

Natural Capital Action Plan

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The GLOBE Natural Capital Action Plan

Prepared as part of the GLOBE International Commission on Land Use Change and Ecosystems

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Executive Summary

The aim of the GLOBE Natural Capital Action Plan is to define a clear and targeted set of actions for legislators to ensure the true value of ecosystem services and natural capital is integrated into policy making.

Following the publication of the Millennium Ecosystem Assessment (MA) and The Economics of Ecosystems and Biodiversity (TEEB) report, we understand better than ever before that our ecosystems are deteriorating and that this is having a significant material impact on our economies and societies. It is also clear that there are a number of interventions that the international community, governments and parliamentarians could have made to arrest this decline, but have chosen not to, partly due to the fact that natural capital is not included in policy making processes. Therefore, global biodiversity loss continues at an ever-increasing rate and many critical ecosystem services continue to be degraded. This paper, building upon the knowledge of the MA and TEEB studies, sets out a set of practical actions for legislators, governments and auditors.

It is essential that Finance Ministers and Treasuries understand the scientific evidence and the political potential of the natural capital approach. The GLOBE International Secretariat has therefore produced this paper to support the formation of a GLOBE leadership group of legislators that can begin to advance the steps outlined in the paper to engage with these critical constituencies. The action plan includes the following recommendations:

- Mainstream the valuation of natural capital by requesting that a **ministerial position is created within the Finance Ministry or Treasury** with responsibility for managing a country's natural wealth.
- Request that the Finance Ministry or Treasury develops a comprehensive set of **Natural Capital Accounts** that is accompanied by a report that outlines which policy choices were affected by integrating the true value of ecosystem services.
- Ensure all government departments take responsibility for the impact of their policies and programmes on a country's natural capital by calling for the creation of an **inter-department ministerial committee** to oversee their actions.
- Encourage national audit offices to adopt the natural capital approach when examining the effectiveness and efficiency by which government departments use their resources.
- Highlight to governments that 'investing in natural capital' can have positive benefits to the economy and society, and how environmental restoration and conservation can help achieve mainstream public policy goals.

By agreeing to this Natural Capital Action Plan, we are asking legislators to lead a coordinated response to reshaping existing policy and national accounting frameworks to accurately reflect the relationship between the economy and the environment. This document outlines a set of clear practical political actions that will set the world on a path to a more sustainable future.

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Mr Ian Johnson Chair, GLOBE International Commission on Land Use Change and Ecosystems

Mr Adam C.T. Matthews Secretary General GLOBE International



1 Introduction

Ecosystems are deteriorating worldwide, and with them, the capacity to support human wellbeing and sustainable economic growth. The degradation of the natural environment has many causes, but a major contributing factor, as identified in the Millennium Ecosystem Assessment (MA), is the failure to value the numerous services provided by ecosystems. Therefore, part of the solution to this problem must focus on ensuring that policy making takes into account the full value of ecosystem services.

'Natural capital' is a useful concept to help achieve this goal. Natural capital refers to those aspects of the natural environment that deliver socio-economic value through ecosystem services. For example, wetlands provide water treatment and purification services; prevent floods by retaining surface runoff; and provide wildlife habitat. Natural capital exists alongside, and often underpins, man-made capital.

The integration of ecosystem valuation into policy making and economic statistics has increasingly focused on 'greening' the national income accounts. Currently, natural capital is not comprehensively recorded and therefore not fully recognised in policymaking processes. By not including the value of ecosystem services in the cost benefit analysis of policy options, decision makers are often choosing solutions that are detrimental to a country's stock of natural capital. The forestry sector demonstrates this very clearly; the income from harvesting timber is measured and recorded, whereas the simultaneous depletion of important ecosystem services, including climate regulation, carbon sequestration and erosion control, are not.

In order to reconcile economic and environmental interests, the value of natural capital should be integrated into government decision-making. For this to happen three things are required:

- Scientific information regarding the status and trends of natural capital;
- Economic valuation methodologies that assign an accurate value to natural capital;
- Political leadership to ensure the integration of this value into policy making processes.

The focus of the GLOBE Natural Capital Action Plan is on the third part of this process. The first two parts are not yet complete, or perfect, but sufficient information exists and suitable tools have been developed to make preliminary assessments of the real value of natural capital. These tools are continuously being improved for application at a greater scale, and so do not present a block to integrating natural capital into policy.

The real missing link is the **political leadership** that is necessary to reverse the current trend of ecosystem degradation by recalibrating the measurement of sustainable economic growth. Legislators can play a central role in making the transition to an economy which recognises and takes into account the role of biodiversity and ecosystem services. This document outlines a practical action plan that legislators can follow to accelerate the recognition of natural capital by governments and to ensure that the true value of ecosystem services are integrated in policymaking procedures across all government departments.



2 Valuing Natural Capital

2.1 Introduction

This section outlines three approaches to integrating the value of natural capital and ecosystem services into policy making; two for improving national accounting and one for policy and project appraisal. None of these methods are perfect, but they are each a considerable improvement on not including the value of the goods and services provided by the natural world. Equally, it is not possible to attribute an economic value to every ecosystem service, so any attempt to value one service will be a conservative estimate of the true benefits provided by the ecosystem.

2.2 Environmental Accounts

Environmental accounts incorporate the value of natural capital into the national accounting framework. The integration of environmental accounts for stocks and flows of natural resources, environmental expenditure and environmental macroaggregates with other economic data in the national accounts allows for detailed analysis of the relationships between the environment and the economy.

By developing comprehensive environmental accounts, natural capital can be included alongside other forms of capital in national income accounts. This approach will highlight to policy makers the relationship between the environment and the economy, and help ensure that natural capital is used in a sustainable way to support the economy over the long term.

2.2.1 System of Environmental and Economic Accounting (SEEA)

An international standardised framework for environmental accounting is currently being developed through an intergovernmental process and is due for completion in 2012. The most recent version of this framework 'The Handbook of National Accounting - Integrated Environmental and Economic Accounting', (commonly referred to as the **SEEA**), was published in 2003 and includes a book of best practices, reflecting country experiences and providing multiple options for environmental accounting.

This new version will be divided into two volumes; firstly a set of standardised methods for environmental accounting that can be integrated with the System National Accounts (SNA), this will cover natural resource asset accounts; flow accounts for materials, pollutants, energy and resources; expenditure on environmental protection and resource management; and environmentally-adjusted macroeconomic indicators. The second volume will cover the areas where there is not yet a standardized methodology, but where numerous approaches have been developed, such as for ecosystem valuation. Although not yet standardised, these methodologies demonstrate that the economic value of ecosystem services can de estimated and used in policymaking.

2.2.2 Wealth Accounting

The other well-known method for incorporating the value of natural capital into estimates of national wealth is the World Bank's work on '**wealth accounting**'. This approach emphasises the importance of including changes in natural and social capital within the annual measure of national wealth. This will allow changes in natural capital to be reflected in the macro-level aggregate indicators that describe the state of the economy. Within this approach, the measurement of natural capital includes the valuation of agricultural land, subsoil assets, timber and non-timber forest products. The latest natural capital estimates from the World Bank in 2003 do not include the valuation of ecosystem services, however, this process is ongoing and the valuation methodologies are being updated.



2.3 Economic Appraisal

In addition to developing environmental accounts, the economic appraisal of government policies and projects needs to be made more comprehensive to ensure that the true value of the natural capital and ecosystem services is considered when deciding upon the most cost effective option that achieves the desired objectives. There are a broad range of methodologies that can be used to put an economic value on ecosystem services, however, they have primarily been applied at a landscape or regional scale and vary according to their reliability, accuracy and sophistication.

In addition, obtaining consistent and precise ecosystem valuations can be expensive and time consuming. One approach that minimizes the cost and time of valuing of environmental costs and benefits is to use the '**value transfer**' method, also known as 'benefits transfer'. This approach allows information from previous economic valuations to be applied to a new context. For example, the flood protection benefits of a wetland may be calculated using existing estimates of flood protection value that were derived in a similar context.

2.4 How to Avoid Paralysis by Analysis

The lack of a recognised and consistent approach to valuing natural capital is often quoted as the reason that the true value of the natural environment is not fully integrated into policy and accounting frameworks. However, we believe that there are a number of relatively simple tools and methodologies that can be adopted immediately to ensure that policy decisions better reflect the role that ecosystems play in underpinning our economy and society. Chapter 3 of the GLOBE Natural Capital Action Plan looks at the role of legislators in achieving this transition.

2.5 Sequencing

It will be important for governments and legislators to sequence the introduction of the measures outlined in this paper. We believe that we know enough for action to be taken now, but that as politicians move to implementation and legislation, it will be important for governments and legislators to sequence the interventions. Clearly the decisions involved in this will be different for each government. Most importantly, however, and based on the experience of many GLOBE legislators, it is clear that it is important to begin the process of advancing legislation rather than crafting perfection which will only ever delay action.

3 The Role of Legislators

This section outlines the various roles that legislators must play to ensure that the real value of natural capital and ecosystem services is integrated into government policy making. Legislators play a critical role in examining and challenging the work of the government and passing legislation. Therefore, they are a key stakeholder who must understand and champion the need to value natural capital.

3.1 Mainstreaming Natural Capital across Government

Legislators play a central role in the policy making process by holding their governments to account and scrutinizing their decisions. This oversight function is of particular relevance when the government is considering trade-offs between economic growth and the natural environment. Traditional macroeconomic indicators, such as Gross Domestic Product (GDP), play a central role in guiding government's public policy, despite their limited inclusion of environmental impacts. Therefore, it is essential that legislators are equipped to highlight the shortcomings of these indicators and to encourage the government to mainstream ecosystem valuation into the economic growth model.



The key government department that needs to understand the concept of natural capital is the Finance Ministry or Treasury. The Finance Ministry is at the heart of government and is central to implementing government policy, advising and supporting the economic management of the State, and the overall development of the public sector. Chapter 4 of the GLOBE Natural Capital Action Plan outlines a set of recommendations for governments to implement, with a particular focus on the Finance Ministry.

3.2 Scrutiny of Government Policy Making

Legislators on the Public Accounts Committees, or equivalent parliamentary bodies, are responsible for examining the public expenditure of the government, carrying out value-for-money studies of the economy and for scrutinising the effectiveness and efficiency by which government departments use their resources.

In many instances, although not all, parliaments are also the bodies to which national audit offices, national statistical offices and national accounts offices report. Therefore, legislators have the responsibility to oversee the operations and strategies of the institutions that play a central role in both auditing government policy and providing the fundamental data on which government policy is based. Chapter 5 of the GLOBE Natural Capital Action Plan outlines a set of recommendations for National Audit Offices and Courts of Account to adopt the natural capital approach.

3.3 Ownership of Environmental Accounts

The success to the long-term uptake and use of environmental accounts depends on the level of ownership by the host country. It is critical to demonstrate the relevance of environmental accounts to key legislators in order to develop the political ownership of the environmental accounts that will ensure their sustained use and further development.

In particular, previous donor-driven attempts to create environmental accounts in developing countries have failed to advance beyond the initial period of support due to a lack of buy-in from the relevant ministry at the beginning of the initiative. Therefore, a critical early component of this initiative must involve working with the end-users of environmental accounts and ensuring that there is an internal demand for their development.

3.4 Achieving Public Policy Goals by Investing in Natural Capital

Legislators can develop political support across all government departments by highlighting the economic and social benefits that exist alongside the environmental objectives of protecting the natural world. 'Investing in natural capital' through restoration, conservation or environmental management can achieve mainstream public policy goals in a timely fashion, such as economic growth, job creation and energy and food security. GLOBE has produced a supporting document, "Natural Capital: The New Political Imperative", which profiles 12 case studies where environmental policies have achieved benefits for the economy and society. These policies are currently seen as "progressive", however, once natural capital is integrated into decision making, these approaches will become second nature to policy makers.



4 **Recommendations to Governments**

4.1 Creation of a Ministerial Position within the Finance Ministry to Oversee the Management of Natural Capital

The long-term objective of establishing this role within government is to create a position with the responsibility of regulating a country's use of natural capital, including both natural resources and ecosystems, and to sign off on all use and depletion of natural capital. This would be a ministerial position within the country's Treasury/Finance Ministry. For example, within the UK this could be equivalent to the position of Chief Secretary to the Treasury, e.g. the Chief Secretary of Natural Capital.

The responsibilities of the Chief Secretary of Natural Capital would be to:

- a. Oversee the adoption of the latest environmental accounting methodologies (as set out in the System of Environmental and Economic Accounting, SEEA);
- b. Question why departments are pursuing a technological solution that might be more efficiently brought about through a natural or ecosystem-based approach;
- c. Ensure that the Finance Ministry or Treasury prepares a set of Natural Capital Accounts to be published every three years (with the aim of fully integrating these accounts into the government's budget);
- d. Head up the Ministerial Committee on Natural Capital (see Section 4.2).

4.2 Creation of a Ministerial Committee on Natural Capital

This inter-departmental committee would consist of ministers from each relevant department and would be supported by leading external policy experts (see Section 4.4). The committee would:

- a. Oversee the necessary actions to measure the economic value of the key components of natural capital within national accounting procedures;
- b. Ensure that the values of natural capital are integrated into policy formulation and investment decisions across all government departments (by identifying and advancing the necessary pieces of legislation to underpin this process);
- c. Prepare a complementary report to the Natural Capital Accounts that investigates the implications of the government's policies on the environment and the economic. This publicly available report will identify the projects, programmes and policies that became economic (or uneconomic) as a result of integrating the value of natural capital.

4.3 Requirement for all Government Departments to develop Natural Capital Inventories

All government departments should be required to produce Natural Capital Inventories that identify as far as possible all the natural capital assets for which that department is responsible, or whose value may be affected (whether adversely or positively) by their departmental activity. Each government department would be required to coordinate with the Finance Ministry or Treasury (through the Chief Secretary of Natural Capital) on the valuation for the natural capital assets contained in their inventory (in line with the latest recognised valuation methodologies).



In addition, government departments should utilise the key performance indicators for sustainability when determining their policies and measures. Estimates and budgets must include the financial cost of implementing these measures, the timescale of the expenditure and the income and qualitative returns expected from the measures, and should be agreed to by the Finance Ministry or Treasury.

4.4 Creation of an Advisory Group to the Ministerial Committee on Natural Capital

This advisory group would oversee the technical transition to the incorporation of natural capital into governmental procedures and serve as an expert committee to oversee the technical incorporation of the value of natural capital into day-to-day government activity.

This advisory group would build upon the existing scientific and economic work and bring together leading experts from academia. Initial groups would be established to determine the real value of the central aspects of natural capital that may or may not already be incorporated into government accounting e.g. minerals, sub-soil assets, water resources, forests, marine fisheries etc. These groups would serve to provide a detailed report on the value of each natural capital component every five years.

4.5 Integrate the Value of Natural Capital into Policymaking Processes

All policy and project proposals that influence the state of the country's environment should undergo economic appraisal that includes the valuation of natural capital and ecosystem services. Government departments will be obliged to incorporate a costed explanation of how their policies will enhance natural capital or transform it into other forms of capital so that overall national wealth is increased. Where a policy proposal is estimated to deplete natural capital or result in declining ecosystem services, that depletion must be clearly costed and agreed by the Finance Ministry or Treasury. These revisions will need to be updated in the equivalent to country's 'Green Book' or 'Government guidelines for project and programme evaluation'.

Once the real value of the key components of the natural capital have been established by the advisory group, the following actions should be taken:

- a. All government funded investments are required to use the real value of natural capital in order to determine the optimal investment strategy;
- b. The private sector should be encouraged (or required over a reasonable time period) to use the same metrics;
- c. Local authorities should be encouraged (or required) to use the same methodologies for evaluating planning applications that result in changes to the stock of the country's natural capital (land, water, etc).
- d. Develop a communication and engagement strategy that clearly explains the government's approach to natural capital to the general public;
- e. The National Audit Office should monitor the application of these rules/principles and provide and annual assessment of their applicability.



5 Recommendations to National Audit Offices

Most countries have audit offices or courts of account which act as the external auditor of government expenditure. The three main powers of these bodies are to:

- Audit the financial statements of government departments;
- Determine the legality of government expenditure;
- Evaluate the economy, efficiency and effectiveness of policy implementation performance or value for money audit.

It must be recognised, however, that not all audit offices or audit courts have all these powers, and that the extent and manner of their exercise varies between jurisdictions. But whatever the arrangements, the success of the external auditor depends upon:

- Complete independence;
- Free access to the books, records and staff of government departments;
- The right to publish reports without government censorship.

At the same time, it should be noted that the external auditor neither makes nor implements policy. That is the responsibility of executive government. But the auditor's recommendations and legal decisions can improve both policy making and its execution. Within this context, the audit office can promote the incorporation of natural capital evaluation into policy making and execution.

5.1 Recommendations to Audit Offices

- a. Recommend audit offices to take account of natural capital issues in their audit of financial statements and their determination of the legality of expenditure.
- b. Issue public reports on the economy, efficiency and effectiveness of government policies concerning natural capital issues. Many audit offices already do this, and all could do more. Examples of work to date:
 - Audit Office of the Ukraine rehabilitation of the Azov and Black Seas 2003;
 - Audit Office of Botswana performance audit of government fisheries policy 2005;
 - Court of Audit of Brazil performance audit of government forestry policy 2004;
 - Audit Office of Poland audit of policy for animal protection and transportation 1999;
 - Audit Office of the UK performance audit of DEFRA's organic agri-environment scheme 2010
- c. Where governments have accepted audit office recommendations check that they have been implemented, and report accordingly in public.
- d. Join the Working Group on Environmental Auditing of the International Organisation of Supreme Audit Institutions. The Organisation is currently chaired by the Auditor General of Estonia and has some 30 member countries.
- e. Provide briefing papers on natural capital issues to Parliamentary committees and, where requested, to individual legislators.
- f. Hold conferences on the audit of natural capital issues, open to legislators, civil servants, accountants, academics and others from at home and abroad.

These activities all demand that audit offices should have appropriately trained staff directly employed or on secondment, and that they should be appropriately resourced.



References

- de Bruyn, S. M. (2000) *Economic growth and the environment: an empirical analysis*. Kluwer Academic Publishers, The Netherlands
- DEFRA (2010) Delivering a healthy natural environment. An update to "Securing a healthy natural environment: An action plan for embedding an ecosystems approach". Department for Environment, Food and Rural Affairs (DEFRA), London
- DEFRA (2010) Incorporating Valuation Of Ecosystem Services Into Policy And Project Appraisal. DEFRA, London
- Economics for the Environment Consultancy (2010) Valuing Environmental Impacts: Practical Guidelines for the Use of Value Transfer in Policy and Project Appraisal (Non-Technical Summary). Economics for the Environment Consultancy (EFTEC), London
- Edens, B. and de Haan, M. (2010) *How the SEEA Contributes to Environmental Sustainability Policies.* Background Paper to the IAOS Conference, 20-22 October 2010, Chile

Grant Thornton (2010) Greening the Green Book. Grant Thornton, London

- INTOSAI Working Group on Environmental Auditing (2007) *Auditing Biodiversity: Guidance for Supreme Audit Institutions.* INTOSAI Working Group on Environmental Auditing (WGEA), National Audit Office of Estonia, Estonia
- Lange, G.-M. (2003) Policy applications of environmental accounting. World Bank, Washington DC
- Lange, G.-M. (2010) *Global Initiative for Wealth Accounting (draft concept note)*. The World Bank, Washington, DC
- Millennium Ecosystem Assessment (2005) *Ecosystems and Human Well-being: Synthesis.* Island Press, Washington, DC
- Pauli, N., Grover, A. and Stephens, C. (2010) *Environmental Accounting: Including natural resources on national balance sheets*, Zoological Society of London (ZSL) and GLOBE International, London
- The World Bank (2006) Where is the wealth of nations? The World Bank, Washington DC
- United Nations, European Commission, International Monetary Fund, Organisation for Economic Cooperation and Development and The World Bank (2003) *Handbook of National Accounting Integrated Environmental and Economic Accounting 2003*, New York
- United Nations Statistical Division (2007) *Global assessment of environment statistics and environmental-economic accounting.* Background paper prepared for the 38th session of the UN Statistical Commission, 27 Feb-2 Mar 2007, New York
- Voora, V. A. and Venema, H. D. (2008) *The Natural Capital Approach: A Concept Paper*. International Institute for Sustainable Development, Canada
- TEEB (2009) *TEEB The Economics of Ecosystems and Biodiversity for national and international Policy Makers 2009.* TEEB is hosted by UNEP, Nairobi



Annex: The GLOBE Natural Capital Initiative

Beyond Nagoya

To support the implementation of the Natural Capital Action Plan, outlined in this document, the GLOBE Natural Capital Initiative will be launched on Tuesday 26th October. This will take place at the closing session of the Nagoya Parliamentarians Forum at the UN Convention on Biological Diversity (CBD) 10th Conference of Parties (COP10).

This initiative will engage a leadership group of legislators from a select group of countries to advance the recommendations made in this action plan. By working closely with the relevant experts from the Millennium Ecosystems Assessment, The Economics of Ecosystems and Biodiversity (TEEB) study and from the relevant multilateral institutions, this GLOBE initiative will develop political momentum to support the natural capital approach and focus on implementation at the national level.

More specifically, this initiative will involve:

- Creating an international leadership group of countries supported at both a governmental and parliamentary level to advance this agenda through legislation and government policy changes;
- Improving the political understanding within governments and parliaments about why valuing ecosystem services and natural capital is important and yields economic benefits;
- Supporting the testing and refining of the more developed accounting and valuation methodologies in order to provide case studies of their effectiveness;
- Demonstrating and documenting best practice for use by legislators;
- Improving the communication between policy makers and technical experts to accelerate the integration of the value of natural capital into policy making;
- Developing competencies within parliaments to prepare terms of reference for national auditing and accounting bodies and, ultimately, to pass legislation to underpin this transition.

The GLOBE Natural Capital Initiative will build on the results and the approach of the GLOBE International Commission on Land Use Change and Ecosystems. By convening senior legislators with the leading scientific, economic and legal experts, GLOBE plans to support legislators to develop and implement effective policy solutions.

For more information regarding the GLOBE Natural Capital Initiative, please contact the Secretary General of GLOBE International, Mr Adam Matthews at <u>adam.matthews@globeinternational.org</u>.

