, therefore, points to a major problem in translating sustainability-oriented performance into practice. At the same time, the high association between the EPI scores and the Environmental Health scores, and the random association between the EPI scores and the Ecosystem Vitality scores leads to an Ecosystem's performance behaving as a noise term superimposed to Environmental Health.

Figure 1. Scatterplot of the Environmental Health versus the Ecosystem Vitality scores



The conclusions from this preliminary analysis already point to the conclusion that the 2008 EPI has an architecture that highlights the complexity of translating environmental stewardship into straightforward, clear-cut policy recipes. The trade-offs within the index dimensions are a reminder of the danger of compensability among the dimensions while identifying the areas where more work is needed to achieve a coherent framework in particular in terms of the relative importance of the indicators that compose the framework.

Robustness of the EPI results to the methodological assumptions

There is ample evidence of the creativity in the community of composite indicators developers, which not only comes as a response to the demands of the user/stakeholder community, but it also reflects the disagreements within the research community on which indicators influence a particular phenomenon and on their relative importance (Cutter *et al.* 2003). When building an index to capture environmental performance, it is therefore necessary to take stock of existing methodologies to avoid skewing the assessment and decision-making.

By acknowledging a variety of methodological assumptions in the development of an index that are intrinsic to policy research, one can determine whether the main results change substantially when the assumptions are varied over a reasonable range of possibilities (Saisana *et al.* 2005; Saisana and Tarantola, 2002; Saltelli *et al.* 2000). The advantages offered by considering different scenarios to build the EPI could be: to gauge the robustness of the EPI results, to increase its transparency, to identify the countries whose performance improves or deteriorates under certain assumptions, and to help frame the debate around the use of the EPI for policymaking. The alternative scenarios to build the EPI should, however, bear certain quality features:

1. No strong dominance of a few indicators at the expense of others in the index.
2. No deliberate bias of the index results against a few countries.
3. Simplicity and easy reproduction of the index.

In the case of the 2008 EPI, the assumptions that needed to be tested, are: (1) the measurement error of the raw data, (2) the choice of capping the 25 indicators at the selected targets, (3) the choice to correct for skewed distributions in the indicator values, (4) the weights assigned to the indicators and/or to the subcomponents of the index, and finally (5) the aggregation function at the policy level. The analysis that we have undertaken maps the effects of these uncertainties and assumptions on the EPI country rankings. We also seek to use uncertainty and sensitivity analyses to assess whether useful conclusions can be drawn from the index given the construction methodology selected.

Sensitivity analysis is the study of how output variation in models such as the EPI can be apportioned, qualitatively or quantitatively, to different sources of variation in the assumptions. In addition, it measures the extent to which the composite index depends upon the information that composes it. Sensitivity analysis is closely related to uncertainty analysis, which aims to quantify the overall variation in the ranking resulting from uncertainties in the model input.

All of the five assumptions discussed above can heavily influence the output—and reliability—of the EPI. Using uncertainty and sensitivity analysis, we systematically evaluated the impact that the methodological and conceptual choices highlighted above have on the robustness of the EPI scoring and ranking. Our study aimed to answer four main questions.

1. What associations are there between the EPI and its indicators and/or subcomponents?
2. How do the EPI ranks compare to the ranks under combinations of alternative scenarios derived from the 5 assumptions?
3. Which countries have the most volatile ranks and why?
4. What are the major sources of variability in the EPI rankings?

The first question has already been discussed previously. Next, we will focus on the remaining three questions which call for a combined application of uncertainty and sensitivity analysis.

Our approach

We focus on testing the five central methodological issues, which are translated into 40,000 simulations of different combinations of them.

To be more specific, the measurement error is introduced by adding to each value in the dataset a random error with a mean equal to zero and standard deviation equal to the observed standard deviation of the corresponding indicator. Some thousands of alternative datasets that include error in some of the data values are generated. The two triggers on capping at target values and correcting for skewed data distributions are binary (yes/no). Regarding the weights to be attached to the indicators and/or the subcomponents, we have identified four alternatives to the current one: Factor analysis-derived weights at the indicator level; equal weighting at the indicator level; equal weighting at the subcategory level (and relative weights within each subcategory as in the EPI); equal weighting at the policy level (and relative weights within each policy category and subcategory as in the EPI). Finally, a binary trigger determines the aggregation function (at the policy level) to be an arithmetic or a geometric average. In the latter case, the use of a geometric aggregation would penalize countries that compensate very low performance in some policy categories with very high performance in other policy categories. Given that environmental excellence is understood to mean strong performance on the different EPI categories simultaneously, compensation at the policy level should be penalized. We undertook a saturated sampling of the space of input factors.

The combinations of the input factors are translated into a set of N=40,000 simulations in a Monte Carlo framework. The composite index is then evaluated N times, and the EPI scores and ranks obtained are associated with the corresponding draws of input factors to appraise their influence. When several layers of uncertainty are simultaneously activated, composite indicators turn out to be non-linear, possibly non-additive models, due to interactions between the input factors (Saisana *et al.* 2005). As a result, all EPI scores and ranks are non-linear functions of the input factors and the purpose of the uncertainty analysis is the estimation of their probability distribution functions.

As argued by practitioners (Saltelli *et al.* 2000b; EPA 2004), robust, "model-free" techniques for sensitivity analysis should be used for non-linear models. Variance-based techniques have been shown to yield useful results for sensitivity analysis. For more information the reader is referred elsewhere (e.g., Saltelli *et al.* 2008).

1. How do the EPI ranks compare to the ranks under all scenarios?

The uncertainty analysis results from the Monte Carlo simulations for the 149 countries are given in detail in Table 2. They reveal whether any deliberate bias against some countries is introduced by making certain methodological choices in building the EPI and respond to arguments made by Andrews *et al.* (2004: 1323) that many indices "rarely have adequate scientific foundations to support precise rankings: […] typical practice is to acknowledge uncertainty in the text of the report and then to present a table with unambiguous rankings." The countries shown in Table 2 are ordered by their original EPI score. The numbers in Table 2 represent the probability of a country being among the top 10, top 10-20, and so on. Just to give an example, New Zealand has a 98% probability to be among the top 10 performing countries. Costa Rica and Finland follow, with a probability of 81% to be ranked among the top 10. Interestingly, Switzerland, which scores top in the original EPI, is almost as likely to be among the top 10, top10-20 or top 20-30 countries. These probabilities indicate the uncertainty about the countries scores in the EPI. In fact, approximately half of the countries in the EPI are placed correctly in the environmental performance ladder, whilst the other half of the countries can fluctuate significantly between various positions, and any conclusion on the performance of these countries should be drawn with great caution. The results presented in Table 2 depend on the theoretical framework and the indicators, but are independent of the methodology (methodology-free results), given that they represent a whole set of alternative scenarios. The dominant source for the observed deviations arises from the choice of the weights and its combined effect with the choice of the aggregation function at the policy level. As Table 2 demonstrates, countries with high or low performance in the EPI do not have wide variations in their ranks under alternative scenarios. The exceptions to this rule are Austria, Canada, and Iceland. In our simulations Austria ranked between the top 10 to the top 40-50. Another interesting example is Iceland (rank: 11) whose score can be anywhere within the top10-20 to top 80-90. Canada, on the other hand (rank: 12) has a 58% probability to be ranked in the top10 and 33% to be ranked among the top10-20. This result suggests that in fact Canada outperforms Iceland on the environmental issues measured in the EPI given the current framework.

Table 2. Probabilities of country ranks in the Environmental Performance Index under all tested combinations of input factors (probabilities less than 5% are not shown)

	Rank 1-10	Rank 11-20	Rank 21-30	Rank 31-40	Rank 41-50	Rank 51-60	Rank 61-70	Rank 71-80	Rank 81-90	Rank 91-100	Rank 101-110	Rank 111-120	Rank 121-130	Rank 131-140	Rank 141-149
Switzerland	31	30	20	11	6										
Sweden	63	25	10												
Norway	55	31	6												
Finland	81	16													
Costa Rica	81	16													
Austria	15	19	16	21	18										
New Zealand	98														
Latvia	25	39	26	6											
Colombia	74	18	5												
France	15	26	30	14	13										
Iceland		11	15	5	14	15	9	10	13						
Canada	58	33	9												
Germany		14	40	21	20										
United Kingdo	11	44	29	11											
Slovenia		9	18	25	23	8	10								
Lithuania		16	20	14	9	8	9	6	9						
Slovakia		15	21		14	25	5	6	8						
Portugal	20	46	16	11	5										
Estonia	56	34													
Croatia		16	19	23	10	6	9	5	5	5					
Japan	6	38	35	14	5										
Ecuador	63	26		5											
Hungary				6		6	13	16	20		6	10	9		
Italy		6	28	24	16	13	5								
Denmark			8		9	6	15	13	14	8	6	11			
Malaysia	31	48	15	5											
Albania			9	11	6	13	10	16		5	6		9	5	
Russia	9	33	43	9											
Chile	16	46	25	8											
Spain		5	30	18	19	14	11								
Luxembourg		9		15	16	20	26	5	5						
Panama	73	20													
Dominican Re	18	54	21	6											
Ireland			5	16	13	15	13	13			9	5			
Brazil	5	20	29	24	11										
Uruguay				11	15	9	8	9	10		9			14	
Georgia				8	8	19	15	16	10	13	5				
Argentina			10	23	28	24	11								
United States	5	23	19	24	13	8									
Taiwan				20	13	19	16	10	13						
Cuba		5	24	29	19	13	5								
Poland		5	11	20	35	15									
Belarus					11	10	10	18	16	16	13				
Greece				8	18	14	19	15		5	10	6			
Venezuela	5	11	36	25	18	5									
Australia	30	30	14	10	9										
Mexico		11	15	34	28		6								
Bosnia & Her					5		10	11	24	9	6	8		14	6
Israel				5	31	19	19	13	5	6					
Sri Lanka	19	36	16	16	10										
South Korea					6		14	14	19	9	8	13	8		
Cyprus				10	9	25	14	28	6						
Thailand		8	30	35	11	11									
Jamaica				8	15	24	11	11	9	10	5				
Netherlands						9	11	14	10	21	9	11	9		
Bulgaria				5	19	25	15	8	10	6					
Belgium						13	6	11	6	6	16	10	13	9	
Mauritius					6	9	19	18	8	16	15				
Tunisia						5	10	10	10	14	19	18	9		
Peru			15	30	18	30									
Philippines		6	13	26	21	16	9		5						
Armenia							6	13	19	8	16	18	8	6	
Paraguay					11	18	20	18	9	8	5	6			
Gabon		6	35	28	16	5	6								
El Salvador			5	6		13	16	9	10	9	8	9	8	5	
Algeria			5	5	15	26	24	11	6	5					
Iran			11	23	26	18	16								
Czech Rep.						9	8	15	11	13	19	15	10		
Guatemala		10	16	23	26	14	8								
Jordan						8	14	24	20	6	14	8			
Egypt			19	21	24	13	10	6							
Turkey							18	15	18	16	9	6	6		
Honduras		9	28	20	15	13	8	5	[illegible]	[illegible]	[illegible]	[illegible]			
Macedonia						5	5	15	10	18	21	13	6	5	
Ukraine							8	15	6	23	11	10	13	10	

	Rank 1-10	Rank 11-20	Rank 21-30	Rank 31-40	Rank 41-50	Rank 51-60	Rank 61-70	Rank 71-80	Rank 81-90	Rank 91-100	Rank 101-110	Rank 111-120	Rank 121-130	Rank 131-140	Rank 141-149
Viet Nam				5	10	18	29	20	8						
Nicaragua			8	21	28	14	10	14							
Saudi Arabia						11	13	23	16	10	11				
Tajikistan							9	6	14	19	18	19	11		
Azerbaijan									10	23	9	24	26	5	
Nepal					5	9	8	15	28	14	13	6			
Morocco								14	20	15	13	15	16		
Romania						14	10	33	16	11		5			
Belize			9	29	16	13		14	6						
Turkmenistan					5	6	14	8	19	25	11	9			
Ghana		11	14	16	10	10	13	9	8	5					
Moldova										8		10	13	30	31
Namibia							16	16	25	18	16				
Trinidad & To				6	20	11	23	8	13	8		5			
Lebanon						5	15	13	13	5	5	6	20	8	11
Oman						10	25	18	24	5	10				
Fiji									6	15	13	19	14	20	5
Congo				9		23	18	13	13	13	9				
Kyrgyzstan						5	6	15	13	30	15	9			
Zimbabwe					21	11	15	10	15	13	6				
Kenya		18	15	11	11	11	11	6	8	6					
South Africa					14	16	20	11	16	11					
Botswana						5			13	18	18	19	16	6	
Syria										16	11	21	13	30	6
Mongolia				5		13	9	25	18	15	10				
Laos				10	8	9	10	6	10	9	19	11			
Indonesia				9	10	11	23	19	14	5	6				
Côte d'Ivoire			10	13	15	20	8	11		9	6				
Myanmar							6	5	16	24	26	15	5		
China							9	13	9	25	19	13	5		
Uzbekistan											14	16	29	29	11
Kazakhstan										5	15	16	36	24	
Guyana						6	10	19	15	20	20	5			
Papua New G						6	10	14	9	11	20	20	8		
Bolivia							8	10	23	13	20	11			
Kuwait											9	5	15	28	41
United Arab E										10	9	36	19	11	11
Tanzania				11	13	16	9	11	11	8	6	6			
Cameroon						6	10	6	13	23	23	15			
Senegal						5	6	9	16	30	24	6			
Togo							8	6	18	18	18	18	10		
Uganda						8	5	5	6	11	20	21	11	10	
Swaziland									6		16	31	24	15	
Haiti											10	21	23	30	10
India										11	15	31	25	13	
Malawi					9	13	13	14		11	15	9	6	8	
Eritrea								6	13	16	16	25	18		
Ethiopia								6	8	9	8	9	25	26	5
Pakistan									23	9	26	18	18		
Bangladesh												9	18	24	48
Nigeria								6	5	13	15	24	23	6	5
Benin						10	11	10	14	13	9	11	13		
Central Afr. R											13	14	16	38	13
Sudan												10	34	46	6
Zambia									10	10	14	9	21	21	11
Rwanda					6		11	18	11	18	5	13	6	9	
Burundi								9	8	15	9	18	29	11	
Madagascar									8	13	16	20	21	15	
Mozambique							6	6	9	11	14	18	21	9	
Iraq													11	26	60
Cambodia										8	15	11	31	28	
Solomon Islar														16	81
Guinea											13	14	23	36	6
Djibouti												8	18	35	39
Guinea-Bissa										15	14	28	19	15	5
Yemen													6	29	63
Dem. Rep. Co												13	29	26	23
Chad												8	16	33	40
Burkina Faso											9	6	18	43	25
Mali												5	18	36	41
Mauritania												9	25	40	24
Sierra Leone													11	18	70
Angola														19	79
Niger													6	19	73

2. Which countries have the most volatile ranks and why?

We use the term "volatility" as a measure of the difference between a country's best and worst rank, calculated from the 5th and the 95th percentiles of the rank distribution simulations. For Finland, Costa Rica, New Zealand, Colombia and Panama, we can reasonably state that they have a top 10 performance (probability greater than 70%) and very low volatility in their scores. Interestingly, Panama is ranked 32nd in the EPI – a rank that occurs less than 5% of the times in our simulations. Table 3 presents the 20 countries that are affected most strongly by the methodological choices made during the construction of the EPI. These countries, with a difference in their best and worst rank (5th and 95th percentiles) of at least 80 positions, are ranked between 11th (Iceland) and 131st (Rwanda). A number of those countries such as Lithuania, Hungary, Denmark, Albania, Ireland, Uruguay, and Bosnia & Herzegovina are ranked among the top 50 in the EPI. The volatility of those countries' ranks can be attributed mainly to the choice of the weighting combined with the aggregation scheme at the policy level.

Table 3. Most volatile countries in the EPI

Country	EPI Rank	Range of Simulation Ranks	Country	EPI Rank	Range of Simulation Ranks
Iceland	11	[14,95]	El Salvador	65	[31,129]
Lithuania	16	[16,98]	Ghana	86	[12,93]
Hungary	23	[33,129]	Lebanon	89	[62,143]
Denmark	25	[25,131]	Kenya	96	[13,98]
Albania	27	[25,132]	Laos	101	[29,116]
Ireland	34	[24,114]	Côte d'Ivoire	103	[21,103]
Uruguay	36	[31,139]	Tanzania	113	[23,113]
Bosnia & Herzegovina	48	[48,141]	Uganda	117	[55,134]
South Korea	51	[42,125]	Malawi	121	[48,132]
Belgium	57	[42,137]	Benin	127	[51,130]
			Rwanda	131	[45,131]

3. What are the sources of major impact on the variability of the EPI ranking?

We now focus on assessing the impact of each of the five assumptions individually, which amounts to a total of eight different scenarios. We undertake the following comparisons:

Measurement error
- current case without measurement error in the data vs. measurement error in the data;

Winsorisation
- current winsorisation approach vs. no winorisation;

Target values
- current target values v. no target values;

Weighting
- current weighting vs. FA-derived weights at the indicator level;
- current weighting vs. equal weighting at the indicator level;
- current weighting vs. equal weighting at the subcategory level;

• current weighting vs. equal weighting at the policy level;

Aggregation

• current arithmetic aggregation vs. geometric aggregation at the policy level.

Measurement error

It is reasonable to assume that the raw data are not flawless and that despite efforts to guarantee the most reliable sources for them, errors may still be present. To account for this, we have added a normally distributed random error term to the raw data with a mean zero and a standard deviation equal to the observed one for each indicator. Table 4 presents the countries that are mostly affected by this assumption. Most notably, Luxembourg (rank: 31) would deteriorate its rank by 53 positions. On the other extreme, the Philippines (rank: 61) would improve its rank and be placed in the 10th position. Overall, the introduction of measurement error in the raw data has a median impact of 9 ranks and a 90th percentile impact of 29 positions. In other words, this assumptions leaves 1 out of 2 countries almost unaffected (less than 9 positions change), but 1 out of 10 countries would shift more than 29 positions.

Table 4: Countries most affected by measurement error compared to the original EPI.

	EPI rank	Rank	Difference	Top five countries
Colombia	9	42	-33	Costa Rica
Iceland	11	47	-36	Dominican Rep.
Estonia	19	60	-41	Norway
Luxembourg	31	84	-53	Finland
Dominican Rep.	33	2	31	Canada
Cuba	41	74	-33	
Poland	42	83	-41	**Bottom five countries**
South Korea	51	18	33	Cambodia
Peru	60	27	33	Mauritania
Philippines	61	10	51	Angola
Iran	67	32	35	Burkina Faso
Honduras	73	38	35	Sierra Leone
Nepal	81	115	-34	
Fiji	94	54	40	Median change: 9 ranks
South Africa	97	57	40	90th percentile change: 29 ranks

Winsorization

Winsorization is also expected to have an impact on the rankings, particularly for those countries that present a few extreme values. Table 5 presents the countries that are mostly affected by the choice of not winsorizing, as opposed to the current one. In the best case, South Africa (rank: 97) improves its position by 16, whilst in the worst case, Botswana (rank: 98) declines by 21 ranks. For 1 out of 2 countries, the impact of this assumption is only 5 positions, while 1 out of 10 countries shift by more than 11 positions, but not more than 21.

Table 5: Countries most affected by not winsorizing skewed distributions compared to the original EPI.

	EPI rank	Rank	Difference	Top five countries
Hungary	23	39	-16	Sweden
Luxembourg	31	48	-17	Norway
Georgia	37	50	-13	Switzerland
Belarus	43	56	-13	New Zealand
Bosnia & Herzegovina	48	61	-13	Costa Rica
Tajikistan	79	95	-16	
Azerbaijan	80	96	-16	**Bottom five countries**
Lebanon	89	75	14	Mali
Fiji	94	107	-13	Chad
South Africa	97	81	16	Sierra Leone
Botswana	98	119	-21	Niger
Indonesia	102	87	15	Angola
Côte d'Ivoire	103	91	12	
Uzbekistan	106	125	-19	Median change: 5 ranks
Tanzania	113	99	14	90^{th} percentile change: 11 ranks

Targets

Allowing for "extra credit" when exceeding the indicator targets is also expected to have an impact on the results. Table 6 presents the countries that are mostly affected by this assumption. Luxembourg (rank: 31) and Laos (rank: 101) would see the greatest shift in their ranks (a decline of 12 and 15 positions respectively). In the best case, El Salvador (rank: 65) will improve by 9 positions. Overall, for 1 out of 2 countries, the impact of this assumption is only 3 positions, while 1 out of 10 countries shift by more than 7 positions, but not more than 15. The two assumptions on the use of target values and on the winsorization are thus by far the least influential methodological decision in the EPI, a result that we will confirm below.

Table 6: Countries most affected by not capping the indicators at the performance target compared to the original EPI.

	EPI rank	Rank	Difference	Top five countries
Slovakia	17	28	-11	Norway
Hungary	23	33	-10	Sweden
Luxembourg	31	43	-12	Switzerland
Bosnia & Herzegovina	48	57	-9	Costa Rica
Sri Lanka	50	40	10	New Zealand
Jamaica	53	61	-8	
Philippines	61	53	8	**Bottom five countries**
El Salvador	65	56	9	Mali
Saudi Arabia	78	86	-8	Burkina Faso
Azerbaijan	80	89	-9	Sierra Leone
Trinidad & Tobago	91	83	8	Angola
Lebanon	89	81	8	Niger
Laos	101	116	-15	
Cameroon	114	105	9	Median change: 3 ranks
Central Afr. Rep.	128	136	-8	90^{th} percentile change: 7 ranks

Alternative weighting schemes

Four alterative weighting schemes, all with their implications and advantages, are deemed as the most representative in the literature of composite indicators and worth being tested in our current analysis.

- current weighting vs. FA-derived weights at the indicator level;
- current weighting vs. equal weighting at the indicator level;
- current weighting vs. equal weighting at the subcategory level;
- current weighting vs. equal weighting at the policy level;

Using FA-derived weights at the indicator level significantly affects the country rankings. Half of the countries shift fewer than 16 positions but 15 countries shift more than 47 positions. Table 7 shows the countries that experience the biggest shift in their rank due to this assumption.

Table 7: Countries most affected by the FA weights compared to the original EPI.

	EPI rank	Rank	Difference	Top five countries
Lithuania	16	63	-47	Switzerland
Hungary	23	75	-52	Finland
Denmark	25	79	-54	New Zealand
Albania	27	93	-66	Estonia
Georgia	37	87	-50	Austria
Bosnia & Herzegovina	48	99	-51	
South Korea	51	105	-54	**Bottom five countries**
Egypt	71	23	48	Angola
Saudi Arabia	78	17	61	Yemen
Belize	84	21	63	Bangladesh
Moldova	87	134	-47	Solomon Islands
Trinidad & Tobago	91	40	51	Sierra Leone
Zimbabwe	95	48	47	
Kenya	96	45	51	Median change: 16 ranks
Mongolia	100	33	67	90th percentile change: 47 ranks

Equal weighting at the indicator level would increase the weight of the indicators in the Air Pollution (effects on nature) subcategory, the Water (effects on nature) category, the Biodiversity and Habitat category, and the Productive Natural Resources category. A total of seventeen indicators will increase their weight, as opposed to the current weighting scheme. The remaining eight indicators will reduce their weight, in particular, the DALY indicator and the three indicators related to Climate Change. The countries whose EPI ranks are most affected by this change are shown in Table 8. The countries that improve their ranks the most are Laos, Kenya, Mongolia and Malawi (by more than 60 positions upwards). On the other hand, Denmark and South Korea decline more than 70 positions. Overall, for 1 out of 2 countries, the impact of this assumption is 15 positions, while 1 out of 10 countries shift by more than 48 positions (up to 72 positions).

Table 8: Countries most affected by using equal weights at the indicator level compared to the original EPI.

	EPI rank	Rank	Difference	Top five countries
Hungary	23	80	-57	Switzerland
Denmark	25	97	-72	Finland
South Korea	51	122	-71	New Zealand
Belgium	57	115	-58	Estonia
Tunisia	59	117	-58	Colombia
Ukraine	75	124	-49	
Belize	84	35	49	**Bottom five countries**
Moldova	87	139	-52	Yemen
Congo	92	39	53	Angola
Kenya	96	29	67	Iraq
Mongolia	100	33	67	Bangladesh

Laos	101	17	84	Solomon Islands
Côte d'Ivoire	103	49	54	
Malawi	121	55	66	Median change: 15 ranks
Rwanda	131	77	54	90th percentile change: 48 ranks

We next tested the impact of an equal weighting at the subcategory level, whilst the relative weights for the indicators within each subcategory remain as in the EPI. This is expected to have a less pronounced impact on the EPI ranks because this assumption assigns greater weight to the six of the ten subcategories and reduces the weight of the other four and in particular the weight of the climate change and of the environmental burden of disease (DALY). As a consequence, the countries whose EPI ranks are most affected by this change are given in Table 9. The countries that improve their ranks the most are Trinidad & Tobago and Laos (improvement of more than 38 positions). On the other hand, Denmark and Taiwan decline more than 50 positions. Overall, for 1 out of 2 countries, the impact of this assumption is 9 positions, while 1 out of 10 countries shift by more than 26 positions (up to 51 positions).

Table 9: Countries most affected by equal weighting at the subcategory level compared to the original EPI.

	EPI rank	Rank	Difference	Top five countries
Denmark	25	76	-51	Switzerland
Argentina	38	65	-27	Finland
Taiwan	40	90	-50	New Zealand
Australia	46	18	28	Sweden
South Korea	51	100	-49	Colombia
Netherlands	54	86	-32	
Belgium	57	101	-44	**Bottom five countries**
Mauritius	58	29	29	Dem. Rep. Congo
Tunisia	59	92	-33	Niger
Gabon	64	37	27	Bangladesh
Belize	84	49	35	Angola
Trinidad & Tobago	91	50	41	Mauritania
Fiji	94	66	28	
Mongolia	100	72	28	Median change: 9 ranks
Laos	101	63	38	90th percentile change: 26 ranks

We conclude the assessment of the impact of different weighting methods by evaluating the impact of equal weighting at the policy level. The relative weights within the policy categories and within the subcategories remain the same as in the EPI. A weight of 1/6 is thus assigned to each policy category, thus reducing significantly the previously assigned weight of .50 to the environmental health and the weight of 0.25 assigned original to climate change. All policy categories now have a weight of 1/6 = .167. The countries whose EPI ranks are most affected by this change are given in Table 10. The countries with the most notable improvement in their ranks are Laos and Kenya (improvement of more than 78 positions). On the other hand, Belgium and South Korea decline more than 75 positions. Overall, for 1 out of 2 countries, the impact of this assumption is 18 positions, while 1 out of 10 countries shift by more than 486 positions (up to 91 positions).

Table 10: Countries most affected by equal weighting at the policy category level compared to the original EPI.

	EPI rank	Rank	Difference	Top five countries
Denmark	25	77	-52	Switzerland
United States	39	87	-48	Finland
Taiwan	40	101	-61	Sweden
South Korea	51	126	-75	Norway
Netherlands	54	122	-68	New Zealand
Belgium	57	138	-81	
Tunisia	59	111	-52	**Bottom five countries**
Armenia	62	110	-48	Solomon Islands
Ukraine	75	123	-48	Djibouti
Belize	84	30	54	Yemen
Lebanon	89	137	-48	Iraq
Congo	92	23	69	Kuwait
Kenya	96	18	78	
Mongolia	100	35	65	Median change: 18 ranks
Laos	101	10	91	90^{th} percentile change: 48 ranks

Aggregation scheme at the policy level

We assume that compensability is allowed among the indicators within each policy category but not desirable across the policy categories, consistently with the current theories that environmental aspects should be non compensatory. Table 11 presents those countries for which the most notable shift in the country rank occurs when a non-compensatory aggregation is performed at the policy level, i.e., a geometric mean function instead of an arithmetic mean function. Sri Lanka, Peru and Egypt improve their ranks by 18 positions or more, whilst the most decline is observed for Uruguay (down more than 51 positions). Overall, for 1 out of 2 countries, the impact of this assumption is merely 5 positions, while 1 out of 10 countries shift by more than 18 positions (up to 51 positions).

Table 11: Countries most affected by geometric aggregation at the policy level compared to the original EPI.

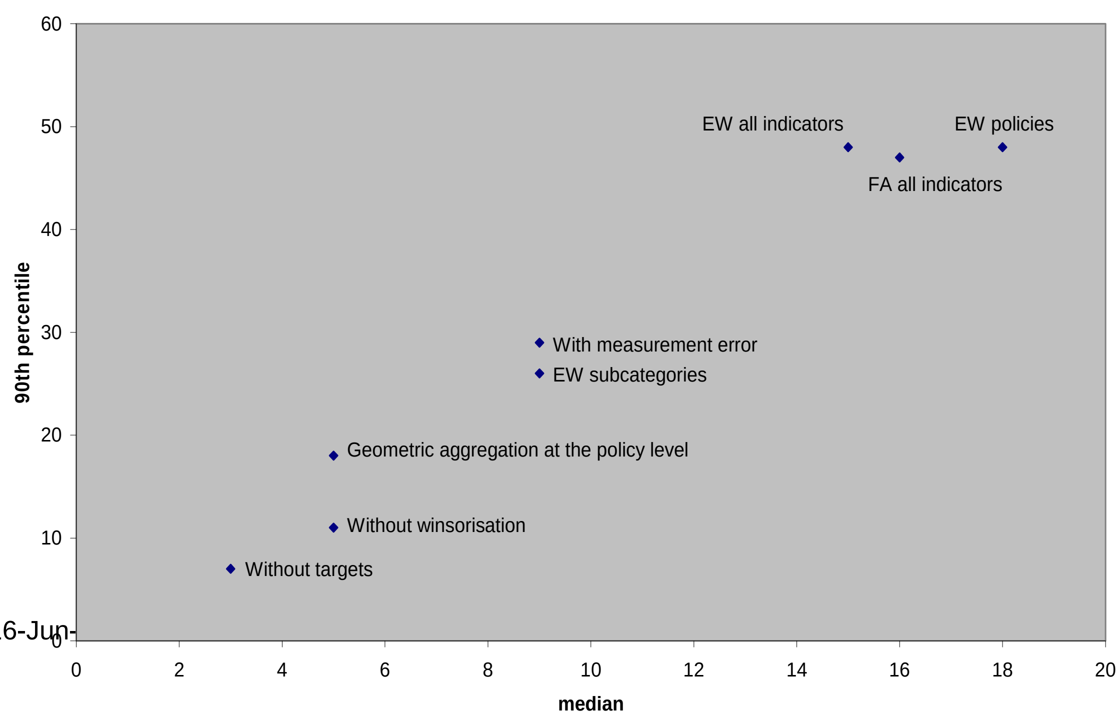
	EPI rank	Rank	Difference	Top five countries
Hungary	23	45	-22	Switzerland
Albania	27	62	-35	Norway
Ireland	34	58	-24	Sweden
Uruguay	36	87	-51	Finland

Greece	44	66	-22	Costa Rica
Bosnia & Herzegovina	48	94	-46	
Sri Lanka	50	31	19	**Bottom five countries**
Peru	60	42	18	Dem. Rep. Congo
El Salvador	65	83	-18	Mali
Egypt	71	51	20	Sierra Leone
Turkey	72	91	-19	Angola
Ukraine	75	96	-21	Niger
Moldova	87	113	-26	
Lebanon	89	119	-30	Median change: 5 ranks
Kazakhstan	107	126	-19	90^{th} percentile change: 18 ranks

As expected and confirmed in all cases discussed above, middle-of-the-road performers display higher variability than the top and bottom countries.

Summing up, when only one input factor is changed at a time, the most significant impact to the EPI ranking is attributable to the weighting method, in particular when choosing equal weights at the policy level (and original weights within each policy) compared to the original EPI, equally weighting all indicators, or using factor analysis derived weights at the indicators level. In any of these three cases, 1 out of 2 countries shifts less than 15 positions with respect to the original EPI ranking, whilst 1 out of 10 countries shifts more than 50 positions. The addition of measurement error and the impact of an equal weighting at the subcategories also have significant impact on the EPI ranking (1 out of 2 countries shifts less than 9 positions, but 1 out of 10 countries shift close to 30 positions or more). The least influential input factor is the decision on whether to cap performance at the indicator targets and winsorisation. In fact, 1 out of 2 countries shift less than five positions in the overall ranking and 1 out of 10 countries shift more than 10 positions, but not more than 21 positions.

Figure 2. Sensitivity analysis: impact of one-at-a-time changes in the five tested assumptions on the EPI ranking.



Note: median versus 90^{th} percentile of the absolute differences in the rank score between a given scenario and the EPI.

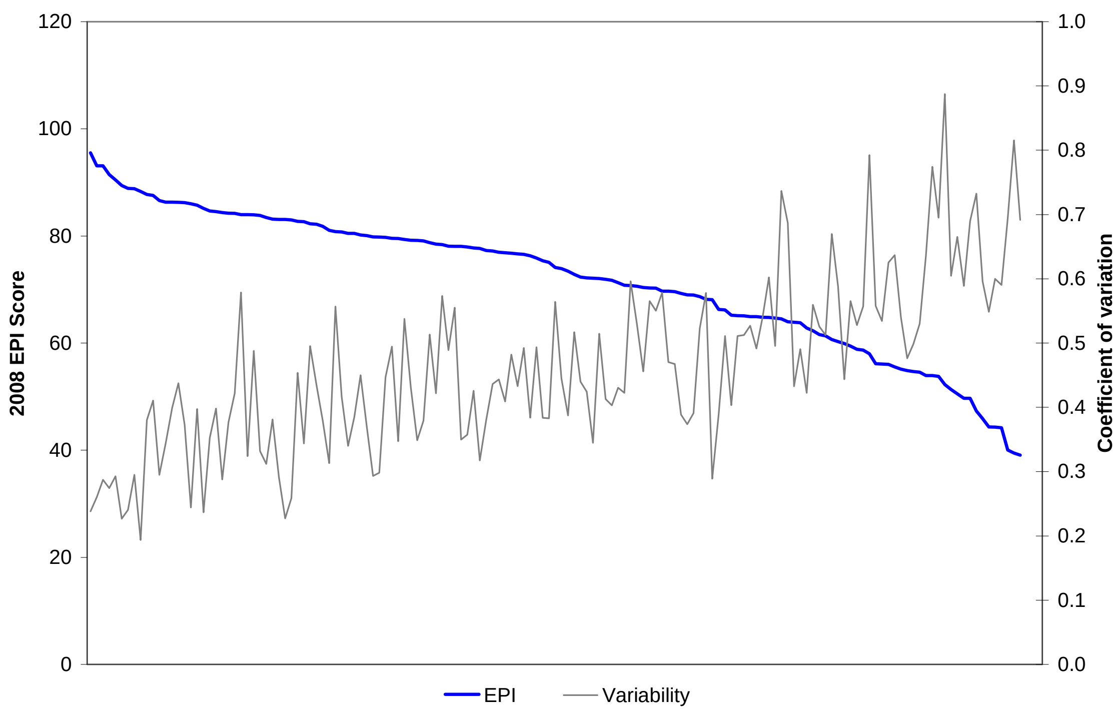
EW stands for equal weighting.

When all sources of uncertainty are allowed to vary simultaneously their combined effect becomes even more important. The use of geometric aggregation combined with equal weighting at the policy level, with or without targets, without winsorization, and without measurement error affects half of the countries by more than 39 positions, of which 1 out of 10 is affected by a median shift of 69 positions. The main graph which we propose as representative of the environmental performance of the countries world-wide, given the current framework, but free of methodological choices (since these choices have already been summarized by the different scenarios) shows the probabilities that a country is ranked in the 1-10 position, or 11-20, etc. (Table 2).

EPI and Variability

Countries that are situated in the top or mid-way in the EPI ranking tend to score uniformly high on the various indicators. In other words, these countries display a relatively low variability, which equals the coefficient of variation across the 25 indicators values for a given country. Figure 3 shows that the variability increases further down the EPI ranking. This scissors pattern is evident, and pronounced. The correlation coefficient between the EPI and the coefficient of variation series is equal to $r = -0.78$, indicating *a fairly high degree of reverse association between the EPI scores and the variability in the underlying indicators*. For comparison purposes, in the case of the Trade and Development Index (UNCTAD, 2005) that is based on eleven components and developed for 110 countries, the correlation coefficient between the index scores and the coefficients of variation series was much higher and equal to $r = -0.93$.

Figure 3. The scissor diagram of EPI and variability



An implication of this finding is that while changes in the EPI scores over time could be regarded as a quantitative indication of trends in environmental performance, those with respect to the variability of the ranks could be seen as qualitative changes. Reducing even further the variability in the indicators should be among the objectives of environmental policies and strategies. To be successful, a country must put simultaneously invest in multiple goals within a coherent environmental performance strategy, while emphasizing reduction of the existing gaps in areas where performance is lagging. By demonstrating significant inter-country differences in the values of the coefficient of variation, the scissors diagram (Figure 3) points to the importance of country-specific approaches to environmental strategies. At the same time, though, it is unlikely that these variations will be reduced without coherent environmental policies and decision-making.

Concluding remarks

The methodological approach used to construct the 2008 EPI was studied in this section. The "statistical" filters of index quality show that, although the theoretical framework and the indicators were carefully chosen by experts, the issue of weighting is crucial to obtain a robust performance index. The current weighting scheme results in an EPI that is dominated by very few indicators while having an almost random association with several other underlying indicators. With respect to the five input factors tested in the sensitivity and uncertainty analysis, the country rankings are relatively reliable for approximately half of the countries, while any conclusion on the ranking for the other half of the countries should be made with great caution. An equal weighting approach at the indicator level, or at the policy level, as opposed to the current weighting scheme greatly influences the ranks. Thus, the choice of the weights must be evaluated according to its analytical rationale, policy relevance, and implied value judgments. The real value of the EPI lies not in the overall ranking of the countries, but rather in the solid framework and construction of the indicators. It is from this perspective that further revision of the index should be considered if the goal is to arrive at a single number that provides meaningful input to policymaking.

APPENDIX E: INDICATOR METADATA

Information on indicator methodology can also be found at: http://epi.yale.edu/IndicatorsMethodology

Indicator 1: Environmental Burden of Disease

Indicator 2: Adequate Sanitation

Indicator 3: Drinking Water

Indicator 4: Urban Particulates

Indicator 5: Indoor Air Pollution

Indicator 6: Local Ozone

Indicator 7: Regional Ozone

Indicator 8: Sulfur Dioxide (SO2) Emissions

Indicator 9: Water Quality Index

Indicator 10: Water Stress

Indicator 11: Conservation Risk Index

Indicator 12: Effective Conservation

Indicator 13: Critical Habitat Protection

Indicator 14: Marine Protected Areas

Indicator 15: Change in Growing Stock

Indicator 16: Marine Trophic Index

Indicator 17: Trawling Intensity

Indicator 18: Irrigation Stress

Indicator 19: Agricultural Subsidies

Indicator 20: Intensive Cropland

Indicator 21: Pesticide Regulation

Indicator 22: Burned Area

Indicator 23: Emissions Per Capita

Indicator 24: CO2 from Electricity Production

Indicator 25: Industrial Carbon Intensity

Indicator Code:	**DALY**
Indicator Short Name:	**Environmental Burden of Disease**
Indicator Full Name:	Disability Adjusted Life Years (DALY) Due to the Environmental Burden of Disease
Objective:	Environmental Health
Policy Category:	Environmental Health
Subcategory:	Environmental Burden of Disease

Indicator Description: The Disability Adjusted Life Year or DALY is a health gap measure that extends the concept of potential years of life lost due to premature death (PYLL) to include equivalent years of 'healthy' life lost by virtue of being in states of poor health or disability (Murray et al. 2002). The DALY combines in one measure the time lived with disability and the time lost due to premature mortality. One DALY can be thought of as one lost year of 'healthy' life and the burden of disease as a measurement of the gap between current health status and an ideal situation where everyone lives into old age free of disease and disability (WHO 2007).

The WHO also captures environmental impact on human health through the DALY. These DALYs adjust the nominal deaths due to given, environmentally related diseases to take into account the years of life lost due to premature mortality and the loss in quality of life due to disability (morbidity). They are the sum of the number of life years lost due to premature mortality on account of an environmentally influenced disease and the years of life due to disability caused by that disease.

Units: Years of life lost per 1,000 population

Country Coverage: 192
Reference Year: 2002

Target: 0
Target Source: Expert judgment

Short Source: WHO 2007
Source: WHO (World Health Organization). 2007, Country Profiles of Environmental Burden of Disease. This report draws on WHO/UNICEF (2006). Taiwan: Department of Environmental Monitoring and Information Management, EPA.
Source URL: http://www.who.int/quantifying_ehimpacts/countryprofiles/en/index.html

Methodology: The complete methodology for calculating DALYs is described in the source publication. The DALY indicator used by the 2008 EPI is an aggregate of DALY data that has been collected by the WHO. In order to represent Environmental Health across a broad spectrum of risks, the 2008 EPI does not limit its inquiry to one source of risk. Instead, the DALY indicator is an un-weighted aggregate sum of DALY data from three sources of environmental health risk: diarrhea (due to inadequate sanitation and unclean drinking water), indoor air (combustion of solid fuels for household use), and outdoor air (concentration of particulate matter in urban areas). Twenty three countries had missing diarrhea data; these were mostly wealthy countries for which it made sense to assume relatively low levels of diarrhea. We analyzed the relationship between per-capita income and diarrhea, and imputed missing values according to the following table:

Per-capita income†	Imputed Diarrhea DALY
>$20,0000.	0.1
$10,000-$20,000	0.5
$5,000-$10,000	1.0
$1,900-$5,000	4.0

We did not impute for countries with per-capita income less than $1900. The imputed values reflect the average observed values within the income range, although for the $5,000-10,000 group we excluded Equatorial Guinea when computing the average because it was anomalously high.

†US Dollars, 2000 USD, PPP

Additional Citations:

Murray CJL, Salomon JA, Mathers CD, Lopez AD (eds.) (2002). Summary measures of population health: concepts, ethics, measurement and applications. WHO, Geneva. Available at http://www.who.int/pub/smph/en/index.html

Murray CJL, Lopez AD (1996). The Global Burden of Disease. Cambridge: Harvard University Press.

WHO/UNICEF. 2006. Meeting the MDG Drinking Water and Sanitation. The Urban and Rural Challenge of the Decade. Geneva: World Health Organization and United Nations Children's Fund.

Indicator Code: **ACSAT**
Indicator Short Name: **Adequate Sanitation**
Indicator Full Name: Percentage of Population with Access to Improved Sanitation

Objective: Environmental Health
Policy Category: Environmental Health
Subcategory: Water (Effects on Humans)

Indicator Description: Adequate Sanitation measures the percentage of a country's population that has access to an improved source of sanitation.

Units: Percentage

Country Coverage: 214
Reference Year: 2004 or MRYA

Target: 100% coverage
Target Source: MDG 7, Target 10, Indicator 31

Short Source: WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2006
Source: World Development Indicators, http://devdata.worldbank.org/dataonline/old-default.htm
World Health Organization and United Nations Children's Fund. Water Supply and Sanitation Collaborative Council. Global Water Supply and Sanitation Assessment, 2000 Report, Geneva and New York. Last updated data in November 2006, available at http://www.childinfo.org/areas/sanitation/countrydata.php
Other sources: Millennium Development Goals Indicators, Millennium Indicators
Taiwan: Department of Environmental Monitoring and Information Management, EPA.
Source URL: http://go.worldbank.org/6HAYAHG8H0
http://www.childinfo.org/areas/sanitation/countrydata.php

Methodology: Improved sanitation technologies are: connection to a public sewer, connection to septic system, pour-flush latrine, simple pit latrine, ventilated improved pit latrine. The excreta disposal system is considered adequate if it is private or shared (but not public) and if hygienically separates human excreta from human contact. "Not improved" are: service or bucket latrines (where excreta are manually removed), public latrines, latrines with an open pit. The total population of a country may comprise either all usual residents of the country (de jure population) or all persons present in the country (de facto population) at the time of the census. For purposes of international comparisons, the de facto definition is recommended. (Source: United Nations. Multilingual Demographic Dictionary, English Section. Department of Economic and Social Affairs, Population Studies, No. 29, United Nations publication, Sales No. E.58.XIII.4).

Values for Iran and Oman are 2000 values. Belgium, Denmark, France, Greece, Ireland, Italy, Luxembourg, New Zealand, Portugal, Korea, Great Britain, Aruba, Bahrain, Bermuda, Brunei Darussalam, Cayman Islands, Falkland Islands, Faeroe Islands, Gibraltar, Greenland, Hong Kong Special Administrative Region of China, Israel, Kuwait, Liechtenstein, Macao Special Administrative Region of China, Malta, Puerto Rico, San Marino, Slovenia and Holy See were also set to 100 on the basis that their per capita incomes exceeded US$15,971, which is the empirical threshold beyond which all countries have 100% coverage. Lithuania, Macedonia and Poland were imputed based on the regression model predicting ACSAT using log of per-capita income, and Saudi Arabia were imputed using a model that included WATSUP and log per capita income.

Additional Citation: not available

Indicator Code:	**WATSUP**
Indicator Short Name:	**Drinking Water**
Indicator Full Name:	Percentage of Population with Access to Improved Drinking Water Source
Objective:	Environmental Health
Policy Category:	Environmental Health
Subcategory:	Water (Effects on Humans)

Indicator Description:	The WHO defines an improved drinking water source as piped water into dwelling, plot or yard; public tap/standpipe; tubewell/borehole; protected dug well; protected spring; and rainwater collection.
Units:	Percentage
Country Coverage:	204
Reference Year:	2004
Target:	100%
Target Source:	MDG 7, Target 10, Indicator 31
Short Source:	WDI and MDG, 2007
Source:	World Development indicators, http://devdata.worldbank.org/dataonline/old-default.htm
Other sources:	World Health Organization and United Nations Children's Fund. Water Supply and Sanitation Collaborative Council. Global Water Supply and Sanitation Assessment, 2000 Report, Geneva and New York. Last updated data in November 2006, available at: http://www.childinfo.org/areas/water/countrydata.php Millennium Development Goals Indicators, http://millenniumindicators.un.org/unsd/mdg/Handlers/ExportHandler.ashx?Type=Excel&Series=667 Taiwan: Department of Environmental Monitoring and Information Management, EPA.
Source URL:	http://go.worldbank.org/6HAYAHG8H0 http://www.childinfo.org/areas/water/countrydata.php
Methodology:	The WHO defines an improved drinking water source as piped water into dwelling, plot or yard; public tap/standpipe; tubewell/borehole; protected dug well; protected spring; and rainwater collection (WHO 2007). Values for Lybia, Oman and Saudi Arabia are 2000 values, and for New Zeeland are 1995 values. Belgium, Greece, Ireland, Italy, Portugal, Bahrain, Bermuda, Cayman Islands, Falkland Islands, Faeroe Islands, Hong Kong Special Administrative Region of China, Kuwait, Liechtenstein, Macao Special Administrative Region of China, San Marino and Holy See were also set to 100 on the basis that their per capita incomes exceeded US$15,971, which is the empirical threshold beyond which all countries have 100% coverage. Lithuania, Macedonia and Poland were imputed based on the regression model predicting ACSAT using log of per-capita income.
Additional Citations:	WHO (World Health Organization). 2007, Country Profiles of Environmental Burden of Disease, Available online at http://www.who.int/quantifying_ehimpacts/countryprofiles/en/index.htm

Indicator Code: **PM10**
Indicator Short Name: **Urban Particulates**
Indicator Full Name: Population-weighted PM10 Concentration in Urban Areas

Objective: Environmental Health
Policy Category: Environmental Health
Subcategory: Air Pollution (Effects on Humans)

Indicator Description: Data for countries and aggregates for regions and income groups are urban-population weighted PM10 levels in residential areas of cities with more than 100,000 residents. The state of a country's technology and pollution controls is an important determinant of particulate matter concentrations (WDI 2007); see: Pandey et al. (2006).

Units: micro-grams per cubic meter

Country Coverage: 186
Reference Year: 2004 or MRYA

Target: 20 micro-grams per cubic meter
Target Source: WHO guidelines

Short Source: WDI, 2007
Source: World Development Indicators, 2007, World Bank Taiwan: Department of Environmental Monitoring and Information Management, EPA.
Source URL: http://go.worldbank.org/6HAYAHG8H0

Methodology: PM10 data are acquired from modeling data. The model is based on reliable PM10 and TSP measurement with multiple determinants such as energy consumption, atmospheric and geographical factors, city and national population density, and others. Then concentration levels of each city are weighted according to their urban populations in residential areas of cities with more than 100,000 residents. The estimates represent the average annual exposure level of the average urban resident to outdoor particulate matter.

Additional Citations: Pandey, K.D., D. Wheeler, B. Ostro, U. Deichmann, K. Hamilton, and K. Bolt. (2006). "Ambient Particulate Matter Concentrations in Residential and Pollution Hotspot Areas of World Cities: New Estimates Based on the Global Model of Ambient Particulates (GMAPS)," World Bank, Development Research Group and Environment Department.

Indicator Code: **INDOOR**
Indicator Short Name: **Indoor Air Pollution**
Indicator Full Name: Percentage of Population Using Solid Fuels

Objective: Environmental Health
Policy Category: Environmental Health
Subcategory: Air Pollution (Effects on Humans)

Indicator Description: Solid fuels include biomass fuels, such as wood, charcoal, crops or other agricultural waste, dung, shrubs and straw, and coal. The use of solid fuels in households is associated with increased mortality from pneumonia and other acute lower respiratory diseases among children as well as increased mortality from chronic obstructive pulmonary disease and lung cancer (where coal is used) among adults (WHO, 2007).

Units: Percentage of population using solid fuels

Country Coverage: 175
Reference Year: 2003

Target: 0 percent
Target Source: Expert judgment

Short Source: Smith et al., 2004
Source: Smith KR, Mehta S, Maeusezahl-Feuz M. 2004. Indoor air pollution from household use of solid fuels. In: Comparative Quantification of Health Risks: Global and Regional Burden of Disease Attributable to Selected Major Risk Factors (Ezzati M, Lopez AD, Rodgers A, Murray CJL, eds). Geneva: World Health Organization, 1435-1493
Taiwan: Department of Environmental Monitoring and Information Management, EPA.
Source URL: http://www.who.int/quantifying

Methodology: These data were collected from national wide household surveys. The survey data of percentage of solid fuel use population cover 52 countries. The rest of the data are generated from models predicting solid fuel use. The model used SFU values from the household fuel use database, and assumed that as countries develop economically, people gradually shift up an energy ladder from solid fuels to cleaner fuels. The final exposed population is calculated as: Household equivalent solid fuel exposed population = population using solid fuel × ventilation factor.

Additional Citations:

Desai, M.A., S. Mehta, K.R. Smith. (2004) Indoor smoke from solid fuels: Assessing the environmental burden of disease. Environmental burden of disease series No. 4. Geneva, World Health Organization.

Mehta S, et al. Modeling household solid fuel use towards reporting of the Millennium Development Goal indicator. In press. Energy for Sustainable Development, June 2006.

WHO (World Health Organization). 2007, Country Profiles of Environmental Burden of Disease, Available online at http://www.who.int/quantifying_ehimpacts/countryprofiles/en/index.ht

Indicator Code:	**OZONE_H**
Indicator Short Name:	**Local Ozone**
Indicator Full Name:	Local Ozone with Effects on Human Health
Objective:	Environmental Health
Policy Category:	Environmental Health
Subcategory:	Air Pollution (Effects on Humans)

Indicator Description: Population-weighted accumulated hourly concentrations of high level ozone with a threshold of 85ppb

Units: Exceedance person ppb per capita

Country Coverage: 223
Reference Year: 2000

Target: 0 exceedance above 85 pbb
Target Source: Expert Judgment

Short Source: MOZART-2 Global Chemical Tracer Model, 2000
Source: Ozone concentrations data: MOZART-2 Global Chemical Tracer Model, The National Center for Atmospheric Research (NCAR)
Source URL: http://gctm.acd.ucar.edu/mozart/models/m2/index.shtml

Methodology: Ozone has an impact on human health and has been associated in epidemiological studies with premature mortality. The health ozone measure was calculated using MOZART-2 data using the following method:
1) For each grid cell, for each hour in the year, the exceedance (if any) above 85 ppb was calculated.
2) The exceedance value was resampled to 30 arc seconds and overlaid with the GRUMP population data. Exceedance values were multiplied by population total for each 30-arc-second grid cell.
3) Using zonal statistics the excedance-person-hours were summed by country.
4)The summed exceedance-person-hours were divided by total county population.

Additional Citations: Horowitz, L., et al., A global simulation of tropospheric ozone and related tracers: Description and evaluation of MOZART, version 2, J. Geophys. Res., 108(D24), 4784, doi:10.1029/2002JD002853, 24 December 2003.

Indicator Code: **OZONE_E**
Indicator Short Name: **Regional Ozone**
Indicator Full Name: Regional Ozone with Effects on Ecosystem

Objective: Ecosystem Vitality
Policy Category: Ecosystem Impacts of Atmospheric
Subcategory: Air Pollution (Effects on Environment)

Indicator Description: An accumulated exposure concentration over a threshold of 40ppb in daylight time of growing season

Units: Exceedance square-kilometer-hours per square kilometer

Country Coverage: 223
Reference Year: 2000

Target: 0 exceedance above 3000 ppb.h
Target Source: Expert Judgment

Short Source: MOZART-2 Global Chemical Tracer Model, 2000
Source: Ozone concentrations data: MOZART-2 Global Chemical Tracer Model, The National Center for Atmospheric Research (NCAR)
Source URL: http://gctm.acd.ucar.edu/mozart/models/m2/index.shtml

Methodology: The ecological ozone measure was calculated using MOZART-2 data using the following method:
1) We assigned latitudes>0 to the northern hemisphere and latitudes<=0 to the southern
2) We assigned daylight hours to each band of latitude using information on sunrise and sunset times at http://aa.usno.navy.mil/data/docs/RS_OneYear.php
3) We subset the database to include only summer daylight hours (June-August in the north and December-February in the south)
4) We summed exceedances above 40 ppb.
5) We multiplied exceedance sums by land area, for each grid cell.
6) Using zonal statistics, we summed these exceedance-square kilometer products by country.
7) We divided these sums by total country area.

Additional Citations: Horowitz, L., et al., A global simulation of tropospheric ozone and related tracers: Description and evaluation of MOZART, version 2, J. Geophys. Res., 108(D24), 4784, doi:10.1029/2002JD002853, 24 December 2003.

International Cooperative Programme on Effects of Air Pollution on Natural Vegetation and Crops. 2007. AOT40 – The Parameter Used to Represent the Accumulated Dose of Ozone. Available at:http://icpvegetation.ceh.ac.uk/8AOT40.htm

Indicator Code:	**SO2**
Indicator Short Name:	**Sulfur Dioxide (SO2) emissions**
Indicator Full Name:	Sulfur Dioxide (SO2) emissions per populated land area
Objective:	Ecosystem Vitality
Policy Category:	Ecosystem Impacts of Atmospheric
Subcategory:	Air Pollution (Effects on Environment)

Indicator Description: Data used in EDGAR are taken from the best possible international information sources, however it is stressed that the uncertainties in the resulting datasets may be substantial at the country level, especially for methane and nitrous oxide. These uncertainties are due to the limited accuracy of international activity data and, in particular, the emission factors utilized in calculating emissions at the national level. Data presented, however, do provide a reliable dataset for comparability since EDGAR employs methods that are comparable to IPCC methodologies and has global totals that agree with budgets used in other atmospheric studies. In addition to the data reliability issues described above, please see the “Uncertainties” and “Disclaimer” sections of the EDGAR website for more information regarding the various nuances of this dataset.

The EDGAR 3.2 database provides global annual emissions per country and on a 1×1 degree grid for 1990 and 1995 for direct greenhouse gases CO2, CH4, N2O and HFCs, PFCs and SF6 and the precursor gases CO, Nox, NMVOC and SO2.”

Units: Metric Tons

Country Coverage: 215
Reference Year: 2000

Target: 0 Metric Tons
Target Source: Expert Judgment

Short Source: EDGAR V2.0 by Netherlands National Institute for Public Health and the Environment (RIVM) and the Netherlands Organization for Applied Scientific Research (TNO).
Source: EDGAR V2.0 by Netherlands National Institute for Public Health and the Environment (RIVM) and the Netherlands Organization for Applied Scientific Research (TNO). The Netherlands National Institute for Public Health and the Environment/The Netherlands Environmental Assessment Agency (RIVM/MNP) and the Netherlands Organization for Applied Scientific Research (TNO). (2005). The Emission Database for Global Atmospheric Research (EDGAR) 3.2 Fast Track 2000 and 3.2. Acidifying gases: SO2 (Sulfur Dioxide): Extended Emissions 2000 and Aggregated Emissions 1990/1995. The Netherlands, MNP.
Source URL: http://www.mnp.nl/edgar/

Methodology: The sulfur dioxide emissions were divided by the land area populated at more than five persons per square kilometer. Total land area was not used in order not to favor countries with very large land areas.

Additional Citations: Olivier, J.G.J., Bouwman, A.F., Berdowski, J.J.M., Veldt, C., Bloos, J.P.J., Visschedijk, A.J.H., Van der Maas, C.W.M. and P.Y.J. Zandveld. (1999). Sectoral emission inventories of greenhouse gases for 1990 on a per country basis as well as on 1o x 1o. Environmental Science & Policy, 2, 241-264.

Indicator Code: **WATQI**
Indicator Short Name: Water Quality Index
Indicator Full Name: Water Quality Index

Objective: Ecosystem Vitality
Policy Category: Water
Subcategory: Water (Effects on Environment)

Indicator Description: The water quality parameters chosen to be included in the EPI were selected for two reasons. Firstly, they are good indicators of specific issues relevant on a global basis (eutrophication, nutrient pollution, acidification, salinization). Secondly, the parameters were chosen because they are the most consistently reported; that is, we have the most data for these parameters compared to other relevant parameters that were not included. Because water quality is a function of a number of different physical and chemical parameters measured during routine water quality monitoring, as outlined above, a global index of the general status of water quality, ranked on a country by country basis, is best developed as a composite index of several key parameters.

Units: Proximity-to-Target

Country Coverage: 232: 94 countries with quality monitoring data; 138 countries with imputed water quality
Reference Year: 2003 (average year for all stations and parameters)

Target: proximity-to-target score of 100 (based on monitoring station parameter scores)
Target Source: Expert judgment and national standards (see EPI Water Quality Expert Group report)

Short Source: GEMS, 2008
Source: United Nations Environment Program GEMS/Water Programme 2008, online database available at: http://www.gemstat.org

European Environment Agency Waterbase Rivers & Lakes data sets, v7 (2007), available at: http://www.eea.europa.eu/themes/water/datasets

Taiwan Environmental Protection Administration Executive Yuan, R.O.C. 2005. River and lake water quality data available at: http://edb.epa.gov.tw/engenvdb2/
National contacts: Niger: Mr. Ilia Bounari, Hydrochimie à la Division de la Qualité et Pollution des Eaux, Niger Algeria : Mr. Mohamed Ramdane, Agence Nationale des Ressources Hydrauliques, ALGERIE Israel: Dr. Ami Nishri, Kinneret Limnological Laboratory, Israel Oceanographic & Limnological Research.
Source URL: http://www.gemswater.org

Methodology: WATQI is a proximity-to-target composite indicator with station density adjustment that was calculated as follows. Raw data for five parameters—Dissolved Oxygen (DO), Electrical Conductivity (EC), pH, Total Phosphorus (P) (or Ortho Phosphorus), Total Nitrogen (N) (or Dissolved inorganic Nitrogen, Nitrate+Nitrite, or Ammonia)—were obtained from UNEP/GEMS Water and European Environmental Agency (EEA) Waterbase, and national sources listed in the source field. The raw data for all parameters except pH and DO were winsorized (trimmed) at the extreme 95th percentile. Then proximity-to-target (PTT) values were calculated using the targets specified by UNEP/GEMS water such that 100 corresponds to meeting the target (or falling into the target range in the case of pH) and values between 0 and less than 100 indicate an increasing distance from the target (or target range in the case of pH). The individual targets used were as follows: DO of 6 mg/L for “warm waters” (>20C) and 9.5 mg/L for “cold waters” (<20C); pH of 6.5-9.0; EC of 500 micro-Siemens/cm; P of 0.05 mg/L (or 0.025 for orthohosophate); N of 1 mg/L (or 0.5 for dissolved inorganic N or nitrate+nitrite and 0.05 for ammonia). Total N and Total P are the preferred indicators of nutrient pollution; thus, maximum possible scores for countries that reported other forms of nutrients were adjusted such that the best possible PTT scores for Ortho P and Dissolved inorganic N were set to 80, and for Nitrate+Nitrite and Ammonia were set to 60. Station-level PTT values were summed and divided by 5 to generate a station-level WQI that ranged from 0 to 100. Station-level WQI’s were averaged to country WATQI’s using only those stations that report the maximum number of parameters within the country.

Country WATQIs were adjusted for density of monitoring stations based on national water quality monitoring data collated by UNEP/GEMS Water. Country WATQI scores were adjusted using the following multipliers based on the density of the monitoring station network per populated land area (land area populated at >5 persons per sq. km, as calculated by CIESIN, 2007). Countries received full credit (using a multiplier of 1) if they have a station density greater than or equal to 1 per 1,000 sq. km; PTT scores were multiplied times 0.95 if they had a station density of 0.1-0.99 per 1,000 sq. km; PTT scores were multiplied times 0.9 if they had a station density of 0.01-0.099 per 1,000 sq. km; PTT scores were multiplied times 0.85 if they had a station density of 0.001-0.0099 per 1,000 sq. km; and PTT scores were multiplied times 0.8 if they had a station density of <0.001 per 1,000 sq. km.

We were able to use the above methodology to complete data for 94 countries. For countries with no WATQI from UNEP/GEMS or the EEA, a regional imputed value was used according to this rule: For

UNEP-GEO subregions with UNEP/GEMS WATQI available for at least half of the countries in that region, the 0.33 percentile WATQI was used; for UNEP-GEO subregions with UNEP/GEMS WQI available for less than half of the countries in that region but more than 3 WQIs, the average minus a 10 point penalty was used. For remaining regions, we applied the following method: for Meso-America the average of available WQI's for Meso and North America minus a 10pt penalty was used; for Eastern Africa, we took the average for Kenya and Uganda and applied a 10 point penalty; for Southern Africa we took the average for South Africa and Tanzania and applied a 10 point penalty; for Central Africa we took the score for the Democratic Republic of Congo and applied a 10 point penalty; for Central Asia we took the average of the 33rd percentile score for South Asia and the score for Russia with a 10 point penalty; for the Caribbean we took the score for Cuba with 10 point penalty; for the South Pacific we took the average scores for Fiji and Papua New Guinea and applied a 10 point penalty; for the Arabian Peninsula & Mashriq, we took the average scores for Iraq and Jordan and applied a 10 point penalty.

Additional Citations: Center for International Earth Science Information Network (CIESIN), Columbia University, (2007). National Aggregates of Geospatial Data: Population, Landscape and Climate Estimates, v. 2 (PLACE II), Palisades, NY: CIESIN, Columbia University. Available at: http://sedac.ciesin.columbia.edu/place/

Indicator Code:	**WATSTR**
Indicator Short Name:	**Water Stress**
Indicator Full Name:	Percentage of National Territory Experiencing Water Stress (withdrawals exceed 40% of available supply)
Objective:	Ecosystem Vitality
Policy Category:	Water
Subcategory:	Water (Effects on Environment)

Indicator Description: The EPI water stress indicator is the percentage of a country's territory affected by oversubscription of water resources. A high degree of oversubscription is indicated when the water use is more than 40% of available supply (WMO, 1997). Countries can to some extent accommodate oversubscription in one region with inter-basin transfers, water re-use and desalination but some of these engender significant environmental impacts of their own. Thus, the ultimate target for each country is to have no area of their territory affected by oversubscription.

Units: Percentage of national territory with water withdrawals exceeding 40% of available supply

Country Coverage: 171
Reference Year: Contemporary (mean annual 1950-1995)

Target: 0 percent
Target Source: Expert Judgment

Short Source: University of New Hampshire, Water Systems Analysis Group.
Source: University of New Hampshire, Water Systems Analysis Group.
Source URL: http://www.watsys.sr.unh.edu

Methodology: Human water demand was computed using the following data sources: population per grid cell; per capita country or sub national level industrial water demand; irrigated land extent per grid cell according to Döll et al. (2000); and country or sub national level agricultural water demand (irrigation). Global discharge fields were computed by blending mean annual discharge observations (where available) with a climatology (1950-1995) of discharge output from the Water Balance Model based on Vörösmarty et al. (1998).

An indicator of relative water demand (RWD) for each 1/4 degree grid cell was computed by dividing total human water demand (domestic + industrial + agricultural water or DIA) by renewable water supply (Q). RWD = 0.4 was established as the threshold for water stressed conditions. The percentage of territory in which water resources are oversubscribed was computed by summing the area of grid cells in each country where RWD >= 0.4. Details on the computation and use of RWD (alternatively known as the Relative Water Stress Index or RWSI) can be found in Vörösmarty et al. (2000) and Vörösmarty et al. (2005).

Additional Citations:

Döll, P., Siebert, S. 2000. A digital global map of irrigated areas. ICID Journal, 49(2), 55-66.

Vörösmarty, C. J., C. A. Federer and A. L. Schloss. (1998). Evaporation functions compared on US watershed: Possible implications for global-scale water balance and terrestrial ecosystem modeling, Journal of Hydrology, 207 (3-4): 147-169.

WMO (World Meteorological Organization).et al. (1997). Comprehensive Assessment of the Freshwater Resources of the World. Geneva, Switzerland.

Vörösmarty, C. J., P. Green, J. Salisbury and R. B. Lammers. (2000). Global water resources: vulnerability from climate change and population growth, Science, 289:284-288.

Vörösmarty, C. J., E. M. Douglas, P. Green and C. Revenga. (2005). Geospatial Indicators of Emerging Water Stress: An Application to Africa, Ambio, 34 (3): 230-236.

Indicator Code: **CRI**
Indicator Short Name: **Conservation Risk Index**
Indicator Full Name: Ratio of Protected to Converted Lands

Objective: Ecosystem Vitality
Policy Category: Biodiversity and Habitat
Subcategory: Biodiversity and Habitat

Indicator Description: The Conservation Risk Index measures the ratio of protected to converted lands and is calculated by WWF biome within each country. It compares the area of each biome in the country that is under protection to the area of each biome that has been converted to other land uses (e.g., from forests to cropland). This indicator is a more comprehensive measure of whether countries are protecting their natural environment on the same spatial scale as habitats are being converted.

Units: Ratio

Country Coverage: 205
Reference Year: 2006 for protected areas, 2000 for land cover

Target: 0.5
Target Source: Expert Judgment

Short Source: The Conservation Strategies Division of The Nature Conservancy calculated this indicator based on third party source data.

Source: Calculations by Timothy Boucher of the Conservation Strategies Division, The Nature Conservancy, based on these data sets:

UNEP-WCMC (United Nations Environment Programme-World Conservation Monitoring Center). (2007). Global Protected Areas Data Set extracted from the World Database on Protected Areas (WDPA) in August 2007 by UNEP World Conservation Monitoring Centre (WDPA custodian) (www.unep-wcmc.org), Cambridge, UK.

Joint Research Centre. Global Land Cover 2000. Available at http://www-gvm.jrc.it/glc2000/ (Note: the USA, Central America and Australia portions of the GLC200 were updated by TNC using more recent and finer resolution data. The sources include the National Land-cover Dataset of the U.S. (Vogelmann 2001), regional datasets for Mesoamerica (Mas et al., 2002; World Bank 2001), National Vegetation Information System (NVIS) Australasia, 2000.)

World Wildlife Fund. (2001). Terrestrial Ecoregions of the World. Available from http://www.worldwildlife.org/science/ecoregions.cfm

Source URL: www.unep-wcmc.org

Methodology: The CRI value per country-biome is based on two 1 km global spatial datasets: the World Database on Protected Areas (2007), which reports the location and distribution of protected areas, and an updated version of the Global Land Cover 2000 data set, which provides the areas of natural habitat converted to human uses versus those not converted to human uses. The target for the Conservation risk index is the global average ratio of 1:2 (protected lands : converted lands). A ratio of protected to converted of less than 0.5 reflects poor performance in protecting a particular terrestrial biome. A score above 0.5 reflects a better than average performance in protecting a given biome. For example, the CRI for the Namibian Tropical Grasslands is 1.4 (i.e. 9.3% Protected and 6.6% Converted), which is a good performance rating.

The method for calculating CRI (Hoekstra et al. 2005) was implemented as the ratio between the percent of protected area per country-biome and the percent of converted land per country-biome. Data were generated at a 1 km level of resolution and percent values derived at the country-biome unit of analysis. The World Database on Protected Areas (2007), which gives us the protected vs. non-protected areas was processed as follows: (1) only National PAs were used (no international PAs); (2) PAs were removed that had the following Status: “proposed”, “voluntary” or “recommended”; (3) only PA points that did not have polygons and did not have a status according to #2 were buffered according to their defined area (using a Mollweide Projection); (4) the buffered points and polygons datasets were merged for the final WDPA dataset; and (5) an Arcinfo GRID with a 1km resolution was created from the final protected areas mask, with a value of 0 for unprotected and 1 for protected.

For the reclassified and updated GLC2000, an Arcinfo GRID was created with a value of 0 for unconverted lands, and a value of 1 for converted lands.

The zonal mean was calculated for each GRID for the WWF-biome-country dataset (the union of the country dataset and the WWF biome dataset). Calculating the zonal mean of each GRID by country-biome (pixel value 0 or 1) results in a value that can be used a percentage.

Note: For the country-biome units that were smaller than what can be reasonable calculated from the 1 km spatial data, areas were counted as ‘no data’. Given their size the resulting indicator should not be impacted.

Additional Citations:

Hoekstra et al. 2005 National Vegetation Information System (NVIS) – Australasia, 2000. http://www.deh.gov.au/erin/nvis/index.html

Vogelmann, J.E., S.M. Howard, L. Yang, C.R. Larson, B.K. Wylie, N. Van Driel. (2001). Completion of the 1990s National Land Cover Data Set for the Conterminous United States from Landsat Thematic Mapper Data and Ancillary Data Sources, Photogrammetric Engineering and Remote Sensing, 67, pp. 650-652.

Mas, J.-M., Velazquez, A., Palacio-Prieto, J.L., Bocco, G., Peralta, A., and Prado, J. (2002). Assessing forest resources in Mexico: wall-to-wall land use/cover mapping. Photogrammetric Engineering & Remote Sensing, Vol. 68, No. 10, pp. 966-1000.

Indicator Code: **EFFCON**
Indicator Short Name: **Effective Conservation**
Indicator Full Name: Effective Protected Area Conservation by Biome

Objective: Ecosystem Vitality
Policy Category: Biodiversity and Habitat
Subcategory: Biodiversity and Habitat

Indicator Description: This indicator measures the percentage habitat by biome that has been effectively conserved within each biome by country. The effective protected area conservation index gives a protected area value for each terrestrial biome within a country by spatially overlaying three 1 km global spatial datasets, the World Database on Protected Areas (2007), the Wildlife Conservation Society/CESIN Human Footprint (2007), and biomes from the WWF Ecoregions of the World dataset (Olson et al., 2001). By combining these measures the index provides a measure of how much habitat within protected areas is actually intact or relatively intact (i.e., has a low human footprint). The World Database on Protected Areas (2007) is a dataset on the location and distribution of protected areas. The CIESIN/Wildlife Conservation Society Human Footprint is a dataset on human impacts on land, measured by transportation networks (roads, railroads and rivers), population densities, and urban areas. The Human Footprint is used here to classify locations that are either under high or low threat/use by humans. Areas within a designated protected area that have a high human footprint(one which is incompatible with biodiversity) are deducted from the protected area, with the effect of lowering the area of specific biomes identified as protected within that country. This is a better measure of the amount of land under protection because it accounts for areas that are not fully protected because of land conversion, roads, and populated places that might exist within a protected area.

All three datasets are widely accepted and used, even though as all other global databases they do have limitations relative to the resolution of the data and problems with protected area delineations. The effective conservation target is 10% of each terrestrial biome within a country. In order to ensure that above target performance for one biome does not mask below target performance for another, performance is capped at 10% for each biome. This target is based upon the internationally agreed upon target set by the Convention on Biological Diversity.

Units: Percentage Territory

Country Coverage: 233
Reference Year: 2007

Target: 10 percent
Target Source: Convention on Biological

Short Source: The Conservation Strategies Division of The Nature Conservancy calculated this indicator based on third party source data.
Source: Calculations by Timothy Boucher of the Conservation Strategies Division, The Nature Conservancy, based on three data sets:

UNEP-WCMC (United Nations Environment Programme-World Conservation Monitoring Center). (2007). Global Protected Areas Data Set extracted from the World Database on Protected Areas (WDPA) in August 2007 by UNEP World Conservation Monitoring Centre (WDPA custodian) (www.unep-wcmc.org), Cambridge, UK.

CIESIN and Wildlife Conservation Society. (2007). Human Footprint v.2 (beta). Available from http://sedac.ciesin.columbia.edu/wild_areas/

World Wildlife Fund. (2001). Terrestrial Ecoregions of the World. Available from http://www.worldwildlife.org/science/ecoregions.cfm
Source URL: www.unep-wcmc.org http://sedac.ciesin.columbia.edu/wild_areas/

Methodology: The Effective protected area conservation value per country-biome is based on three 1 km global spatial datasets: World Database on Protected Areas (2007), which gives us the protected vs. non-protected areas; (b) the CIESIN and Wildlife Conservation Society Human Footprint (2007) which, by using statistic natural breaks and calibrated with known areas, was reclassified into high or low threat/use by humans; and© biomes from the WWF Ecoregions of the World dataset (Olson et al., 2001). The following specific steps were taken.

The World Database on Protected Areas (2007) was processed as follows:
(1) only National PAs were used (no international PAs);
(2) PAs were removed that had the following Status: “proposed”, “voluntary” or “recommended”;
(3) only PA points that did not have polygons and did not have a status according to #2 were buffered according to their defined area (using a Mollweide Projection);

(4) the buffered points and polygons datasets were merged for the final WDPA dataset; and
(5) an Arcinfo GRID with a 1km resolution was created from the final protected areas mask, with a value of 0 for unprotected and 1 for protected.

By using statistic natural breaks and calibrated with known areas, the CIESIN and Wildlife Conservation Society Human Footprint(2007) was reclassified into high or low threat/use by humans. TNC classified the continuous index data of the Human Influence Index according to frequency distribution and variance using Jenk's Natural Breaks. The 0-24 range of values was identified as a surrogate for the least threatened and human-impacted areas. This class not only encompasses the "Last of the Wild" (Sanderson et al. 2002) areas, but also includes areas with low levels of human population that are distant from human access points, such as roads. Index values equal or above the 25 mark were identified as moderately to heavily impacted. This class includes all human-disturbed areas – those within and nearby roads, populated places, and agriculture. The reclassified HII was reclassified using the following values: a 1 for low and a 0 for high.

Multiplying the two datasets (using the Spatial Analysis Tool in Arcinfo) produced a final GRID with areas that are (a) protected and have a low threat/use have a value of 1, and (b) other areas (those with high threat/use or unprotected) resulted in a value of 0. The zonal mean was calculated using the final GRID for the Country-Biome dataset. Calculating the Zonal Mean of the GRID by Country-Biome (pixel value 0 or 1) results in a value that can be used a percentage.

The effective protected area conservation target is 10% of land by biome conserved within a country. Protection by biome is capped at 10% so that countries cannot offset less than 10% protection of any given biome with greater than 10% protection in another.

Caveats: All three datasets are widely accepted and used, even though as with all other global databases they do have limitations relative to the resolution of the data and problems with protected area delineations. Further spatial errors can arise in the overlay process, especially for the smallest island nations.

Additional Citations:

Olson, D.M., E. Dinerstein, E.D. Wikramanayake, et al. (2001). Terrestrial Ecoregions of the World: A New Map of Life on Earth, Bioscience 51(11), pp. 933-938.

Sanderson, E.W., M. Jaiteh, M.A. Levy, K.H. Redford, A.V. Wannebo, and G. Wolmer. (2002). "The Human Footprint and the Last of the Wild," BioScience, Vol. 52, No. 10, pp. 891-904.

Indicator Code:	**AZE**
Indicator Short Name:	**Critical Habitat Protection**
Indicator Full Name:	Percent of Alliance for Zero Extinction Sites Protected

Objective:	Ecosystem Vitality
Policy Category:	Biodiversity and Habitat
Subcategory:	Biodiversity and Habitat

Indicator Description:

Percent of Alliance for Zero Extinction (AZE) Sites Protected is designed to give more rigorous insight into the protection of highly endangered species. It catalogs whether countries provide protection for sites designated by the Alliance for Zero Extinction (AZE). Indices that look at species conservation by country can be difficult to develop, as the percentage of endangered species within a country is tied to the natural endowment of the country. Moreover, species are assessed as threatened on the basis of their global conservation status. This means that even if a country takes extensive measures to protect that species in its own territory, they might still rank poorly on an index that looks at the percentage of endangered species at the global level.

The Alliance for Zero Extinction is a joint initiative of 52 biodiversity conservation organizations, which aims to prevent extinctions by identifying and safeguarding key sites, each one of which is the last remaining refuge of one or more Endangered or Critically Endangered species. They follow the IUCN Red List criteria for Endangered or Critically Endangered species; therefore it uses a consistent and standardized approach and criteria across the world. To date, AZE has identified 595 sites that each represents the last refuge of one or more of the world's most highly threatened species.

An AZE site must meet all three of the following criteria:
a) Endangerment. An AZE site must contain at least one Endangered (EN) or Critically Endangered (CR) species, as listed by IUCN – World Conservation Union.
b) Irreplaceability. An AZE site should only be designated if it is the sole area where an EN or CR species occurs, or contains the overwhelmingly significant known resident population of the EN or CR species, or contains the overwhelmingly significant known population for one life history segment (e.g., breeding or wintering) of the EN or CR species.
c) Discreteness. The area must have a definable boundary within which the character of habitats, biological communities, and/or management issues have more in common with each other than they do with those in adjacent areas.

Units: Percentage

Country Coverage: 86
Reference Year: 2004

Target: 100%
Target Source: Expert Judgment

Short Source: Conservation Strategies Division, The Nature Conservancy.
Source: Results based on Ricketts et al., 2005.
Source URL: not available

Methodology: We calculated the percent of AZE sites within each country that are within a protected area, based on the published paper by Ricketts et al. (2005).

Additional Citations:

Ricketts, T.H., et al. (2005). Pinpointing and preventing imminent extinctions. Proceedings of the National Academy of Sciences, 51, pp. 18497-18501.

Indicator Code:	**MPAEEZ**
Indicator Short Name:	**Marine Protected Areas**
Indicator Full Name:	Percentage of Exclusive Economic Zone (EEZ) Area that is Protected
Objective:	Ecosystem Vitality
Policy Category:	Biodiversity and Habitat
Subcategory:	Biodiversity and Habitat

Indicator Description: Home to mangroves, sea grasses, coral reefs, and other critical habitats, coastal areas are vital to marine biodiversity. There is growing recognition of the need to protect coastal and marine resources from over-fishing and other activities the damage habitat. This indicator represents a simple assessment of the percent area in each country's exclusive economic zone that is protected. The target is set to 10%, the same as for terrestrial protected areas.

Units: Percentage area

Country Coverage: 132
Reference Year: 2006

Target: 10%
Target Source: Convention on Biological

Short Source: Suzanne Mondoux and Louisa Wood, Fisheries Centre, University of British Columbia
Source: Data compiled by Suzanne Mondoux and Louisa Wood, Fisheries Centre, University of British Columbia. Original data developed in a collaboration between the Sea Around Us Project, World Wildlife Fund (WWF), United Nations Environment Programme – World Conservation Monitoring Centre (UNEP-WCMC) and the World Conservation Union – World Commission on Protected Areas (IUCN-WCPA).
Source URL: http://www.mpaglobal.org/

Methodology: Protected areas were coded as marine if they principally cover the marine portion of the coastal zone. The area of marine protected areas was tallied and divided by the total area in a country's exclusive economic zone (EEZ). For countries with more than one EEZ, the MPA area and EEZ areas were summed, and then the total area protected was divided by the combined total EEZ area for the country.

Additional Citations: Wood, L. J. (2007). MPA Global: A database of the world's marine protected areas. Sea Around Us Project, UNEP-WCMC & WWF. Available at http://www.mpaglobal.org

Indicator Code:	**FORGRO**
Indicator Short Name:	**Change in Growing Stock**
Indicator Full Name:	Change in the Volume of Growing Stock
Objective:	Ecosystem Vitality
Policy Category:	Productive Natural Resources
Subcategory:	Forestry

Indicator Description: Growing stock is defined as the standing tree volume of the forest resources. An increase in growing stock usually means higher quality forests, whereas a decrease in growing stock generally indicates degrading forest conditions. For simplicity in measurement and explanation of the forest resources condition, growing stock is a good choice.

Although growing stock is important, standing tree volume alone is not sufficient for a detailed analysis. For example, future wood supply is highly dependent on the age class distribution, or the stand structures and the management system applied. Further, biodiversity requires diversity, e.g., in tree species and succession stages. Carbon storage is highly dependent on soil carbon, which may not be directly correlated to tree volume. Finally, converting primary forests to forest plantations may increase the tree volume but it generally degrades the condition (related to biodiversity and ecosystems) of the natural habitat.

Units: cubic meters/hectare

Country Coverage: 127 (deforestation data were used to increase country coverage to 230)
Reference Year: 2005:2000

Target: No Decline
Target Source: Expert Judgment

Short Source: Forestry Department, Food and Agricultural Organization of the United Nations
Source: Food and Agricultural Organization of the United Nations. (2005). Global Forests Resources Assessment 2005. Rome, FAO.
Source URL: http://www.fao.org/forestry/site

Methodology: Growing stock is a volumetric measure that measures the cubic meters of wood over bark of all living trees more than X cm in diameter at breast height. It includes the stem from ground level or stump height up to a top diameter of Y cm, and may also include branches to a minimum diameter of W cm. Countries indicate the three thresholds (X, Y, W in cm) and the parts of the tree that are not included in the volume. Countries must also indicate whether the reported figures refer to volume above ground or above stump. The diameter is measured at 30 cm above the end of the buttresses if these are higher than 1 meter. Growing stock includes windfallen living trees but excludes smaller branches, twigs, foliage, flowers, seeds, and roots.

The ratio of growing stock in cubic meters was taken for 2005 and 2000. Ratios greater than 1 indicate that the growing stock increased over the time period, and ratios less than 1 indicate that it decreased. Countries with a growing stock of 1 or greater were taken to be “at target”. Countries with declining growing stock were considered to be below target. For Germany, the ratio of 2000 to 1990 data was used instead.

For countries without growing stock data, data on percent change in forest area were used. The correlation between growing stock and deforestation data is very high (excluding three outliers, Comoros, Indonesia, and Micronesia, the $R2 = 0.81$, $p<.001$,), so this was determined to be a robust way to impute the value for change in growing stock.

Additional Citations: not available

Indicator Code:	**MTI**
Indicator Short Name:	**Marine Trophic Index**
Indicator Full Name:	Slope of Marine Trophic Index from 1950-2004
Objective:	Ecosystem Vitality
Policy Category:	Productive Natural Resources
Subcategory:	Fisheries

Indicator Description:

The marine trophic level ranges from 1 in plants to 4 or 5 in larger predators. It expresses the relative position of fish and other animals in the hierarchical food chain that nourishes them. They provide food for small fish which, have a trophic level of about 3,and the small fish are eaten by slightly larger fish that have a trophic level of 4, which, in turn, are what large predators such as sharks and marine mammal and humans typically eat (Pauly and MacLean 2003).

If the average level at which a country's fisheries is catching fish declines over time, it means that the overall the trophic structure of the marine ecosystem is becoming depleted of larger fish higher up the food chain, and is resorting to smaller fish.

This indicator measures the slope of the trend line in the Marine Trophic Index (MTI) from 1950-2004. If the slope is 0 or is positive, the fishery is either stable or improving. If the slope is negative (below 0), it means the fishery is declining, and that smaller and smaller fish are being caught.

Units: Slope of Trend Line

Country Coverage: 134
Reference Year: 1950-2004

Target: No Decline
Target Source: Expert Judgment

Short Source: Sea Around Us Project and the Convention on Biological Diversity
Source: Sea Around Us Project and the Convention on Biological Diversity
Source URL: http://www.seaaroundus.org/

Methodology:

Using the Sea Around Us website, data were gathered on the slope of the trend line in the Marine Trophic Index (MTI) from 1950to 2004 for a country's exclusive economic zones (EEZs). For countries with more than one EEZ, a weighted average slope was calculated on the basis of the relative size of the EEZs.

Data for Albania were only available through 1970 and data for Eritrea were only available through 1978.

Additional Citations:

Pauly, D., and J.L. MacLean. (2003). In a Perfect Ocean: The State of Fisheries and Ecosystems in the North. Washington, DC, Island Press.

Pauly, D. and Watson, R. (2005). Background and interpretation of the 'Marine Trophic Index' as a measure of biodiversity. Philosophical Transactions of The Royal Society: Biological Sciences 360: 415-423.

Indicator Code: EEZTD
Indicator Short Name: Trawling Intensity
Indicator Full Name: Percentage of Exclusive Economic Zone Area Trawled

Objective: Ecosystem Vitality
Policy Category: Productive Natural Resources
Subcategory: Fisheries

Indicator Description: Benthic trawling is a fishing method that targets fish and invertebrates that inhabit ocean floor (or benthic) ecosystems. These include cod, scallops, shrimp, and flounder. Such trawling comes at a heavy environmental cost. Bottom trawling and dredging equipment has been described as the most destructive fishing gear in use today (Watson, 2004 and 2006). Benthic trawls are boats equipped with large heavy nets that are dragged across the living seafloor. The nets are held open at the front by a metal beam or by large “doors”, which can weigh several tons, and which are designed to scour the bottom as the trawl is dragged along, forcing the fish and invertebrates up into the net. This process exerts a heavy toll on the natural habitats of the sea floor, breaking off brittle bottom flora and fauna such as sponges and corals. Marine species such as turtles that try to escape the gear suffer stress, injury, and quite frequently, death (FAO, 2005).

The damage can last many years and continuous trawling and dredging does not allow the time needed for habitat recovery. Deep-sea coral communities can be wiped out by a single trawl sweep and repeated trawling can change the species composition of the ecosystem toward small opportunistic species, such as sea stars and small short-lived clams, and diminishes the abundance of commercially valuable species.

In addition to disrupting the living seafloor, trawling kills a large number of animals as “by catch,” the accidental harvest of untargeted species, such as other fish and invertebrate species, marine mammals, seabirds, and turtles. Some of this by catch is retained for sale, but a portion of it is returned to the sea, usually dead or dying. These animals returned to sea are known as discards. Bottom trawled fisheries have the highest discard rates of all fisheries. By catch is a contributor to the depletion of fish stocks, and can have a significant impact on endangered species of fish, mammals, turtles and seabirds.

The habitat destruction caused by trawling and dredging directly affects the human communities that depend on marine resources for food and income. Key nursery habitats such as seagrass are essential for sustaining a range of commercially important species. When these nursery habitats are destroyed, the entire local environment is impacted and the productivity of local fisheries, including those employing sustainable fishing methods, decreases.

The 2008 EPI uses a simple calculation of the percentage of the shelf area in each country’s EEZ that is fished by trawlers. There are no direct data available for the area trawled on a country-by-country basis. However, there are good data available describing fish landings and the gear used to catch these fish, and acceptable data on the composition of each country’s fishing fleet.

Units: Percentage Area

Country Coverage: 175
Reference Year: 2004

Target: 0%
Target Source: Expert Judgment

Short Source: Watson et al. 2004; 2006
Source: Watson, R., Hoshino, E., Beblow, J., Revenga, C., Kura, Y., & Kitchingman, A. (2004). Fishing gear associated with global marine catches. Fisheries Centre Research Reports 12(6), 32p.

Watson, R., Revenga, C., & Kura, Y. (2006). Fishing gear associated with global marine catches: II Trends in trawling and dredging. Fisheries Research 79, 103-111.
Source URL: http://www.seaaroundus.org/

Methodology: This indicator is calculated based on the amount of catch that is trawled per one-half degree (30 arc-minute) grid cells. This results in a metric of the area (sq km) associated with combined bottom trawl or dredge catch (supergears 8 or 9) rates >0.05 tonnes/sq km/year within declared EEZ areas. The marine area of the cells are added up to find the total area trawled and then divided by total EEZ. Cells that have a minimal catch are not included in the analysis.

Additional Citations: FAO. (2005). Mortality of fish escaping trawl gears (No. 478). Rome: Food and Agriculture Organization of the United Nations.

Indicator Code: **IRRSTR**
Indicator Short Name: **Irrigation Stress**
Indicator Full Name: Percentage of Irrigated Area that is in Water Stressed Areas

Objective: Ecosystem Vitality
Policy Category: Productive Natural Resources
Subcategory: Agriculture

Indicator Description: Agriculture is by far the largest user of "blue water" (freshwater in streams, lakes, from groundwater aquifers, etc) globally, with irrigation accounting for 70% of freshwater extraction globally and as much as 80-90% in some developing countries. When water is abstracted for irrigation in water stressed areas (catchments in which consumption exceeds 40% of available water supplies) , it can contribute to seasonal low-flows, and to excessive concentration of agrochemicals from agricultural runoff. This indicator simply measures the percentage of irrigated agriculture that falls in areas of water stress within a country.

Units: Percentage Area

Country Coverage: 159
Reference Year: circa 2000

Target: 0%
Target Source: Expert Judgment

Short Source: CIESIN calculation based on global irrigation map by Johann Wolfgang Goethe University and Food and Agriculture Organization of the UN, and water stressed area map by University of New Hampshire Water Systems Analysis Group.

Source: CIESIN calculation based on three data sets:

Johann Wolfgang Goethe University and Food and Agriculture Organization of the UN, Global Map of Irrigation Areas version 4.0.1, available at: http://www.fao.org/nr/water/aquastat/irrigationmap/index10.stm

University of New Hampshire Water Systems Analysis Group, Mean annual relative water stress index (unitless ratio per grid cell),available at http://wwdrii.sr.unh.edu/

Country Grid (CIESIN 2006): Country grid with cell size of 0.083333. Grid values are UNSD codes

Source URL: http://www.fao.org/nr/water/aquastat/irrigationmap/index10.stm http://wwdrii.sr.unh.edu/

Methodology: The Global Map of Irrigation Areas version 4.0.1, with a spatial resolution of 5 arc-minutes, was overlaid on the global map of mean annual relative water stress index, with a spatial resolution of 30 arc-minutes. The irrigated area that fell in water stressed grid cells was summed and divided by the total irrigated area for the country in order to calculate the percentage of irrigated area that is in water stressed areas. The specific processing steps were as follows:

1. Resampled the UNH Relative Water Stress data at 0.083333 grid cell size to match that of the Global Map of Irrigated Areas
2. Reclassify the Relative Water Stress data into the following classes
   a. 1: grid value < 40%
   b. 2:grid value >= 40%
3. Calculate Irrigation area within each class
4. Summary area irrigated in each country using Zonal Statistics\\

Additional Citations: Siebert, S., P. Döll, S. Feick, J. Hoogeveen and K. Frenken. (2007). Global Map of Irrigation Areas version 4.0.1. Johann Wolfgang Goethe University, Frankfurt am Main, Germany / Food and Agriculture Organization of the United Nations, Rome, Italy.

Indicator Code:	**AGSUB**
Indicator Short Name:	**Agricultural Subsidies**
Indicator Full Name:	Agricultural Subsidies represented by Nominal Rates of Assistance(NRA) by country
Objective:	Ecosystem Vitality
Policy Category:	Productive Natural Resources
Subcategory:	Agriculture

Indicator Description: According to a report by the OECD (2004), agricultural subsidies exacerbate environmental pressures through the intensification of chemical use and the expansion of land into sensitive areas. This indicator seeks to assess the magnitude of subsidies in order to assess the degree of environmental pressure they exert. The NRA is defined as the price of their product in the domestic market (plus any direct output subsidy) less its price at the border, expressed as a percentage of the border price (adjusting for transport costs and quality differences).

Units: Proximity-to-Target, with 100 being the target, and 0 being the worst performer

Country Coverage: 238
Reference Year: 2005

Target: 0 NRA; for imputed values, 0% of agricultural GDP
Target Source: Expert Judgment

Short Source: YCELP calculation based on OECD Producer Support Estimates Data, WDR 2008 and the Pilot 2006 EPI
Source: World Development Report Selected Indicators 2008, OECD Producer Support Estimates database 2007, Pilot 2006 EPI
Source URL: http://siteresources.worldbank

Methodology: Where available, we used data on the Nominal Rate of Assistance (NRA) from the World Development Report 2008. NRA is defined as the price of a product in the domestic market, less its price at a country's border, expressed as a percentage of the border price, and adjusted for transport costs and quality differences (WDR 2008). These were converted to the standard EPI proximity-to-target indicator.

NRA data were unavailable for a number of countries for which we had data when we compiled the Pilot 2006 EPI (Costa Rica, Israel, Jordan, Peru, Tunisia, Uruguay, and Venezuela). For these, the indicator was computed by subtracting greenbox subsidies from total agricultural subsidies, which was then divided by the total value of agriculture.

Low and middle-income countries without agricultural subsidies data were imputed a proximity to target score of 0 on the basis that most non-OECD countries do not subsidize their agricultural sector.

Caveats: Combining the 2008 EPI data with the AGSUB indicator data from the 2006 EPI represented a less than perfect solution, yet we were uncomfortable assigning a score of 100 to countries that subsidize their agriculture, and unwilling to estimate subsidy levels for countries that are engaged in agriculture of dubious environmental sustainability. This methodology makes use of the best data available, and we hope to include a more accurate measure in future editions of the EPI, as improved data sources arise.

Additional Citations: Agriculture's “multifunctionality” and the WTO; Kym Anderson; The Australian Journal of Agricultural and Resource Economics, 44:3, pp 475-494

Indicator Code:	**AGINT**
Indicator Short Name:	**Intensive Cropland**
Indicator Full Name:	Percentage of Cropland Area that is in Agriculture-dominated Landscapes
Objective:	Ecosystem Vitality
Policy Category:	Productive Natural Resources
Subcategory:	Agriculture

Indicator Description: As a rough rule of thumb, ecologists agree that if more than 30% of the area of a given landscape is under intensive use for agricultural production, then major ecosystem functions will likely be compromised, and if this level reaches 60%, then special attention is needed to conserve ecosystem functions (Wood et al., 2000). The 2008 EPI sets a target of 40% uncultivated land in areas of crop production, although this figure includes grazing land and settlements, so is quite conservative.

The indicator considers whether each 10km x 10km grid cell where cropping occurs has at least 40% land uncultivated, thereby “making space” for other ecosystem functions. If agriculture makes up more than 60% of the grid cell, the agricultural land in that grid cell is considered to be intensive. The indicator seeks to address the problem of over-clearing, excessive “in-filling” of agricultural landscapes.

Units: Percentage Area

Country Coverage: 158
Reference Year: 2000

Target: 0%
Target Source: Expert Judgment

Short Source: CIESIN calculation based on global cropland grid by Ramankutty et al. (forthcoming).
Source: CIESIN calculation based on global cropland grid from Ramankutty et al. (forthcoming).
Source URL: not available

Methodology: Global cropland grids by Ramankutty et al. (forthcoming) representing the proportion of land that is in cropland per 5 arc-minute grid cell were processed to calculate two figures, the total cropland area per country, and the total cropland area per country in grid cells in which cropland represents more than 60% of land use types in that grid cell. The latter was divided by the former and multiplied by 100 to calculate the percentage of cropland area that is in agriculture-dominated landscapes.

Countries with less than 3,000 sq. km of cropland were considered not to have sufficient cropland for this indicator, and were considered therefore to have no data.

Additional Citations:

Ramankutty, N., A.T. Evan, C. Monfreda, J.A. Foley. (forthcoming). Farming the Planet. Part 1: The Geographical Distribution of Global Agricultural Lands in the Year 2000. Global Biogeochemical Cycles, in press.

Wood, S., K. Sebastian, and S. Scherr. 2000. Pilot Analysis of Global Ecosystems: Agroecosystems. IFPRI and WRI, Washington, DC.

Indicator Code: **PEST**
Indicator Short Name: **Pesticide Regulation**
Indicator Full Name: Degree of Regulation of Toxic Pesticides

Objective: Ecosystem Vitality
Policy Category: Productive Natural Resources
Subcategory: Agriculture

Indicator Description:

Pesticides are a significant source of pollution in the environment, affecting both human and ecosystem health. Pesticides damage ecosystem health by killing beneficial insects, pollinators, and fauna they support. Human exposure to pesticides has been linked to increases in headaches, fatigue, insomnia, dizziness, hand tremors, and other neurological symptoms. Furthermore, many of the pesticides included in this index are persistent organic pollutants (POPs), endocrine disruptors, or carcinogens.

Our indicator of pesticide use examines the legislative status of countries on two landmark agreements on pesticide usage, the Rotterdam and Stockholm conventions, and also rates the degree to which these countries have followed through on the objectives of the conventions by limiting or outlawing the use of certain toxic chemicals. While the Rotterdam convention focuses on trade restrictions and proper labeling of toxic substances, the Stockholm convention seeks to limit or ban the use of the 12 most toxic persistent organic pollutants which bio accumulate and move long distances in the environment.

While ideally, we would use an output measure rather than a legislative measure for this indicator, we concluded after extensive research that the robust data on pesticide usage – especially for banned pesticides for which official data may be scant – were simply not available. While legislative controls do not always match the situation on the ground, this indictor sends a clear message to countries that setting standards for pesticides use is an essential first step in controlling the degree to which toxics are used at a national scale.

Units: 22 Point Scale, with 0 representing the lowest score, and 22 the highest

Country Coverage: 238
Reference Year: 2003

Target: 22 points
Target Source: Expert Judgment

Short Source: YCELP calculation based on data from the Rotterdam Convention and the Stockholm Convention.
Source: YCELP calculation based on data from the Rotterdam Convention and the Stockholm Convention
Source URL: Rotterdam Convention. Available at http://www.pic.int/home.php?type=t&id=5&sid=16
Stockholm Convention on Persistent Organic Pollutants (POPs). Available at http://www.pops.int/.

Methodology:

The indicator encompasses 11 criteria, each of which have a maximum of two possible points. The first two criteria measure whether, and to what degree countries have participated in the conventions. Under the Rotterdam Convention, countries receive 2 points if they are a party and have designated a national authority for its implementation, 1 point if they are a party but have no national authority, and 0 points if they are not a party. Under the Stockholm Convention on Persistent Organic Pollutants, countries receive 2 points if they are a party and have created a national implementation plan (NIP), 1 point if they are a party but have no NIP, and 0 points if they are not a party. These data are available via the respective convention secretariats.

The next nine criteria indicate whether countries have banned (for a score of 2), restricted (for a score of 1), or taken no action (for a score of 0) on regulating the nine of the “dirty dozen” persistent organic pollutants. These include aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, and toxaphene. Data for these criteria were collected from the United Nations Environment Programme Chemicals.

Country performance is a simple sum of the scores across the 11 criteria for a maximum possible score of 22.

Additional Citations: United Nations Environment Programme, Chemicals. Master List of Actions on the Reduction and/or Releases of Persistent Organic Pollutants. June 2003

Indicator Code:	**BURNED**
Indicator Short Name:	**Burned Area**
Indicator Full Name:	Percentage of Country Area Burned
Objective:	Ecosystem Vitality
Policy Category:	Productive Natural Resources
Subcategory:	Agriculture

Indicator Description:

Biomass burning has long been recognized as a significant source of carbon emissions that contribute to climate change, and as an important source of airborne particulates, especially in developing countries. Thus, from atmospheric perspective, it is unambiguously negative. From a land management perspective, however, the role of biomass burning in soil fertility management and ecosystem processes is more difficult to assess. For example, controlled biomass burning in the agricultural sector, on a limited scale, can have positive functions as a means of clearing and rotating individual plots for crop production, and in some ecosystems, as a healthy means of weed control and soil fertility improvement.

In a number of natural ecosystems, such as savannah and scrub forests, wild fires can help maintain biotic functions. However, in tropical forest ecosystems, fires are mostly human induced and environmentally harmful, killing wildlife, reducing habitat, and setting the stage for more fires by reducing moisture content and increasing combustible materials. Even where fire can be beneficial from an agricultural perspective, fires can inadvertently spread to natural ecosystems, setting the stage for further agricultural colonization. Hence, we have chosen to assess fires as, on balance, a negative phenomenon from an agricultural natural resource management perspective.

Units: Percentage

Country Coverage: 160
Reference Year: 2005-2006

Target: 0
Target Source: Expert Judgment

Short Source: L3JRC,2000-2007, CIESIN, 2007
Source: Joint Research Centre’s Global Burnt Areas 2000-2007 (L3JRC)
CIESIN Global Rural-Urban Mapping Project (GRUMP) land area and country grids.
Source URL: not available

Methodology:

The EPI team assessed the extent of burn scars by downloading and processing data for 2000 (representing April 2000-March 2001) and 2005 (representing April 2005-March 2006) from the Joint Research Centre’s Global Burnt Areas 2000-2007 (L3JRC)product, which identifies burnt areas using the SPOT VEGETATION sensor at 1km resolution. These data were simplified to a boolean surface of burnt (1) and non-burnt (0) areas and subsampled from 0.009 degree resolution to 0.008 degrees to match the Global Rural-Urban Mapping Project (GRUMP) land area and country grids. The total burnt area was calculated by multiplying the boolean burnt area grid by the GRUMP land area grid (land area in ha) and summing the results. The country totals were generated by calculating the unique combination of countries (from GRUMP) and burnt areas, then summing the land area grid for the country-burnt area zones.

We calculated total land area burnt for the 12 months from April 2000-March 2001 and April 2005-May 2006 in order to assess land burning during two years under different climate regimes: for the winter of 2000-01 there was a strong La Niña signal in the Pacific Ocean, and for the winter of 2005-06 neither El Niño or La Niña played a role in global climate patterns. We calculated the land area burned as a percentage of total land area in both years, then averaged the percentages.

Additional Citations:

Tansey, K., Grégoire, J.M.C., Defourny, P., Leigh, R., Pekel, van Bogaert, E., Bartholomé, E., Bontemps, S. 2008. A new, global, multi-annual (2000-2007) burned area product at 1 km resolution and daily intervals. Geophysical Research Letters, Vol. 35, L01401, doi:10.1029/2007GL031567

Indicator Code:	**GHGCAP**
Indicator Short Name:	**Emissions Per Capita**
Indicator Full Name:	Greenhouse Gas Emissions Per Capita
Objective:	Ecosystem Vitality
Policy Category:	Climate Change
Subcategory:	Climate Change

Indicator Description: Sum of emissions of six greenhouse gases, in CO2 equivalents, and emissions attributable to land use, divided by total population.

Units: Metric Tons C02 Equivalent Per Person

Country Coverage: 169
Reference Year: 2005:2000

Target: 2.24 Metric Tons C02 Equivalent
Target Source: Calculated by calculating 50%

Short Source: IAE, 2007, Houghton 2003, IMF 2005
Source: International Energy Agency. CO2 Emissions from Fuel Combustion (2004 edition).

International Monetary Fund, World Economic Outlook Database, October 2007 Population year 2005

Houghton, R.A. 2003. Revised estimates of the annual net flux of carbon to the atmosphere from changes in land use and land management 1850-2000. Tellus 55B:378- 390.

Source URL: http://wds.iea.org/WDS/TableViewer/dimView.aspx?ReportId=949

Methodology: For countries missing GHG emission data, values were imputed using a regression model predicting GHG emissions from CDIAC CO2 emissions. For countries missing land-use emissions, values were imputed based on the regional average of land-use emissions were square kilometer.

GHG emissions and land-use emissions were summed and divided by 2005 population.

Additional Citations: not available

Indicator Code:	**CO2KWH**
Indicator Short Name:	**CO2 from Electricity Production**
Indicator Full Name:	Emissions per Kilowatt Hour of Energy Produced
Objective:	Ecosystem Vitality
Policy Category:	Climate Change
Subcategory:	Climate Change
Indicator Description:	Sum of emissions from combustion of all fossil fuel types used for public electricity generation, public combined heat and power generation, and public heat plants.
Units:	g CO2 per kWh
Country Coverage:	213
Reference Year:	2005
Target:	0
Target Source:	Expert Judgment
Short Source:	IAE, 2007
Source:	International Energy Agency. CO2 Emissions from Fuel Combustion (2004 edition).
Source URL:	http://wds.iea.org/WDS/TableV
Methodology:	This data includes emissions from public elec. and heat producers. Carbon dioxide emissions from public electricity and heat production include the sum of emissions from combustion of all fossil fuel types used for public electricity generation, public combined heat and power generation, and public heat plants. Public utilities are defined as those undertakings whose primary activity is to supply the public. Emissions from electricity and heat production for use by the producer (autoproduction) are not included in this variable, as those emissions are attributed to industry, transport or “other” sectors. CO2 from public electricity and heat production corresponds to International Panel on Climate Change (IPCC) Source/Sink Category 1 A 1 a
Additional Citations:	not available

Indicator Code:	**CO2IND**
Indicator Short Name:	**Industrial Carbon Intensity**
Indicator Full Name:	Carbon Emissions from Industry per Industrial GDP
Objective:	Ecosystem Vitality
Policy Category:	Climate Change
Subcategory:	Climate Change

Indicator Description:	Total emissions from industry sector, divided by industrial GDP.
Units:	CO2 per $1000, USD 1995 PPP
Country Coverage:	170
Reference Year:	2005
Target:	.85
Target Source:	27% of current, reduction that
Short Source:	IAE, WDI, 2007
Source:	International Energy Agency. CO2 Emissions from Fuel Combustion (2004 edition). World Development Indicators, Percentage of GDP from Industry, 2005
Source URL:	http://wds.iea.org/WDS/Report
Methodology:	For countries with missing data, values were imputed based on regression model predicting CO2IND using CO2_GDP (CO2 emissions per GDP). Industrial GDP were calculated based on the percentage of GDP from industry, and total GDP. IAE industrial CO2 emissions were divided by industrial GDP to create the indicator.

REFERENCES

Adriaanse, A. 1993. Environmental Policy Performance Indicators: A Study of the Development of Indicators for Environmental Policy in the Netherlands. The Hague: SDU Publishers.

Adriaanse, A., and R. Reiling 1988. Towards a National Reference Center for Environmental Information in the Netherlands: A Review. *Environmental Management* 13(3):145-149.

Adrianto, L. and Y. Matsuda. 2004. Study on Assessing Economic Vulnerability of Small Island Regions. *Environment, Development and Sustainability* 6:317-336.

Alabaster J.S., and R. Lloyd. 1982. Water Quality Criteria for Freshwater Fish. 2nd Edition. Food and Agriculture Organization of the United Nations. London: Butterworth's.

Albert, M. and J.D. Parke. 1991. Indices of Environmental Quality: The Search for Credible Measures. *Environmental Impact Assessment Review* 11(2):95-101.

Alfieri, A. and P. Bartelmus. 1998. "Implementation of Environmental Accounting: Towards an Operational Manual." In Uno, K. and P. Bartelmus (Ed). *Environmental Accounting in Theory and Practice.* Dordrecht: Kluwer Academic Publishers.

Alfsen, K.H. and V.S. Hans. 1993. Environmental Quality Indicators: Background, Principles and Examples from Norway. *Environmental and Resource Economics* 3:415-435.

Allison, P.D. 1999. Multiple Imputation for Missing Data: A Cautionary Tale. Philadelphia: University of Pennsylvania.

American Public Health Association (APHA). 1995. Standard Methods for the Examination of Water and Wastewater, 19th edition. Washington, DC: APA.

Angelsen, A. and Wunder, S. 2003. Exploring the Forest – Poverty Link: Key Concepts, Issues and Research Implications. Bogor, Indonesia: Center for International Forestry Research.

Asian Development Bank. 1997. Emerging Asia: Changes and Challenges. Manila: Asian Development Bank.

Australian Agency for International Development (AusAID). 2003. Environmental Management Guide for Australia's Aid Program 2003. Available at: www.ausaid.gov.au/publications/pdf/Environmental_Management_Guide.pdf.

Australian and New Zealand Environment and Conservation Council (ANZECC). 1992. Australian Water Quality Guidelines for Fresh and Marine Waters. Canberra: ANZECC.

Ayres, R.U., J. Bergh and J.M. Gowdy. 2000. Viewpoint: Weak Versus Strong Sustainability. Fontainebleau, France: INSEAD.

Azzone, G. and M. Raffaella. 1994. Measuring Strategic Environmental Performance. *Business Strategy and the Environment* 3:114.

Backhaus, R., M. Bock and S. Weiers. 2002. The Spatial Dimension of Landscape Sustainability. *Environment, Development and Sustainability* 4:237-251.

Balmford, A., L. Bennun, B. Brink, D. Cooper, I.M. Côté, P. Crane, A. Dobson, N. Dudley, I. Dutton, R.E. Green, R.D. Gregory, J. Harrison, E.T. Kennedy, C. Kremen, N. Leader-Williams, T.E. Lovejoy, G. Mace, Robert May, P. Mayaux, P. Morling, J. Phillips, K. Redford, T.H. Ricketts, J.P. Rodríguez, M. Sanjayan, P.J. Schei, A.S. v. Jaarsveld and B.A.Walther. 2005. The Convention on Biological Diversity's 2010 Target. *Science* 307:212-213.

Bandura, R. 2005. Measuring Country Performance and State Behavior: A Survey of Composite Indices. New York: Office of Development Studies, United Nations Development Programme (UNDP).

Barnard, J., W. Myers, J. Pearce, F. Ramsey, M. Sissenwine and W. Smith. 1985. Surveys for Monitoring Changes and Trends in Renewable Resources: Forests and Marine Fisheries. *The American Statistician* 39(4, Part 2):363-373.

Barnett, V. 1998. Discussion at the Meeting on 'Alternatives to Economic Statistics as Indicators of National Well-Being.' *Journal of the Royal Statistical Society, Series A (Statistics in Society)* 161(3):303-311.

Barnett, V. and K.F. Turkman (Ed.). 1994. Statistics for the Environment: Water Related Issues. Chichester: Wiley.

Barrett, J., R. Birch, N. Cherrett and T. Wiedmann. 2005. Exploring the Application of the Ecological Footprint to Sustainable Consumption Policy. *Journal of Environmental Policy & Planning* 7(4):303-316.

Barton, B.A. & B.R. Taylor. 1996. Oxygen Requirements of Fishes in Northern Alberta Rivers with a General Review of the Adverse Effects of Low Dissolved Oxygen. *Water Qual. Res. J. Can*. 31:361–409.

Bass, S. 2001. "Policy Inflation, Capacity Constraints: Can Criteria and Indicators Bridge the Gap?" In Raison, R.J., A.G. Brown and D.W. Flinn (Eds). *Criteria and Indicators for Sustainable Forest Management.* IUFRO Research Series; 7. Wallingford, U.K.: CABI Publishing.

Booysen, F. 2002. An Overview and Evaluation of Composite Indices of Development. *Social Indicators Research* 59:115-151.

Bossel, H. 1999. Indicators for Sustainable Development: Theory, Method, Applications. Winnipeg: International Institute for Sustainable Development.

Boumans, M. 2001. Fisher's Instrumental Approach to Index Numbers. *Supplement to the History of Political Economy* 33:313-344.

Brand, S. 2007. Whole Earth Comes Into Focus. *Nature* 450(6):797.

Brekke, K.A. 1997. Economic Growth and the Environment: On the Measurement of Income and Welfare. Cheltenham: Edward Elgar.

Briggs, D., C. Corvalan and M. Nurminen (Ed). 1996. Linkage Methods for Environment and Health Analysis: General Guidelines. Geneva: Office of Global and Integrated Environmental Health, World Health Organization.

Briggs, D.J. 1995. Environmental Statistics for Environmental Policy Data Genealogy and Quality. *Journal of Environmental Management* 44:39-54.

Bringezu, S. and F. Schmidt-Bleek. 1992. Proposal for a Standard Method of Ecobalancing Procedures: Compulsary Categories of Ecological Indicators. *Fresenius Environment Bulletin* 1:488-493.
Buck, L.E., J.C. Milder, T.A. Gavin, and I. Mukherjee. 2006. Understanding Ecoagriculture: A Framework for Measuring Landscape Performance, Discussion Paper Number 1. Washington, D.C: Ecoagriculture Partners.
Buckland, S.T., A.E. Magurran, R.E. Green and R.M. Fewster. 2005. Monitoring Change in Biodiversity Through Composite Indices. *Philosophical Transactions of the Royal Society* 360:243-254.
Butchart, S.H.M., A.J. Stattersfield, L.A. Bennun, S.M. Shutes, H.R. Akcakaya, J.E.M. Baillie, S.N. Stuart, C.Hilton-Taylor and G.M. Mace. 2004. Measuring Global Trends in the Status of Biodiversity: Red List Indices for Birds. *PLoS Biology* 2(12):2294-2304.
Canadian Council of Ministers of the Environment (CCME). 1999. Canadian Environmental Quality Guidelines. Winnipeg: CCME.
Castañeda, F. 2001. "Collaborative Action and Technology Transfer as Means of Strengthening the Implementation of National-level Criteria and Indicators." In Raison, Brown and Flinn (eds): *Criteria and Indicators for Sustainable Forest Management.* IUFRO Research Series; 7.
Castillo, E.D., D.C. Montgomery and D.R. McCarville. 1996. Modified Desirability Functions for Multiple Response Optimization. *Journal of Quality Technology* 28(3):337-344.
CCME. 2001. "Canadian Water Quality Guidelines for the Protection of Aquatic Life: CCME Water Quality Index 1.0, User's manual". In: Canadian Council of Ministers of the Environment. 1999. Canadian Environmental quality guidelines. Winnipeg, Manitoba. Available at: http://www.ccme.ca/assets/pdf/wqi_usermanualfctsht_e.pdf.
Center for Environmental Systems Research. 2008. Website. Available at: http://www.usf.uni-kassel.de/usf/archiv/daten/irriareamap.en.htm.
Center for International Earth Science Information Network (CIESIN). 2000. Gridded Population of the World, Version 2 alpha. Palisades, NY: Columbia University, International Food Policy Research Institute (IFPRI), World Resources Institute (WRI). Data available at: http://sedac.ciesin.org/plue/gpw.
Chapman, D. (Ed.) 1992. Water Quality Assessments: A Guide to the Use of Biota, Sediments and Water in Environmental Modeling. London: Published on behalf of UNESCO, WHO and UNEP. E & FN Spon.
Chapman, D. (Ed.) 1996. Water Quality Assessments. A Guide to the Use of Biota, Sediments and Water in Environmental Monitoring. Second Edition. Published on behalf of UNESCO, WHO, and UNEP. London: Chapman and Hall.
Cheng, P.E. 1994. Nonparametric Estimation of Mean Functionals With Data Missing at Random. J*ournal of the American Statistical Association (JASA)* 89(425):81-87.
Chess, C., B.B. Johnson and G. Gibson. 2005. Communicating About Environmental Indicators. *Journal of Risk Research* 8(1):63-75.
Cochrane, M.A., A. Alencar, M.D. Schulze, C.M. Souza, D.C. Nepstad, P. Lefebvre and E.A. Davidson. 1999. Positive Feedbacks in the Fire Dynamic of Closed Canopy Tropical Forests. *Science* 284:1832–35.
Cointreau, S. 2007. Draft Discussion Paper on Livestock Waste Management Issues. Unpublished.
Colfer, C.J.P., Kaimowitz, D., Kishi, M., and D. Sheild. 2006. Forests and Human Health in the Tropics: Some Important Connections. *Unasylva* 224:3-10.
Collaborative Partnership on Forests. 2006. Streamlining forest-related reporting – Joint information framework.
Commission for Environmental Cooperation. 2000. Guidance Document. Improving Environmental Performance and Compliance: 10 Elements of Effective Environmental Management Systems. Available at: http://www.epa.gov/region3/innovation/ems-guide.htm.
Comolet, A. 1991. How OECD Countries Respond to State-of-the Environment Reports. *International Environmental Affairs* 4(1):3.
Comprehensive Assessment of Water Management in Agriculture. 2007. Water for Food, Water for Life: A Comprehensive Assessment of Water Management in Agriculture. London: Earthscan and Colombo: International Water Management Institute.
Cook, S., H. Turral and F. Gichuki. 2006. Draft Version: Working Paper on Water Productivity Paper 1. CGIAR Challenge Program on Water and Food.
Copas, A.J. and V.T. Farewell. 1998. Dealing with Non-Ignorable Non-Response by Using an 'Enthusiasm-to-Respond' Variable. *Journal of the Royal Statistical Society, Series A (Statistics in Society)* 161(3):385-396.
Corbier-Nicolliere, T., Y. Ferrari, C. Jemelin and O. Jolliet. 2003. Assessing Sustainability: An Assessment Framework to Evaluate Agenda 21 Actions at the Local Level. *International Journal of Sustainable Development and World Ecology* 10:225-237.
Cormack, R.M. 1988. Statistical Challenges in the Environmental Sciences: A Personal View. *Journal of the Royal Statistical Society, Series A (Statistics in Society)* 151(1):201-210.
Correll D.L. 1998. The Role of Phosphorus in the Eutrophication of Receiving Waters: A Review. ***J. Environ.** Qual*. 27:261-266.
Costanza, R. and W. Lisa. 1991. Ecological Economics. *Business Economics* 26:45-48.
Crump, A. 1993. Dictionary of Environment and Development: People, Places, Ideas and Organizations. Cambridge, MA: MIT Press.
Cude C.G. 2001. Oregon Water Quality Index: A Tool for Evaluating Water Quality Management Effectiveness. J*ournal of the American Water Research Association* 37:125–137.
Cui, Y., L. Hens, Y. Zhu and J. Zhao. 2004. Environmental Sustainability Index of Shandong Province, China. *International Journal of Sustainable Development and World Ecology* 11:227-234.

Custance, J. and H. Hillier. 1998. Statistical Issues in Developing Indicators of Sustainable Development. *Journal of the Royal Statistical Society, Series A (Statistics in Society)* 161(3):281-290.
Daily, G.C., P.R. Ehrlich, G.A. Sanchez-Azofeifa. 2001. Countryside Biogeography: Use of Human-Dominated Habitats by the Avifauna of Southern Costa Rica. *Ecological Applications* 11(1):1-13.
Dasgupta, S., A. Mody, S. Roy and D. Wheeler. 1995. Environmental Regulation and Development: A Cross-Country Empirical Analysis. Policy Research Working Paper Series. 1448. Washington D.C.: World Bank.
Dauber, J., M. Hirsch, D. Simmering, R. Waldhardt, A. Otte, and V. Wolters. 2003. Landscape Structure as an Indicator of Biodiversity: Matrix Effects on Species Richness. *Agriculture, Ecosystems and Environment* 98:321-29.
Davidson, E.A. 1999. Positive Feedbacks in the Fire Dynamic of Closed Canopy Tropical Forests. *Science* 284:1832–35.
Davis J.C. 1975. Minimal Dissolved Oxygen Requirements of Aquatic Life with Emphasis on Canadian species: A Review. *J. Fish. Res. Board Canada* 32:2295-2332.
Demirtas, H. 2004. Modeling Incomplete Longitudinal Data. *Journal of Modern Applied Statistical Methods* 3(2):305-321.
Department of Sustainability and Environment. 2005. Index of Stream Condition: The Second Benchmark of Victorian River. Melbourne: Victorian Government Department of Sustainability and Environment. Available at: www.vicwaterdata.net.
Derringer, G.C. and D. Suich. 1980. Simultaneous Optimization of Several Response Variables. *Journal of Quality Technology* 12(4):214-219.
Derry A.M., E.E. Prepas, P.D.N. Hebert. 2003. A Comparison of Zooplankton Communities in Saline Lakewater with Variable Anion Composition. *Hydrobiologia* 505:199-215.
Diewert, E. 2004. Index Number Theory: Past Progress and Future Challenges. Vancouver, BC: SSHRC Conference on Price Index Concepts and Measurement, June 30 - July 3, 2004.
Divisia, F. 1926. L'indice Monetaire et la Theorie de la Monnaie. Paris: Societe Anonyme du Recueil Sirey.
Dodds, W.K. 2003. Misuse of Inorganic N and Soluble Reactive P Concentrations to Indicate Nutrient Status of Surface Waters. *Journal of the North American Benthological Society* 22:171-181.
Dodds, W.K., J.R. Jones, and E.B. Welch. 1998. Suggested Classification of Stream Trophic State: Distributions of Temperate Stream Types by Chlorophyll, Total Nitrogen, and Phosphorus. *Water Research* 32:1455-1462.
Dodds, Walter K. 2002. Freshwater Ecology: Concepts and Environmental Applications. Orlando: Academic Press.
Döll, P. and S. Siebert. 2000. Digital Global Map of Irrigated Areas. *CID Journal* 49(2):55-66.
Drasson, S., J.J. Corhrssen and Morrison (ed.). 1987. Environmental Monitoring, Assessment and Management: the Agenda for Long-term Research and Development. Westport, CT: Praeger Publishers.
Duinker, P.N. and M.P. Ronald. 1994. Measuring Up: Indicators of Forest Sustainability. Thunder Bay: Lakehead University School of Forestry.
Dumanski, J., S. Gameda and C. Pieri. 1998. Indicators of Land Quality and Sustainable Land Management. Washington, D.C.: World Bank.
Efron, B. 1994a. Missing Data, Imputation, and the Bootstrap. *Journal of the American Statistical Association (JASA).* 89(426):463-475.
Efron, B. 1994b. Rejoinder. *Journal of the American Statistical Association (JASA)*. 89(426).
Ellis, R.N., P.M. Kroonenberg, B.D. Harch and K.E. Basford. 2006. Non-Linear Principal Components Analysis: An Alternative Method for Finding Patterns in Environmental Data. *Environmetrics* 17:1-11.
Engleman, R., R.P. Cincotta, B. Dye, T. Gardner-Outlaw, and J. Wisnewski. 2000. People in the Balance. Washington, D.C.: Population Action International.
Environment Canada. 1991. A Report on Canada's Progress Toward a National Set of Environmental Indicators. State of the Environment Report 91-1. Ottawa: Supply & Services.
Estrada, A. and R. Coates-Estrada. 2001. Bat Species Richness in Live Fences and in Corridors of Residual Rain Forest Vegetation at Los Tuxtlas, Mexico. *Ecography* 24(1):94-102.
Esty, D.C. 2001. Toward Data-Driven Environmentalism: The Environmental Sustainability Index. *The Environmental Law Reporter* 31(5):10603-10613.
Esty, D.C. 2002. "Why Measurement Matters." In Esty D.C. and P. Cornelius. *Environmental Performance Measurement: The Global 2001-2002 Report.* New York: Oxford University Press.
Esty, D.C., M. Levy, T. Srebotnjak and A. de Sherbinin. 2005. The 2005 Environmental Sustainability Index: Benchmarking National Environmental Stewardship. New Haven: Yale Center for Environmental Law and Policy.
Esty, D.C., M.A. Levy, T. Srebotnjak, A. de Sherbinin, C.H. Kim and B. Anderson. 2006. Pilot 2006 Environmental Performance Index. New Haven: Yale Center for Environmental Law & Policy.
European Commission, Directorate-General for the Environment. 2007. European Union Environment-Related Indicators 2007: Measuring Environmental Progress. Brussels, Belgium: European Commission.
European Digital Archive on Soil Maps of the World (EuDASM). 2006. European Digital Archive on Soil Maps of the World. Joint Research Center. Available at: http://eusoils.jrc.it/esdb_archive/EuDASM/EUDASM.htm.
European Environment Agency (EEA). 2006. Directive 2006/44/EC of 6 September 2006 on the Quality of Fresh Waters Needing Protection or Improvement in Order to Support Fish Life. *Official Journal of the European Union* L 264/31.
European Environment Agency. 2004. EEA Signals 2004 - A European Environment Agency Update on Selected Issues. Copenhagen: European Environment Agency.
European Environment Agency. 2004. EEA Strategy 2004-2008. Copenhagen: European Environment Agency.
European Environment Agency. 2008. Ozone Pollution Across Europe. Website. Available at: http://www.eea.europa.eu/maps/ozone.

European Environmental Agency. 2008. Indicators: Air Quality. Website. Available at: http://www.eea.europa.eu/themes/air_quality/indicators.
Ezzati, M., and D. M. Kammen. 2002. The Health Impacts of Exposure to Indoor Air Pollution from Solid Fuels in Developing Countries: Knowledge, Gaps, and Data Needs. *Environmental Health Perspectives* 110 (11):1057-1068.
Falkenmark, M, J. Lundqvist, and C. Widstrand. 1989. Macro-Scale Water Scarcity Requires Micro-Scale Approaches: Aspects of Vulnerability in Semi-Arid Development. *Natural Resources Forum* 13(4):258-267.
Falkenmark, M. 1990. Global Water Issues Confronting Humanity. *Journal of Peace Research* 27(2)177-190.
Falkenmark, M. 1991. Living at the Mercy of the Water Cycle. Water Resources in the Next Century. Stockholm Water Symposium Proceedings. 12-15 August 1991, Stockholm, Sweden.
Falkenmark, M. and G. Lindh. 1974. Impact of Water Resources on Population. Paper submitted by the Swedish Delegation to the UN World Population Conference, Bucharest, 19-30 August 1974.
Färe, R., S. Grosskopf and F. Hernandez-Sancho. 2004. Environmental Performance: An Index Number Approach. *Resource and Energy Economics* 26:343-352.
Fehr, M., K.A. Sousa, A.F.N. Pereira and L.C. Pelizer. 2004. Proposal of Indicators to Assess Urban Sustainability in Brazil. *Environment, Development and Sustainability* 6:355-366.
Fonkych, K. 2005. Assessment of Environmental Kuznets Curves and Socioeconomic Drivers in IPCC's SRES Scenarios. *The Journal of Environment and Development* 14(1):27-47.
Food and Agriculture Organization (FAO). 1986. Yield Response to Water. Irrigation and Drainage Paper 33. Rome, Italy: FAO.
Food and Agriculture Organization (FAO). 1998. Crop Evapotranspiration - Guidelines for Computing Crop Water Requirements. Irrigation and Drainage Paper 56. Rome, Italy: FAO Available at: http://www.fao.org/docrep/X0490E/x0490e00.htm.
Food and Agriculture Organization (FAO). 2002. World Agriculture: Towards 2015/2030. An FAO perspective. Available at: http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/005/y4252e/y4252e00.htm.
Food and Agriculture Organization (FAO). 2008. Aquastat. Available at: http://www.fao.org/nr/water/aquastat/main/index.stm.
Food and Agriculture Organization. 2000. Global Forest Resources Assessment 2000. Rome: FAO.
Food and Agriculture Organization. 2007. State of the World's Forests 2007. Rome: FAO.
Food and Agriculture Organization. 2006. Global Forest Resources Assessment 2005. Rome: FAO.
Food and Agriculture Organization. 2006. Responsible Management of Planted Forests: Voluntary Guidelines. Planted Forests and Trees Working Paper 37/E. Rome: FAO.
Food and Agriculture Organization. 2007. Biological Diversity in Food and Agriculture – Forest Biodiversity. Available at: http://www.fao.org/biodiversity/Forests_eco_en.asp.
Food and Agriculture Organization. 2007. Roles of Forests in Climate Change. Available at: http://www.fao.org/forestry/site/climatechange/en/.
Forman, R.T.T. and S.K. Collinge. 1996. "The "Spatial Solution" To Conserving Biodiversity in Landscapes and Regions." In R.M. DeGraaf and R.I. Miller (Eds). *Conservation of Faunal Diversity in Forested Landscapes*. London: Chapman and Hall.
Fraiture, C. de. 2007. Integrated Water and Food Analysis at the Global and Basin Level. An Application of WATERSIM. *Water Resources Management* 21:185-198.
Frankenberger, T.R. and D.M. Goldstein. 1990. Food Security, Coping Strategies and Environmental Degradation. *Arid Lands Newsletter* 30:21-27.
Freeman, A.M. 2003. The Measurement of Environmental and Resource Values. Theory and Methods. 2nd ed. Washington D.C.: RFF Press.
Freudenberg, M. 2003. Composite Indicators of Country Performance: A Critical Assessment. DSTI/IND(2003)5. Paris: Directorate For Science, Technology And Industry, Committee On Industry And Business Environment, Organisation for Economic Co-operation and Development (OECD).
Frisvold, G.B. 2000. Data, Information, and Rural Environmental Policy: What Will the Next Ten Years Bring? *Review of Agricultural Economics* 22(1):237-244.
Fromm, P. 1980. A Review of Some Physiological and Toxicological Responses of Freshwater Fish to Acid Stress. *Env. Biol. Fish* 5:79-93.
Gatzer, P.E. and R.C. McMillan. 1972. The Use of Experimental Design and Computerized Data Analysis in Elastomer Development Studies. Cincinatti, Ohio: Division of Rubber Chemistry, American Chemical Society, Fall Meeting.
Gerber, P., P. Chilonda, G. Franceschini and H. Menzi. 2004. Geographical Determinants and Environmental Implications of Livestock Production Intensification in Asia. *Bioresource Technology* 96:13.
Giampietro, M., K. Mayumi and S.G.F. Bukkens. 2001. Multiple-Scale Integrated Assessment of Societal Metabolism: An Analytical Tool to Study Development and Sustainability. *Environment, Development and Sustainability* 3:275-307.
Gilbert, R.O. 1987. Statistical Methods for Environmental Pollution Monitoring. New York: Van Nostrand Reinhold Co.
Gilpin, A. 1976. Dictionary of Environment Terms. London: Routledge and Paul Kregan.
Glasby, G.P. 2003. Sustainable Development: The Need for a New Paradigm. *Environment, Development and Sustainability* 4:333-345.
Gleick, P.H. 1990. "Vulnerability of Water Systems." In P.E. Waggoner (Ed). *Climate Change and U.S. Water Resources*. New York: John Wiley and Sons, Inc.
Gleick, P.H. 1996. Basic Water Requirements for Human Activities: Meeting Basic Needs. *Water International* 21:83-92.
Gleick, P.H. 1998. The World's Water 1998-1999. Island Press, Washington, D.C.
Gleick, P.H. 2006. The World's Water 2006-2007: The Biennial Report on Freshwater Resources. Island Press, Washington, D.C. (see also, previous versions.)

Global Environmental Management Initiative. 1998. Measuring Environmental Performance: A Primer and Survey of Metrics in Use. Washington D.C.: Global Environmental Performance Measurement Initiative.
Gosselin, P., D. Belanger, J.-F. Bebeault and A. Webster. 1993. Indicators for a Sustainable Society. *Canadian Journal of Public Health* 84:197-200.
Grafton, R.Q. and S. Knowles. 2004. Social Capital and National Environmental Performance: A Cross-Sectional Analysis. *Journal of Environment & Development* 13(4):336-370.
Grainger, A. 2007. Difficulties in Tracking the Long-Term Global Trend in Tropical Forest Area. *Proceedings of The National Academy of Sciences* 105(2):818-823.
Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) (1990). The State of the Marine Environment. Oxford, UK: Blackwell Scientific Publishers.
Gunther, O. 1998. Environmental Informantion Systems. Berlin: Springer Verlag.
Gurka, M.J. 2006. Extending the Box-Cox Transformation to the Linear Mixed Model. *Journal of the Royal Statistical Society, Series A (Statistics in Society)* 169(2):273-288.
Guttorp, P. 2000. Environmental statistics. *Journal of the American Statistical Association (JASA)* 95(449):289-292.
Haas, P.M. and H. Hveem, (ed.) 1994. Complex Cooperation: Institutions and Processes in International Resource Management. Oslo: Scandanavian University Press.
Haas, P.M., R.O. Keohane and M.A. Levy. 1993. Institutions for the Earth: Sources of Effective International Environmental Protection. Cambridge, MA: MIT Press.
Hahn, G. and R. Hoerl. 1998. Key Challenges for Statisticians in Business and Industry. *Technometrics* 40(3):195-200.
Hajer, M.A. 1992. "The Politics of Environment Performance Reviews: Choices in Design." In Lykke, E. (Ed). *Achieving environmental goals: the concept and performance of environmental performance review.* London: Belhaven Press.
Hajjar, R., D.I. Jarvis., B. Gemmill-Herrren. 2007. The Utility of Crop Genetic Diversity in Maintaining Ecosystem Services. *Agriculture, Ecosystems and Environment.* 123:261-270.
Hall, B. and M.L. Kerr. 1991. Green Index: A State-By-State Guide to the Nation's Environmental Health. Washington, D.C.: Island Press.
Hamilton, K. 2003. Sustaining Economic Welfare: Estimating Changes in Total and Per Capita Wealth. *Environment, Development and Sustainability* 5:419-436.
Hammond, A., A. Adriaanse, E. Rodenburg, D. Bryant and R. Woodward. 1995. Environmental Indicators: A Systematic Approach to Measuring and Reporting on Environmental Policy Performance in the Context of Sustainable Development. Washington D.C.: World Resources Institute.
Hardi, P. and L. Pinter. 1994. Measuring Sustainable Development Performance: Canadian Initiatives: First Survey. Winnipeg: International Institute for Sustainable Development.
Harper, J.L. and D.L. Hawksworth. 1994. Biodiversity: Measurement and Estimation. *Phisophical Transactions of the Royal Society of London* 345:5-12.
Harrington, J. 1965. The Desirability Function. *Industrial Quality Control* 21(10):494-498.
Hart, B.T., P. Bailey, R. Edwards, K. Hortle, K. James, A. McMahon, C. Meredith, and K. Swadling. 1991. A Review of the Salt Sensitivity of the Australian Freshwater Biota. *Hydrobiologia* 210:105-144.
Harvey, C. 2007. "Designing Agricultural Landscapes for Biodiversity Conservation." In Scherr, S.J. and J.A. McNeely, eds. *Farming with Nature: The Science and Practice of Ecoagriculture*. Washington, D.C.: Island Press.
Hassan, R.M. 2003. Measuring Asset Values and Flow Benefits of Non-Traded Produvcts and Ecosystems Services of Forest and Woodland Resources in South Africa. *Environment, Development and Sustainability* 5:403-418.
Hastings, P. and C. Boonralasa. 1990. Integrated Information for Natural Resource Management. The 1990 TDRI year-end conference. Chong Buri, Thailand: Thailand Research Institute.
Henderson, H. 1990. Beyond Economics: New Indicators for Culturally Specific, Sustainable Development. *Development* 3/4:60-68.
Hendrey, G.R., K. Baalsrud, T.S. Traaen, M. Laake, G. Raddum. 1976. Acid Precipitation: Some Hydrobiological Changes. *Ambio* 5-6:224-227.
Hendriks, M.M., J.H. deBoer, A.K. Smilde and D.A. Doornbos. 1992. Multicriteria Decisionmaking. *Chemometrics and Intelligent Laboratory Systems* 16:175-191.
Herman, B. 2004. How Well Do Measurements of an Enabling Domestic Environment for Development Stand Up? g242004UNCTAD. Geneva: UNCTAD.
Heyes, C., W. Schöpp, M. Amann, I. Bertok, J. Cofala, F. Gyarfas, Z. Klimont, M. Makowski and S. Shibayev. 1997. A Model for Optimizing Strategies for Controlling Ground-Level Ozone in Europe (Interim Report). Laxenburg: International Institute for Applied Systems Analysis.
Hietala-Koivu, R., T. Jarvenpaa, and J. Helenius. 2004. Value of Semi-Natural Areas as Biodiversity Indicators in Agricultural Landscapes. *Agriculture, Ecosystems & Environment* 101:9-19.
Hill, M.O. 1973. Diversity and Evenness: A Unifying Notation and its Consequences. *Ecology* 54:427-432.
Holmgren, P. & L-G. Marklund. 2007. "National Forest Monitoring Systems - Purposes, Options and Status." In Freer-Smith, P.H., M.S.J. Broadmeadow & J.M. Lynch. (Eds). *Forestry and Climate Change*. Wallingford, U.K.: CAB International.
Hondraki-Birbili, C. and N.J.D. Lucas. 1996. A Novel Methodology for Environmental Policy Analysis - The Concept of Environmental Activity Elasticities and an Application to the CAP. *Journal of Environmental Management* 46:255-269.
Hope, C. and J. Parker. 1991. A Pilot Environmental Index for the United Kingdom: Results for the Last Decade. *Statistical Journal of the United Nations* 8:85-107.

Horowitz, L.W., Walters, S., Mauzerall, D.L., et al. 2003. A Global Simulation of Tropospheric Ozone and Related Tracers: Description and Evaluation of MOZART, Version 2. *Journal of Geophysical Research* 108:D24.
Hortensius, D. and S. Nortcliff. 1991. International Standardization of Soil Quality Measurement Procedures for the Purpose of Soil Protection. *Soil Use and Management* 7(3):163-166.
Hurd, B., J. Smith, and R. Jones. 1999. Water and Climate Change: A National Assessment of Regional Vulnerability. Boulder, Colorado: Stratus Consulting.
Hurlbert, S.H. 1971. The Nonconcept of Species Diversity: A Critique and Alternative Parameters. *Ecology* 52(4):577-586.
Hutchinson, G.E. 1953. The Concept of Pattern in Ecology. *Proceedings of the Academy of Natural Sciences of Philadelphia* 105:1-12.
Hutchinson, G.E. 1959. Homage to Santa Rosalia, or Why Are There So Many Kinds of Animals?. *American Naturalist* 93:145-159.
Ibrahim, J.G., M.-H. Chen, S.R. Lipsitz and A.H. Herring. 2005. Missing-Data Methods for Generalized Linear Models: A Comparative Review. *Journal of the American Statistical Association (JASA)* 100:332-346.
Index of Human Insecurity (IHI). 2000. AVISO Issue No. 6.
Inhaber, H. 1976. Environmental Indices. London: Wiley & Sons.
International Energy Agency. 1976. Indicators of Energy Use and Efficiency. Paris: Organization for Economic Co-operation and Development.
International Institute for Sustainable Development (IISD). 1993. Indicators for the Sustainable Management of Tourism. Winnipeg: IISD.
International Institute for Sustainable Development (IISD). 2002a. Compendium: A Global Directory to Indicator Initiatives. Winnipeg: IISD. Available at: http://www.iisd.org/measure/compendium/.
International Institute for Sustainable Development (IISD). 2002b. IISDnet, Measurement and Indicators for Sustainable Development. Winnipeg: IISD. Available at: http://www.iisd.org/measure/.
International Network for Environmental Compliance and Enforcement (INECE). 2005. Environmental Enforcement Indicators. Available at: http://www.inece.org/forumsindicators_introduction.html#_edn1.
International Organization for Standardization. 2004. ISO14001 Standards and Environmental Management Systems. Available at: http://www.iso14000.com.
International Union of Local Authorities (IULA). 1991. Glossary of Environmental Terms. Istanbul: IULA.
International Water Management Institute. 2008. Water and Climate Atlas. Available at: http://www.iwmi.cgiar.org/WAtlas/atlas.htm.
Irland, L.C. 2006. "Perspectives on the National Report on Sustainable Forests--2003". In Society of American Foresters, *Perspectives on America's forest.* Available at: http://www.safnet.org/periodicals/multipleperspectives.
Jackson, D. and L. Jackson. 2002. The Farm as Natural Habitat: Reconnecting Food Systems with Ecosystems. Washington, D.C.: Island Press.
Jacobs, R., P. Smith and M. Goddard. 2004. Measuring Performance: An Examination of Composite Performance Indicators. CHE Technical Paper Series. 29. York, U.K.: Centre for Health Economics, University of York.
Jessenberger, J. and C. Weihs. 2004. Desirability to Characterize Process Capability. *Technical Report-Reihe des Sonderforschungsbereichs* 475:73/04. Dortmund: Dortmund University.
Jørgensen, S.E., R. Costanza and F.-L. Xu. 2005. Handbook of Ecological Indicators for Assessment of Ecosystem Health. Boca Raton, FL: CRC Press.
Karkkainen, B.C. 2001. Information as Environmental Regulation: TRI and Performance Benchmarking, Precursor to a New Paradigm? *Georgetown Law Journal* 89(257).
Karlsson, S. 2002. "The North-South Knowledge Divide: Consequences for Global Environmental Governance." In Esty, D.C., and M. Ivanova (Ed). *Global Environmental Governance; Options and Opportunities*. New Haven: Yale Center for Environmental Law & Policy.
Katz, M. and D. Thornton. 1997. Environmental Management Tools on the Internet: Accessing the World of Environmental Information. Delray Beach: St. Lucie Press.
Kaufman, L. and P.J. Rousseeuw. 1990. Finding Groups in Data: An Introduction to Cluster Analysis. Wiley Series in Probability and Mathematical Statistics. 1st ed. New York: John Wiley & Sons, Inc.
Keith, L.H. 1991. Environmental Sampling and Analysis: A Practical Guide. Chelsea: Lewis Publishers Inc.
Khan, F., T. Husain, and A. Lumb. 2003. Water Quality Evaluation and Trend Analysis in Selected Watersheds of the Atlantic region of Canada. *Environmental Monitoring and Assessment* 88:221-242.
King J.A., R.I. Bradley, R. Harrison. 2005. Current Trends of Soil Organic Carbon in English Arable Soils. *Soil Use and Management* 21 (2), 189–195.
Kjellstrom, T. and C. Corvalan. 1995. Frameworks for the Development of Environmental Health Indicators. *World Health Statistics Quarterly* 48(2):144-154.
Kolsky, P.J. and U.J. Blumenthal. 1995. Environmental Health Indicators and Sanitation-Related Disease in Developing Countries: Limitations to the Use of Routine Data Sources. *World Health Statistics Quarterly* 48(2):132-139.
Kong, A., J.S. Liu and W.H. Wong. 1994. Sequential Imputations and Bayesian Missing Data Problems. *Journal of the American Statistical Association (JASA)* 89(425):278-288.
Kovacs, M. 1992. Biological Indicators in Environmental Protection. New York: Elis Harwood.
Krajnc, D. and P. Glavic. 2005. A Model for Integrated Assessment of Sustainable Development. *Resources, Conservation and Recycling* 43:189-208.

Kreisel, W.E. 1984. Representation of the Environmental Quality Profile of a Metropolitan Area. *Environmental Monitoring and Assessment* 4:15-33.

Kriz, M. 2005. Out of the Loop. *National Journal* 5 February 2005.

Krupnick, A.J. and D. Farrell. 1996b. Six Steps to a Healthier Ambient Ozone Policy. Discussion paper. 96-13. Washington D.C.: Resources for the Future.

Krupnick, A.J. and J.W. Anderson. 1996a. Revising the Ozone Standard Resources. Washington, D.C.: Resources for the Future.

Kuik, O. and H. Verbruggen, (Ed.). 1991. In Search of Indicators of Sustainable Development. Boston: Kluwer Academic Publishers.

Kunte, A., K. Hamilton, J. Dixon and M. Clemens. 1998. Estimating National Wealth: Methodology and Results. Washington, D.C.: World Bank.

Laycock, P.J. 1983. Interpreting Multivariate Data *Journal of the Royal Statistical Society, Series A (General)* 146(1):90-91.

LeBlond, J.B. and L.K. Duffy. 2001. Toxicity Assessment of Total Dissolved Solids in Effluent of Alaskan Mines Using 22-h Chronic Microtox® and Selenastrum Capricornutum Assays. *Sci. Tot. Environ*. 1-3:49-59.

Lee, I.-N., W.-C. Chang, Y.-J. Hong and S.-C. Liao. 2006. Discovering Meaningful Information From Large Amounts of Environment and Health Data to Reduce Uncertainties in Formulating Environmental Policies. *Journal of Environmental Management*. 81(4):434-440.

Leff, B., N. Ramankutty, and J.A. Foley. 2004. Geographic Distribution of Major Crops Across the World. Global Biogeochemical Cycles 18(1):16. Available at: http://www.sage.wisc.edu/download/majorcrops/majorcrops.html.

Leitmann, J. 1993a. Rapid Urban Environmental Assessment: Lessons from Cities in the Developing World. Discussion paper 14. Washington, D.C.: World Bank.

Leitmann, J. 1993b. Rapid Urban Environmental Assessment: Lessons from Cities in the Developing World: Tools and Outputs. Discussion paper 14. Washington, D.C.: World Bank.

Levett, R. 1998. Sustainability Indicators - Integrating Quality of Life and Environmental Protection. *Journal of the Royal Statistical Society, Series A (Statistics in Society)* 161(3):291-302.

Lindsey, J.K. 1999. Some Statistical Heresies. *The Statistician* 48:1-40.

Linster, M. and F. Zegel. 2003. Pollution Abatement and Control Expenditure in OECD Countries. ENV/EPOC/SE(2003)1. Paris: Organisation for Economic Co-operation and Development (OECD).

Liou, S.M., S.L. Lo, and S.H. Wang. 2004. A Generalised Water Quality Index for Taiwan. *Environmental Monitoring and Assessment* 96:35-32.

Lohani, B.N. 1980. An Air Pollution Index Based on Factor Analysis. *Journal of the IPHE* 3:31-34.

Lohani, B.N. and G. Todino. 1984. Water Quality Index of Chao Phraya River. *Journal of Environmental Engineering* 110(6):1163-1176.

Ludwig, J.A. and J.F. Reynolds. 1988. Statistical Ecology: A Primer on Methods and Computing. New York: Wiley & Sons.

Lumb, A., D. Halliwell, and T. Sharma. 2006. Application of the CCME Water Quality Index to Monitor Water Quality: A Case Study of the Mackenzie River Basin, Canada. *Environmental Monitoring and Assessment* 113:411-429.

Lumley, S. and P. Armstrong. 2004. Some of the Nineteenth Century Origins of the Sustainability Concept. *Environment, Development and Sustainability* 6:367-378.

Magurran, A.E. 1989. Diversidad Ecológica y su Medición. Barcelona: Vedra.

Marchettini, N., M. Panzieri, V. Niccolucci, S. Bastianoni and S. Borsa 2003. Sustainability Indicators for Environmental Performance and Sustainability Assessment of the Productions of Four Fine Italian Wines. *International Journal of Sustainable Development and World Ecology* 10:275-282.

Margalef, R. 1958. Information Theory in Ecology. *General Systematics* 3:36-71.

Mayer, A.L. 2007. Strengths and Weaknesses of Common Sustainability Indices for Multidimensional Systems. Environ.Int. (in press).

McGarry, D. 2006. A Methodology of Visual-Soil Field Assessment Tool to Support, Enhance, and Contribute to the LADA program. Rome, Italy: Food and Agriculture Organization.

Menhinick, E.F. 1964. A Comparison of Some Species-Individuals Diversity Indices Applied to Samples of Field Insects. *Ecology* 45:859-861.

Michael, G.Y. 1991. Environmental Databases: Design, Implementation and Maintenance. Chelsea: Lewis Publishers.

Michener, W.K., J.W. Brunt and S.G. Staffard. 1994. Environmental Information Management and Analysis: Ecosystem to Global Scales. London: Taylor and Francis.

Millard, E. 2007. "Restructuring the Supply Chain." in *Farming with Nature: the Science and Practice of Ecoagriculture, edited by* S.J. Scherr and J.A. McNeely. Island Press: Washington DC.

Millennium Challenge Corporation (MCC). 2005. Website. Available at: http://www.mca.gov/.

Millennium Ecosystem Assessment. 2005. Millennium Ecosystem Assessment Synthesis Reports. Island Press, Washington DC.

Millimet, D.L., J.A. List and T. Stengos. 2005. The Environmental Kuznets Curve: Real Progress or Misspecified Models? *The Review of Economics and Statistics* 85(4):1038-1047.

Minguillón, M.C., Querol, X., Alastuey, A. et al. 2007. PM10 Speciation and Determination of Air Quality Target Levels. A Case Study in a Highly Industrialized Area of Spain. *Sci Total Environ*. 372(2-3):382-96.

Mitchell, B. 2007. Private Protected Areas. IUCN World Commission on Protected Areas. Prepared as Part of a Series for a Summit on the IUCN categories in Andalusia, Spain, May 7-11 2007.

Moldan, B., S. Billharz and R. Matravers. 1997. Sustainability Indicators. New York: Wiley.

Mood, A.M., F.A. Graybill and D.C. Boes. 1974. Introduction to the Theory of Statistics. 3rd ed. Singapore: McGraw-Hill.

Munda, G. and M. Nardo. 2003. On the Methodological Foundations of Composite Indicators Used for Ranking Countries. Ispra, Italy: Joint Research Centre of the European Communities.

Murray, C.J.L. and A.D. Lopez. 1996. The Global Burden of Disease. Cambridge, MA: Harvard University Press.

Mutters, R. 1999. Statewide Potential Crop Yield Losses from Ozone Exposure. Sacramento: California Air Resources Board.

Nagels J.W., R.J. Davies-Colley, and D.G. Smith. 2001. A Water Quality Index for Contact Recreation in New Zealand. *Water Science and Technology* 43:285-292.

Nardo, M., M. Saisana, A. Saltelli and S. Tarantola. 2005a. Handbook on Constructing Composite Indicators: Methodology and User Guide. Directorate, OECD Statistics. OECD Statistics Working Paper Series. Paris: Organization for Economic Development and Co-operation (OECD).

Nardo, M., M. Saisana, A. Saltelli and S. Tarantola. 2005b. Tools for Composite Indicators Building. EUR 21682 EN. Ispra: Econometrics and Statistical Support to Antifraud Unit, Institute for the Protection and Security of the Citizen, Joint Research Centre (JRC).

Nas, P.J.M. and R. Jaffe. 2004. Informal Waste Management: Shifting the Focus from Problem to Potential. *Environment, Development and Sustainability* 6:337-353.

National Environment Protection Council (NEPC). 2005. National Environment Protection (Ambient Air Quality) Measure: Preliminary Work on Ozone for the Review of the Ambient Air Quality. Adelaide: NEPC.

National Geographic. 2001, 2006. EarthPulse: World of Water – Enough For All? 199:4. (See also, updated NG maps for water.)

Nelson, K.P. 2002. Generalized Linear Mixed Models: Development and Comparison of Different Estimation Methods. Doctoral Dissertation. Department of Statistics. Seattle: University of Washington.

Netherland Environment Assessment Agency. 2008. Website. Available at: http://www.mnp.nl/edgar/model/.

Niemeyer, D. 2002. Developing Indicators for Environmental Policy: Data-Driven and Theory-Driven Approaches Examined by Example. *Environmental Science & Policy* 5(2):91-103.

Nisbet, E. 2007. Cinderella Science. *Nature* 450(6):789-790.

Nychka, D. and L. Cox. 1998. Case Studies in Environmental Statistics. Berlin: Springer Verlag.

OECD Working Group on Environmental Information and Outlook. 2004. OECD Workshop on Material Flows and Related Indicators: Chair's Summary. ENV/EPOC/SE(2004)2. Paris: Organisation for Economic Co-operation and Development.

Oldeman, L.R. and E.M. Bridges. 1991. Global Assessment of Human Induced Soil Degradation. Wageningen: International Soil Reference and Information Centre.

Oppenheimer, C.H., D. Oppenheimer and W.B. Brogden (Ed.). 1976. Environmental Data Management. London: Wykeham Publications.

Organisation for Economic Co-operation and Development (OECD). Environmental Country Reviews. Available at: http://www.oecd.org/department/0,2688,en_2649_34307_1_1_1_1_1,00.html. Paris: OECD.

Organisation for Economic Co-operation and Development. 1993a. Indicators for the Integration of Environmental Concerns into Energy Policies. Monograph. Paris: Environment Directorate, OECD.

Organisation for Economic Co-operation and Development. 1993b. Indicators for the Integration of Environmental Concerns into Transport Policies. Monograph 42. Paris: Environment Directorate, OECD.

Organisation for Economic Co-operation and Development. 1993c. OECD Core Set of Indicators for Environmental Performance. Monograph. Paris: Environment Directorate, OECD.

Organisation for Economic Co-operation and Development. 1995. Environment Indicators: OECD Core Set. Paris: OECD.

Organisation for Economic Co-operation and Development. 1996. Environmental Performance in OECD Countries: Progress in the 1990s. Paris: OECD.

Organisation for Economic Co-operation and Development. 1997a. Better Understanding Our Cities: Role of Urban Indicators. Paris: OECD.

Organisation for Economic Co-operation and Development. 1997b. Environmental Indicators for Agriculture. Paris: OECD.

Organisation for Economic Co-operation and Development. 1997c. OECD Environmental Data Compendium 1997. Paris: OECD.

Organisation for Economic Co-operation and Development. 1997d. OECD Environmental Performance Review: A Practical Introduction. Monograph OECD/GD (97) 35. 60. Paris: OECD.

Organisation for Economic Co-operation and Development. 1997e. Transfrontier Movements of Hazardous Wastes 1992/1993: Statistics. 1997 edition. Paris: OECD.

Organisation for Economic Co-operation and Development. 1998. Towards Sustainable Development: Environmental Indicators. Paris: OECD.

Organisation for Economic Co-operation and Development. 2003. Environmental Performance Review of Austria. Paris: OECD.

Organisation for Economic Co-operation and Development. 2004a. Environmental Performance Review of Canada - Good Progress, Much to be Done. Paris: OECD.

Organisation for Economic Co-operation and Development. 2004b. Environmental Performance Review of Spain. Paris: OECD.

Organisation for Economic Co-operation and Development. 2004c. Environmental Performance Review of Sweden. Paris: OECD.

Organisation for Economic Co-operation and Development. 2005. Environmental Performance Review of France - A Positive but Demanding Assessment. Paris: OECD.

Organization for Economic Development and Co-operation (OECD). 2007. Environment Directorate. *OECD Key Environmental Indicators*. Paris: OECD.

Orwin, K.H. and D.A. Wardle. 2004. New Indices for Quantifying the Resistance and Resilience of Soil Biota to Exogenous Disturbances. *Soil Biology & Biochemistry* 36:1907-1912.

Ostrom, E. 1990. Governing the Commons: The Evolution of Institutions for Collective Action. 10th ed. New York: Cambridge University Press.

Ott, W.R. 1978. Environmental Indices: Theory and Practice. Ann Arbor: Science Publishers, Inc.

Ott, W.R. 1978. Environmental Indices: Theory and Practice. Ann Arbor: Ann Arbor Science.

Ott, W.R. 1995. Environmental Data and Statistics. Boca Raton: Lewis Publishers.

Park, T. and M.B. Brown. 1994. Models for Catgeorical Data With Nonignorable Nonresponse. *Journal of the American Statistical Association (JASA)* 89(425):44-52.

Parker, J. and C. Hope. 1992. The State of the Environment: A Survey of Reports from Around the World" *Environment* 34(1):39-45.

Parris, T.M. and R.W. Kates. 2003. Characterizing and Measuring Sustainable Development. *Annual Review of Environment and Resources* 28:559-586.

Patching Together a World View. 2007. *Nature* 450(7171):761.

Patil, G.P. and C. Taillie. 1982. Diversity as a Concept and a Measurement *Journal of the American Statistical Association (JASA)* 77(379):548-567.

Patil, G.P. and C. Taillie. 2004. Multiple Indicators, Partially Ordered Sets, and Linear Extensions: Multi-Criterion Ranking and Prioritization" *Environmental and Ecological Statistics* 11:199-228.

Pearce, D.W. and G. Atkinson. 1995. "Measuring Sustainable Development," in *The Handbook of Environmental Economics, edited by D.W. Bromley.* Oxford: Blackwell.

Peet, R.K. 1974. The measurement of species diversity. *Annual Review of Ecology and Systematics* 5:285-307.

Peet, R.K. 1975. Relative Diversity Indices. *Ecology* 56:496-498.

Peng, R.D., F. Dominici and T.A. Louis. 2006. Model Choice in Time Series Studies of Air Pollution and Mortality. *Journal of the Royal Statistical Society, Series A (Statistics in Society)* 169(2):179-203.

Pesce, S.F. and D.A. Wunderlin. 2000. Use of Water Quality Indices to Verify the Impact of Cordoba City (Argentina) on Suquia River. *Water Research* 34:2915-2926.

Peskin, H.M. 1998. "Alternative Resource and Environmental Accounting Approaches and their Contribution to Policy." In *Environmental Accounting in Theory and Practice.* Edited by K. Uno and Peter Bartelmus. Dordrecht: Kluwer Academic Publishers.

Peterka, J.J. 1972. Effects of Saline Waters Upon Survival of Fish Eggs and Larvae and Upon the Ecology of the Fathead Minnow in North Dakota. PB-223 017, National Technical Information Service, Springfield, Va. 22161.

Petersen, P.J. 1997. Indicators of Sustainable Development in Industrializing Countries. Bangi, Malaysia: Penerbit Universiti Kebangsaan.

Pfannkuch, M. and C.J. Wild. 2000. Statistical Thinking and Statistical Practice: Themes Gleaned from Professional Statisticians. *Statistical Science* 15(2):132-152.

Pielou, E.C. 1966. The Measurement of Diversity in Different Types of Biological Collections. *Journal of Theoretical Biology* 13:131-144.

Pielou, E.C. 1974. Population and Community Ecology. New York: Gordon and Breach.

Pielou, E.C. 1975. Ecological Diversity. New York: John Wiley & Sons.

Pieri, C., J. Dumanski, A. Hamblin and A. Young. 1995. Land Quality Indicators. Discussion paper 315. Washington, D.C.: World Bank.

Pinter, L. 1994. Measuring Sustainability: Bibliography and Indicator Matrices. Winnipeg: International Institute for Sustainable Development (IISD).

Pinter, L., P. Hardi and P. Bartelmus. 2005. Indicators of Sustainable Development: Proposals for a Way Forward. Expert Group Meeting on Indicators of Sustainable Development. New York. 13-15 December 2005. New York: United Nations Division for Sustainable Development.

Polfeldt, T. 2006. Making Environment Statistics Useful: A Third World Perspective. *Environmetrics* 17:219-226.

Pollock, M.S., L.M.J. Clarke, M.G. Dube. 2007. The Effects of Hypoxia on Fishes: From Ecological Relevance to Physiological Effects. *Environ. Rev.* 15:1-14.

Population Action International. 1993. Sustaining Water: Population and the Future of Renewable Water Supplies. Washington, D.C.: PAI.

Population Action International. 1997. Sustaining Water, Easing Scarcity: A Second Update. Washington: PAI.

Porter, T.M. 1995. Trust in Numbers: The Pursuit of Objectivity in Science and Public Life. Princeton, NJ: Princeton University Press.

Porter, T.M. 2001. Economics and the History of Measurement" *Supplement to the History of Political Economy* 33:4-22.

Postel, S. 2001. More Food with Less Water. *Scientific American* 284(2):46.

Raskin, P. 1997. Comprehensive Assessment of the Freshwater Resources of the World Water Futures: Assessment of Long-Range Patterns and Problems. Stockholm: Stockholm Environmental Institute.

REGIONET. 2003. Strategies for Regional Sustainable Development: An Integrated Approach beyond Best Practice. Regional Sustainable Development - Evaluation Methods and Tools. Manchester, U.K.: European Commission, DG Research.

Resources for the Future. 1997. The Implementation of the New National Ambient Air Quality Standards (NAAQS) for Ozone and Fine Particles (Panel 2). Testimony to the Subcommittee on Clean Air, Wetlands, Private Property and Nuclear Safety Committee on Environment and Public Works, 24 April 1997. Washington, D.C.: Resources for the Future.

Ricotta, C. 2004. A Parametric Diversity Measure Combining the Relative Abundances and Taxonomic Distinctiveness of Species. *Diversity and Distributions* 10:143-146.

Rogers, P.P., K.F. Jalal, B.N. Lohani, G.M. Owens, C.-C. Yu, C.M. Dufournaud and J. Bi. 1997. Measuring Environmental Quality in Asia. Cambridge, MA: Harvard University Press.

Rosegrant, M.W., X. Cai and S.A. Cline. 2002. World Water and Food to 2025: Dealing with Scarcity. Washington, D.C.: International Food Policy Research Institute.

Rosenthal, E. "Europe's Appetite for Seafood Propels Illegal Trade." *New York Times* January 15, 2008.

Rothwell, C.J., C.N. Hamilton and P.E. Leavertan. 1991. Identification of Sentinel Health Events as Indicators of Environmental Contamination. *Environmental Health Perspectives* 94:261-263.

Rubin, D.B. 1994. Comment on Bradley Efron's Article: Missing Data, Imputation, and the Bootstrap. J*ournal of the American Statistical Association (JASA)* 89(426):475.

Rubin, D.B. 1996. Multiple Imputation After 18+ Years. *Journal of the American Statistical Association (JASA)* 91(434):473-489.

Ruis, B.M.G.S. 2001. No Forest Convention But Ten Tree Treaties. *Unasylva* 206:3-13.

Saisana, M. and S. Tarantola. 2002. State-of-the-Art Report on Current Methodologies and Practices for Composite Indicator Development. EUR 20408 EN. Ispra: Applied Statistics Group, Institute for the Protection and Security of the Citizen, Joint Research Centre (JRC).

Sanderson, E.W., et al. 2002. The human footprint and the last of the wild. *Bioscience* 52(10):891–904.

Sanderson, E.W., M. Jaiteh, M.A. Levy, K.H. Redford, A.V. Wannebo, and G. Woolmer. 2002. The Human Footprint and the Last of the Wild. *Bioscience* 52(10):891–904.

Schafer, J.L. 1997. Analysis of Incomplete Multivariate Data. Monographs on Statistics and Applied Probability 72. 1st ed. London: Chapman & Hall/CRC.

Scheehle, E. and Kruger, D. 2006. Global **A**nthropogenic **M**ethane and Nitrous Oxide **E**missions. *Energy Journal* Sp. Issue 3:33-44.

Scherr and McNeely. 2007. Farming with Nature: The Science and Practice of EcoAgriculture. Washington, D.C.: Island Press.

Schoerers, P.J. 1983. The Need for an Ecological Quality Concept. *Environmental Monitoring and Assessment* 3:219.

Schofield, C.L. 1976. Acid Precipitation: Effects on Fish. *Ambio* 5-6:228-210.

Schulze, P.C. (Ed). 1999. Measures of Environmental Performance and Ecosystem Condition. Washington, D.C.: National Academy Press.

Schumann, R.W. 1995. Eco-Data: Using Your PC to Obtain Free Environmental Information. Rockville: Government Institutes, Inc.

Schwartz, J. 2003. The Impact of State Capacity on Enforcement of Environmental Policies: The Case of China. *Journal of Environment & Development* 12(1):50-81.

Scott, S., B. Nolan and T. Fahey. 1996. Formulating Environmental and Social Indicators for Sustainable Development. Dublin: Economic and Social Research Institute.

Seckler, D., U. Amarasinghe, D. Molden, R. de Silva, and R. Barker. 1998. World Water Demand and Supply, 1990 to 2025: Scenarios and Issues. Research Report 19. Colombo, Sri Lanka: International Water Management Institute.

Segnestam, L. 1999. Environmental Performance Indicators: A Second Edition Note. Environment Department Papers. 71. Washington D.C.: World Bank.

Shannon, C.E. and W. Weaver. 1949. The Mathematical Theory of Communication. Urbana, IL: University of Illinois Press.

Shepherd, K.D., and M.G. Walsh. Development of reflectance spectral libraries for characterization of soil properties. *Soil Science Society of America Journal* 66(3):988-998.

Sheram, K. 1993. The Environmental Databook: A Guide to Statistics on the Environment and Development. Washington, D.C.: World Bank.

Shih, J.-S., A.J. Krupnick, M.S. Bergin and A.G. Russell. 2004. Source-Receptor Relationships for Ozone and Fine Particulates in the Eastern United States. Discussion paper. 04–25. Washington D.C.: Resources for the Future.

Shih, J.-S., S.M. Bergin, A.J. Krupnick and A.G. Russell. 2003. Controlling Ozone and Fine Particulates: Cost Benefit Analysis with Meteorological Variability. Discussion paper. 03-55. Washington D.C.: Resources for the Future.

Shlisky, A., J. Waugh, P. Gonzalez, M. Gonzalez, M. Manta, H. Santoso, E. Alvarado, A. Ainuddin Nuruddin, D.A. Rodríguez-Trejo, R. Swaty, D. Schmidt, M. Kaufmann, R. Myers, A. Alencar, F. Kearns, D. Johnson, J. Smith, D. Zollner and W. Fulks. 2007. *Fire, Ecosystems and People: Threats and Strategies for Global Biodiversity Conservation*. GFI Technical Report. 2007-2. Arlington, VA: The Nature Conservancy.

Simpson, E. H. 1949. Measurement of Diversity. *Nature* 163:688.

Sinha, B.K. and K.R. Shah. 2003. On Some Aspects of Data Integration Techniques with Environmental Applications. *Environmetrics* 14:409-416.

Siracusa, G., A.D.L. Rosa and S.E. Sterlini. 2004. A New Methodology to Calculate the Environmental Protection Index (EPI): A Case Study Applied to a Company Producing Composite Materials. *Journal of Environmental Management* 73:275-284.

Skillius, Å. and U. Wennberg. 1998. Continuity, Credibility and Comparability - Key Challenges for Corporate Environmental Performance Measurement and Communication. A report commissioned by the European Environment Agency. Lund, Sweden: The International Institute for Industrial Environmental Economics at Lund University.

Smakhtin, V.U. and D.A. Hughes. 2004. Review, Automated Estimation and Analyses of Drought Indices in South Asia. Working Paper. 83. Colombo, Sri Lanka: International Water Management Institute.

Smjyth, A.J. and J. Dumanski. 1995. A Framework for Evaluating Sustainable Development. *Canadian Journal of Soil Science* 75(4):41-46.

Sorensen, D.L., M. McCarthy, E.J. Middlebrooks and D.B. Porcella. 1977. Suspended and Dissolved Solids Effects on Freshwater Biota: A Review. US Environmental Protection Agency, EPA-600/3-77-042.
Stakeholder Forum for Our Common Future. 2002. International Environmental Governance: A Briefing Paper. Available at: http://www.unedforum.org/publications/reports/IEG-SFpaper.pdf.
Statistical Commission. 2002. Reports Presented to the Statistical Commission on the Harmonization of Indicators on Development and the Coordination of Statistical Data Collection Activities from Member Countries. Available at: http://unstats.un.org/unsd/statcom/sc2002.htm.
Steinfeld, H., P. Gerber, T. Wassenaar, V. Castel, M. Rosales, and C. de Haan. 2006. Livestock's Long Shadow: Environmental Issues and Options. Rome: Food and Agriculture Organization of the United Nations.
Steuer, D. 1999. Multi-Criteria-Optimization and Desirability Indices. Technical Report-Reihe des Sonderforschungsbereichs 475. 20/99. Dortmund: Dortmund University.
Steuer, D. 2000. An Improved Optimization Procedure for Desirability Indices. Technical Report-Reihe des Sonderforschungsbereichs 475. 27/00. Dortmund: Dortmund University.
Stigler, S. 1999. Statistics on the Table: The History of Statistical Concepts and Methods. Cambridge, MA: Harvard University Press.
Sullivan, C. (ed.). 2001. The Development of a Water Poverty Index: A Feasibility Study. Wallingford, U.K.: Centre for Ecology & Hydrology.
Syers, J.K., A. Hamblin and E. Pushparajah. 1995. Indicators and Thesholds for the Evaluation of Sustainable Land Management. *Canadian Journal of Soil Science* 75(4):423-428.
Taam, W., P. Subbaiah and J.W. Liddy. 1993. A Note on Multivariate Capability Indices. *Journal of Applied Statistics* 20(3):229-351.
Tao, C.-C. and C.-C. Hung. 2003. A Comparative Approach of the Quantitative Models for Sustainable Transportation. *Journal of the Eastern Asia Society for Transportation Studies* 5:3329-3344.
The H. John Heinz III Center for Science, Economics, and the Environment. 2002. The State of the Nation's Ecosystems: Measuring the Lands, Waters, and Living Resources of the United States. Cambridge: Cambridge U Press. Updates Available at http://www.heinzctr.org/ecosystems/intro/indicators1.shtml.
The Ozone Hole Inc. 2008. The Ozone Hole History. Available at: http://www.theozonehole.com/ozoneholehistory.htm.
Theil, H. 1967. Economics and Information Theory. Amsterdam: North-Holland.
Thomas, W. A. (Ed.). 1972. Indicators of Environmental Quality. Plenum Publishing Corporation.
Törnqvist, L. 1936. The Bank of Finland's Consumption Price Index. *Bank of Finland Monthly Bulletin* 10:1-8.
Trautmann, H. 2004. Qualitätskontrolle in der Industrie anhand von Kontrollkarten für Wünschbarkeitsindizes - Anwendungsfeld Lagerverwaltung. Dissertation. Graduate School of Production Engineering and Logistics, Department of Statistics. Dortmund: Dortmund University.
Tropospheric Emission Monitoring Internet Service. 2008. Website. Available at: http://www.temis.nl/airpollution/so2.php.
Tschirley, J.B. 1992. The Use of Indicators for Sustainable Agriculture and Rural Development. Rome: Food and Agricultural Organization of the United Nations.
Tsuji, N. and Y. Tsubaki. 2004. Three New Algorithms to Calculate the Irreplaceability Index for Presence/Absence Data. *Biological Conservation* 119:487-494.
Tyteca, D. 1996. On the Measurement of the Environmental Performance of Firms - A Literature Review and a Productive Efficiency Perspective. *Journal of Environmental Management* 46:281-308.
Tyteca, D. 1997. Linear Programming Models for the Measurement of Environmental Performance of Firms - Concepts and Empirical Results. *Journal of Productivity Analysis* 8:183-197.
U.S. Environmental Protection Agency (USEPA). 2008. Website. Available at: http://www.epa.gov/air/criteria.html#6.
U.S. Environmental Protection Agency. 2005. Global Earth Observation System of Systems (GEOSS). Available at: http://www.epa.gov/geoss/.
UN Millennium Project. 2005. Environment and Human Well-Being: A Practical Strategy. Summary Version of the Report of the Task Force on Environmental Sustainability. New York: The Earth Institute at Columbia University.
UNEP GEMS/Water. 2006. Water Quality for Ecosystem and Human Health. Burlington, Canada. A publication of the UNEP GEMS/Water Programme.
UNEP GEMS/Water. 2007. Water Quality Outlook. A publication of the United Nations Environment Programme Global Environment Monitoring System (GEMS)/Water Pogramme.
UNEP/RIVM. 1994. An Overview of Environmental Indicators: State of the Art and Perspectives. Nairobi: United Nations Environment Programme.
UNEP/RIVM. 1995. Scanning the Global Environment: A Framework and Methodology for Integrated Environmental Reporting and Assessment. Nairobi: United Nations Environment Programme.
UNEP/WHO. 1993. Gems/Air - Global Environmental Monitoring System: A Global Programme for Urban Air Quality Monitoring and Assessment. Document No. WHO/PEP 93.7, UNEP/GEMS/93.A.I. United Nations Environment Programme.
UNESCO-SCOPE. 2006. Indicators of Sustainability: Reliable Tools for Decision Making. UNESCO-SCOPE.
United Nations Commission for Sustainable Development. 2001. Indicators of Sustainable Development. Available at: http://www.un.org/esa/sustdev/natlinfo/indicators/isd.htm. New York: United Nations.
United Nations Development Program. 2002. Human Development Report 2002 - Deepening Democracy in a Fragmented World. Human Development Reports. New York: UNDP.

United Nations Development Programme (UNDP). 1997. Human Development Report 1997. New York: Oxford University Press.
United Nations Development Programme (UNDP). 2006. Human Development Report 2006. New York: Oxford University Press.
United Nations Economic Commission for Europe (UNECE). 1995. Definitions of Terms Used in ECE Standard Classifications for the Environment. Geneva: United Nations Economic Commission for Europe.
United Nations Economic Commission for Europe (UNECE). 2008. Environmental Performance Reviews. Available at: http://www.unece.org/env/epr/welcome.htm. Geneva: UNECE
United Nations Educational Scientific and Cultural Organization. 2003. The United Nations World Water Development Report. Paris: UNESCO and Berghahn Books.
United Nations Environment Programme (UNEP). 1990. Thesaurus of Environmental Terms. Nairobi: United Nations Environment Programme.
United Nations General Assembly. 2000. United Nations Millennium Declaration. 55th Session. A/Res/55/2. New York: United Nations.
United Nations. 1984. Framework for the Development of Environment Statistics. Statistics Paper, Series M, No. 78. New York: United Nations.
United Nations. 1987. Energy Statistics: Definitions, Units of Measure, and Conversion Factors. New York: United Nations.
United Nations. 1988a. ACCIS Guide to United Nations Information Sources on the Environment. New York: United Nations.
United Nations. 1988b. Concepts and Methods of Environment Statistics: Human Settlements Statistics. Studies in Methods, Series F, No. 51. New York: United Nations.
United Nations. 1991. Concepts and Methods of Environment Statistics: Statistics of the Natural Environment. Studies in Methods, series F, No. 57. New York: United Nations.
United Nations. 1992. Agenda 21. Programme of Action for Sustainable Development. United Nations Conference on Environment and Development (UNCED), 3-14 June, Rio de Janeiro, Brazil. New York: United Nations.
United Nations. 1993a. Integrated Environmental and Economic Accounting: Handbook of National Accounting. New York: United Nations.
United Nations. 1993b. Readings in International Environment Statistics. New York: United Nations.
United Nations. 1994a. Recommendation on Tourism Statistics. Statistical Papers, Series M, No. 83. New York: United Nations.
United Nations. 1994b. Towards a Framework for Indicators of Sustainable Development. Working paper ST/ESA/1994/WP.7. 15. New York: United Nations.
United Nations. 1995. Compendium of Human Settlement Statistics. New York: United Nations.
United Nations. 1996a. Indicators of Sustainable Development: Framework and Methodologies. New York: United Nations.
United Nations. 1996b. State of the Environment Reporting: Source Book of Methods and Approaches. New York: United Nations.
United Nations. 1997a. Accounting and Valuation of Environment Volume 1: A Primer for Developing Countries. Bangkok: United Nations Economic and Social Commission for Asia and the Pacific.
United Nations. 1997b. Glossary of Environment Statistics. Studies in Methods, Series F, No. 67. New York: United Nations.
United Nations. 1997c. Spatial Data Sets for Environment Assessment: Towards Bridging the Data Gap. New York: United Nations.
United Nations. 2000. United Nations Millennium Development Goals. Available at: http://www.un.org/millenniumgoals/.
United Nations. 2004. Report of the Interagency Working Group on Environment Statistics to the 35th Session of the Statistical Commission. New York: United Nations.
United Stated Department of Agriculture (USDA). 2000. Farm Income and Financial Conditions. Available at: http://www.ers.usda.gov/ Briefing/baseline/1999/income.htm#income.
United States Department of Agriculture (USDA). 1986. A Primer on Integrating Resource Inventories. Washington, D.C.: United States Department of Agriculture.
United States Department of Agriculture. 2008. ERS/USDA Briefing Room - Farm Income and Costs. Available online at: http://www.ers.usda.gov/Briefing/FarmIncome/
United States Environmental Protection Agency (USEPA). 1994. Terms of Environment: Glossary, Abbreviations, and Acronyms. Washington, D.C.: United States Environmental Protection Agency.
University of Maryland. 1999. Rain Use Efficiency and Net Primary Production Database. Prepared for WRI as part of the PAGE project. College Park, MD: UMD Department of Geography.
Van Ardenne, J.A., F.J. Dentener, J.F.J. Olivier, et al. The EDGAR 3.2 Fast Track 2000 dataset (32FT2000), Emission Database for Global Atmospheric Research: Description of 32 FT2000 Document.
Van Noordijk, M., F. Agus, B. Verbist, K. Hairiah, T.P. Tomich. 2007. "Watershed Management." In Scherr, S.J. and J.A. McNeely, (eds). *Farming with Nature: The Science and Practice of Ecoagriculture.* Washington, D.C.: Island Press.
Victor, P.A. 1991. Indicators of Sustainable Development: Some Lessons From Capital Theory. *Ecological Economics* 4:191-213.
Vo¨ro¨smarty, Charles J., Christian Le´veˆque and Carmen Revenga. 2005. "Chapter 7: Freshwater Ecosystem Services." In *Millennium Ecosystem Assessment, Ecosystems and Human Well-Being: Current State and Trends*. Washington, D.C.: Island Press.
Walford, N. 1995. Geographical Data Analysis. New York: Wiley.

Walmsley, D., T. Havenga, E. Braune, C. Schmidt, K. Prasad and B.V. Koppen. 2004. An Evaluation of World Water Programme Indicators for Use in South Africa. Working Paper 90. Colombo, Sri Lanka: International Water Management Institute.
Washington, H.G. 1984. Diversity, Biotic and Similarity Indices: A Review with Special Relevance to Aquatic Ecosystems. *Water Research* 18(6):653-694.
Watson, R, I.R. Noble, B. Bolin, N.H. Ravindranath, D.J. Verardo, D.J. Dokken (eds.). 2000. Land Use, Land-Use Change, and Forestry. Cambridge: Intergovernmental Panel on Climate Change (IPCC) and Cambridge University Press. Summary available at: http://www.ipcc.ch/pub/SPM_SRLULUCF.pdf.
Weber-Scannell, P.K., and L.K. Duffy. 2007. Effects of Total Dissolved Solids on Aquatic Organisms: A Review of Literature and Recommendation for Salmonid Species. *Amer. J. Environ. Sci*. 3:1-6
Weinstein, E. 2005. MathWorld. Wolfram Research. Available at: http://mathworld.wolfram.com/.
Wetzel, R.G. 2001. Limnology, Third Edition. Burlington, MA: Academic Press.
Whittaker, R. H. 1965. Dominance and Diversity in Land Plant Communities. *Science* 147:250-260.
Whittaker, R.H. 1972. Evolution and Measurement of Species Diversity. *Taxon.* 21:213-251.
Willer, H. and M. Yussefi, (eds.). 2007. The World of Organic Agriculture - Statistics and Emerging Trends. International Federation of Organic Agriculture Movements and Research Institute of Organic Agriculture FiBL, Bonn, Germany, and Frick, Switzerland.
Wills, J.T. and D.J. Briggs. 1995. Developing Indicators for Environment and Health. *World Health Statistics Quarterly* 48(2):155-163.
Wilson, J., P. Tyedmers and R. Pelot. 2006. Contrasting and Comparing Sustainable Development Indicator Metrics. *Ecological Indicators* 7(2)299-314.
Wise, N.M. 1995. The Value of Precision. Princeton, NJ: Princeton University Press.
Wood, S., K. Sebastian, and S. Scherr. 2000. *Pilot Analysis of Global Ecosystems: Agroecosystems*. Washington, D.C.: The International Food Policy Research Institute and the World Resources Institute.
World Bank. 1992. World Development Report 1992: Development and the Environment. Washington, D.C.: World Bank.
World Bank. 1995. Monitoring Environmental Progress. Washington, D.C.: World Bank.
World Bank. 1996. Environmental Performance Indicators: A First Edition Note. Washington, D.C.: Environment Department, World Bank.
World Bank. 1998a. 1998 World Development Indicators. Washington, D.C.: World Bank.
World Bank. 1998b. Expanding the Measure of Wealth: Indicators of Environmentally Sustainable Development. Monograph. Washington, D.C.: World Bank.
World Commission on Environment and Development. 1987. Our Common Future. Oxford: Oxford University Press.
World Health Organization (WHO). 1980. Analysing and Interpreting Air Monitoring Data. Geneva: WHO.
World Health Organization (WHO). 1982. Rapid Assessment of Sources of Air, Water and Land Pollution. Geneva: WHO.
World Health Organization (WHO). 1992. Water Supply and Sanitation Sector Monitoring Report 1990: Baseline Year. WHO/UNICEF Joint Monitoring Program. New York, United States and Geneva, Switzerland.
World Health Organization (WHO). 1993. Water Supply and Sanitation Sector Monitoring Report 1993: Sector Status as of 31 December 1991. WHO/UNICEF Joint Monitoring Program. New York, United States and Geneva, Switzerland.
World Health Organization (WHO). 1996. Water Supply and Sanitation Sector Monitoring Report 1996: Sector Status as of 31 December 1994. WHO/UNICEF Joint Monitoring Program WHO/EOS/96.15. New York, United States and Geneva, Switzerland.
World Health Organization (WHO). 2000. WHO Air Quality Guidelines for Europe. Copenhagen: WHO.
World Health Organization (WHO). 2000a. Global Water Supply and Sanitation Assessment 2000 Report. http://www.who.int/water_sanitation_health/Globassessment/GlobalTOC.htm.
World Health Organization (WHO). 2000b. Improving Performance. Geneva, Switzerland: WHO.
World Health Organization (WHO). 2000b. World Health Report 2000: Health Systems. Geneva: WHO.
World Health Organization (WHO). 2004. Guidelines for Drinking-Water Quality. Third Edition Volume 1: Recommendations. Geneva: World Health Organisation.
World Health Organization (WHO). 2005. WHO Air Quality Guidelines for Particulate Matter, Ozone, Nitrogen Dioxide and Sulfur Dioxide. Global Update 2005, Summary of Risk Assessment. Available at: http://www.who.int/phe/health_topics/outdoorair_aqg/en/index.html.
World Health Organization (WHO) and Food and Agriculture Organization of the United Nations (FAO). 2003. Diet, Nutrition, and the Prevention of Chronic Disease. Geneva: WHO.
World Resources Institute (Ed.). 2007. Nature's Benefits in Kenya, An Atlas of Ecosystems and Human Well-Being. World Resources Institute, Washington, DC and Nairobi.
World Resources Institute (WRI). 1995. World Directory of Country Environmental Studies. Washington, D.C.: WRI.
World Wildlife Fund (WWF), Zoological Society of London (ZSL), and Global Footprint Network. 2006. Living Planet Report 2006. Gland, Switzerland: WWF.
Yale Center for Environmental Law & Policy. 2005. Yale Environment Poll 2005. New Haven, CT: Yale Center for Environmental Law & Policy. Available at: http://www.yale.edu/envirocenter/environmentalpoll.htm.
Young, O.R. 1999. The Effectiveness of International Environmental Regimes: Causal Connections and Behavioral Mechanisms. Cambridge: MIT Press.
Zellner, A. (n.d.). Keep It Sophisticatedly Simple. Chicago: University of Chicago Press.
Zellner, A. 1992. Statistics, Science and Public Policy. *Journal of the American Statistical Association (JASA)* 87(417):1-6.

Zidek, J.V. 2006. Post-Normal Statistical Science. *Journal of the Royal Statistical Society, Series A (Statistics in Society)* 169(1):1-4.