



# Disasters and Conflicts

The UNEP response to environmental crises across the globe



Hurricane Sandy caused widespread environmental devastation also in Haiti (see p. 11)

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## Archive

Previous issues of the UNEP Disasters and Conflicts Sub-programme Progress Reports are available [here](#).



## UNEP Disasters and Conflicts Sub-Programme

Minimizing threats to human well-being from the environmental causes and consequences of disasters and conflicts is a priority area for the United Nations Environment Programme (UNEP). Its Disasters and Conflicts sub-programme comprises four operational pillars: post-crisis environmental assessment, post-crisis environmental recovery, environmental cooperation for peacebuilding and disaster risk reduction. While the Post-Conflict and Disaster Management Branch (PCDMB) coordinates the theme across UNEP, the regional offices, other divisions and several inter-agency partnerships are instrumental in its implementation.

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# Post-Crisis Environmental Assessment

Under the Post-Crisis Environmental Assessment pillar of the Disasters and Conflicts sub-programme, UNEP offers technical assistance to countries where critical ecosystems or natural resources have been directly or indirectly degraded, damaged or destroyed by conflicts and disasters. Field-based assessments using sound science and state-of-the-art technology identify environmental risks to human health, livelihoods and security with the aim of integrating environmental needs into relief and recovery programmes.

## UNEP Experts to Assess Toxic Waste Dumping in Côte d'Ivoire

In September a UNEP team of experts completed a scoping mission to Abidjan, Côte d'Ivoire, at the request of the national government, to carry out an initial assessment of 16 sites in the country's capital affected by the dumping of toxic waste in August 2006. A costed workplan for a complete environmental audit has been submitted by UNEP to the government and is pending approval.

The 2006 Côte d'Ivoire toxic waste dump provoked a serious health crisis in the country. A ship registered in Panama, the *Probo Koala*, chartered by the oil and commodity shipping company Trafigura Beheer BV, offloaded toxic waste at the Ivorian port of Abidjan. The waste was then dumped by a local contractor at sites in and around the city of Abidjan.

The gas released by these chemicals is blamed for the deaths of 17 people and the injury of over 30,000 Ivorians, with injuries that ranged from mild headaches to severe burns of skin and lungs. Almost 100,000 Ivorians sought medical attention due to the effects of these chemicals.

The substance was claimed by Trafigura to have been "slops", or waste water from the washing of the *Probo Koala's* tanks. Other reports, however, say that substance was in fact more than 500 tonnes of a mixture containing fuel, caustic soda, and hydrogen sulfide. The *Probo Koala*

had been turned away by several countries before releasing the toxic waste in the Port of Abidjan.

In spite of the subsequent clean-ups of the sites, there is still significant and widespread concern within the local community about the persistent health and environmental impacts of the waste dumping. Due to a combination of environmental contamination, public health impacts, legal implications, compensation and politics, the issue remains highly political in this West African nation.

It is within this context that Côte d'Ivoire made a request for UNEP to undertake an independent scientific assessment of the environmental situation in Abidjan in areas impacted by the waste dumping.

The UNEP audit of the environmental consequences of the toxic waste disposal in Abidjan from the *Probo Koala* will focus on identifying potential residual environmental contamination in the various impacted locations. This audit will assist the government in completing the clean-up process if there is any contamination left and assist the community in bringing the contamination issue to a close if the sites are indeed remediated and free of toxic substances. The assessment will be thorough and will use internationally recognized methods, tools and laboratories, similar to assessments conducted by UNEP in other countries. Results are expected in 2013.

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Toxic waste was dumped at 16 sites around Abidjan, the capital of Côte d'Ivoire





## Welcome to the Environmental Emergencies Centre

The Environmental Emergencies Centre seeks to build the capacity of high-risk low and middle-income countries to respond to environmental emergencies

### UNEP/OCHA to Provide Vital Training on Dealing with Environmental Emergencies

While the UN family benefits from well-established mechanisms to respond to emergencies and humanitarian crises, there is an urgent need to enhance the national capacity for environmental emergency preparedness and response planning, particularly in vulnerable low and middle-income countries.

Consequently, the Joint UNEP/OCHA Environment Unit (JEU) has developed the **Environmental Emergencies Centre (EEC)**, a free online tool aimed at increasing the capacity of high-risk, low and middle-income countries to respond to environmental emergencies. Acting as a virtual resource, the EEC hosts numerous tools, guidelines and reports, provides relevant environmental emergency updates and supports discussion and documentation sharing. The EEC also facilitates national level workshops.

Training modules include:

- Beyond Response: introduction to environmental emergencies. This 3-hour eLearning and 3-day face-to-face training was developed in partnership with the Swedish Civil Contingencies Agency (MSB). It has been developed in English and is currently being translated into French and Arabic. (The training was pilot tested in Abuja, Nigeria in November).
- Introduction to Industrial Accidents: prevention, preparedness and response. Developed in partnership with UNEP's Division of Technology Innovation and Economics (DTIE) and the UN Economic Commission for Europe (UNECE). A 3-hour eLearning session and 3-day face-to-face workshop, which will be available in English, French and Russian.

- Introduction to the Flash Environmental Assessment Tool. A 3-hour eLearning session available in English.
- Disaster Waste Management: tools and guidelines. A 3-hour eLearning session developed in consultation with a review panel. Training is available in English.
- Mainstreaming Environment in Humanitarian Response. A 3-hour eLearning session being developed in English in consultation with the World Wildlife Fund and Groupe Urgence Rehabilitation Development.

The aim of the online learning series is to strengthen capacity to prevent, prepare for and respond to environmental emergencies, by:

- Raising awareness of environmental emergencies and the associated risks and impacts;
- Solidifying understanding of the national and international response systems to environmental emergencies;
- Dissemination of and building capacity to utilize a range of available tools and resources for preventing, preparing for and responding environmental emergencies.

The target audience of these training platforms includes anyone involved in the prevention, preparedness, response and recovery of environmental emergencies, such as national disaster managers, policy/decision makers, senior officials in government ministries, environmental experts and stakeholders who may be at risk of environmental emergencies in their profession (industry) or personal life (community member in high risk area). The Environmental Emergencies Centre is live at [www.eecentre.org](http://www.eecentre.org) and is scheduled for official launch in May 2013.

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# Post-Crisis Environmental Recovery

Based on the outcomes of environmental assessments, UNEP works to develop recovery programmes that encompass environmental governance, clean-up and rehabilitation, and ecosystem management projects. These programmes provide an initial anchor for UNEP in crisis-affected countries, which can be used as a basis for wider programming involving other priority areas. UNEP also acts as the focal point for environmental issues within the UN country team and works to integrate environmental needs into UN recovery programmes.

## Sudan

### Livestock Trade Vital to Economic Recovery in Darfur: UNEP study

The revival of the livestock trade – mainly camels, cattle and sheep – in Darfur is vital to the long term economic recovery of this region in Sudan. Livestock is Darfur's principal export, and in 2011 was Sudan's most important export after petroleum and gold. However the livestock trade in this region has plummeted by 40 to 50 percent since 2003 due to the ongoing conflict which has seriously disrupted the sector, according to a recent report by UNEP, Tufts University & the Feinstein International Center.

The report, entitled **"On The Hoof"** and funded by UKAID as part of their support to UNEP's project in Sudan, analyses the livestock trade in Darfur since 2003 and how it has adapted to the constantly changing dynamics of the conflict.

As a direct result of the conflict looting of livestock has been widespread, and many livestock traders have gone out of business. In addition, large-scale traders have left Darfur's livestock markets due to insecurity and the risks associated moving animals along traditional pastoralist routes. Escalating costs associated with the conflict and soaring taxation rates also prompted a dramatic decrease in the livestock trade.

Despite the challenges, positive signals have been detected. The trade in hides and skins has flourished - an activity that engages women and affords opportunities for gender sensitive livelihood support. There have also been agreements between traders and otherwise hostile groups - this could be a starting point for rebuilding relationships around natural resources.

Three major dissemination events were held to showcase the *On the Hoof* study: The first was hosted and led by the Federal Ministry of Livestock, Fisheries and Range, and attended by high-ranking Sudanese officials who have policy-making influence in Sudan. The second targeted

the UN and the INGO community, as well as key private sector players with an interest in investment in the Darfur region. The third event targeted the NGO and CBO community, and was held exclusively in Arabic.

### Prioritizing Darfur: UNEP's Role in the Darfur Joint Assessment Mission

In September UNEP led the Natural Resource Management Working Group – one of the 10 groups that represent the principle themes of the Darfur Joint Assessment Mission (DJAM). The DJAM is mandated by the Doha Document for Peace in Darfur (DDPD) to identify key early recovery and long term reconstruction and development needs for Darfur. The DJAM process is led by the country's two main political parties, with support from the international community, particularly the United Nations and the World Bank, and the African Development Bank.

UNEP, in its pivotal role in the Natural Resource Management Working Group, led five state consultations in each of Darfur's capitals, with representatives from the localities, government, civil society and others. The aim was to establish a list of needs and priorities for Darfur to improve the region's management of its natural resources, including water and land. This is considered one of the crucial steps to building lasting peace in the region.

The DJAM – and its list of priorities - will be the focus of a high-level donor conference in early 2013 where significant financial pledges are

expected to be made by the international community. The inclusion of Natural Resource Management as a stand-alone component in this process provides an excellent opportunity for environmental messages to feed into the wider peacebuilding, development and recovery processes in Darfur.

### Environmental Governance in Sudan: Improve & Consolidate

Since the secession of the Republic of South of Sudan in July 2011, Sudan has become increasingly reliant





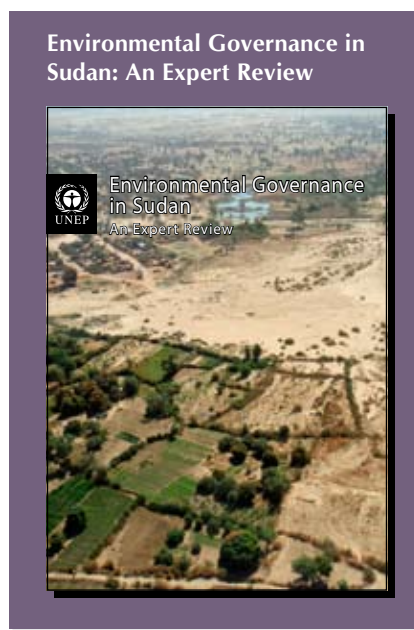


Land use according to soil type in Wadi el Ku, North Darfur

on agriculture as a key component of its economy. At present agriculture provides employment to 60 percent of the population, generating more than one-third of the country's GDP and more than 90% of the non-oil export earnings.

UNEP aims to stimulate debate on priority areas for strengthening and consolidating systems and institutions that support the general environment, and lay the groundwork for sustainable and equitable environmental governance. This is a priority for Darfur's early recovery programme, and will help in efforts to mitigate the risk of conflict over resources elsewhere in the country.

To this end UNEP released the first of three environmental governance reports on Sudan in November – this particular study **“Environmental Governance in Sudan: An Expert Review”** provides an assessment of the environmental policies and institutions in Sudan.



This report was authored by two senior Sudanese environmentalists: Dr Yagoub Abdalla Mohamed, former director of the Institute of Environmental Studies at the University of Khartoum, and Dr Omer Egemi, Senior Assistant Professor of Natural Resource Management, Faculty of Geography and Environmental Sciences, University of Khartoum. The final two reports - “Governance for Peace over Natural Resources” and “Relationships and Resources” - are slated to be published in early 2013.

### Improving the Management of the Rangelands in Darfur

Disputes over access to natural resources – including land – are among the causes of the conflict in Darfur. In this vein UNEP hosted a two-week learning visit to Kenya and Tanzania in September for Sudanese government representatives and members of Pastoralist Unions from Darfur. The aim was to showcase land tenure and resource management

arrangements in similar rangeland contexts in East Africa which could be considered in Darfur, and thereby promote peaceful relationships over resources.

Eighteen people participated from Sudan, including high-level technical technicians from relevant institutions, such as Director Generals from Ministries of Animal Resources, Directors of Land Departments within ministries, and senior members of Pastoralist Unions whose role it is to advocate for sustainable pastoral livelihoods. The Darfur Regional Authority (DRA) was also represented.

Following this visit, a series of state seminars were held in Sudan where the participants shared the learning visit experiences with a wider audience of government, NGOs, and others. These well-attended seminars received national television coverage in some states and the resulting recommendations are currently the basis for important state level consultations on priority rangeland management and tenure issues.

## **UNEP Encourages Communities to get Involved in Managing their Environment**

Across Sudan, local communities are facing many effects of environmental change, including climate change, drought, population increase and movement, and in some areas,

conflict. These threaten the natural resource base that is needed for stable and sustainable livelihoods. Community environmental management can improve the sustainable and equitable governance of natural resources at the local level. UNEP has used Community Environmental Action Plans (CEAPS) to assess needs and strengthen overall community management of natural resources. The CEAP methodology was pioneered by UNHCR in Eastern Sudan, and UNEP has extended the approach to Darfur.

Three model CEAP processes were established in North Darfur by UNEP and implemented by the NGO Darfur Reconstruction Agency (DRA). Preparatory activities have commenced to expand these to six new sites - three in North Darfur and three in West Darfur.

UNEP has also been supporting the Forestry National Corporation (FNC) in the facilitation of three CEAP processes in South Darfur. The successful implementation of CEAPs has led to an expansion of this cooperation with FNC into other states in Darfur, with relevant agreements for 18 additional CEAPs. This will bring the total number of CEAPs implemented by FNC to 21.

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## **South Sudan**

### **UNEP Helping Protect Community Forests in South Sudan**

UNEP is piloting two community forestry projects in Central and Eastern Equatoria states. A National Consultative Workshop was held in September to bring together all stakeholders in the forestry sector and to raise awareness on community forestry in the country. The concept has been overwhelmingly well received by counterparts, including the Ministry of Agriculture, Forestry, and Cooperatives and Rural Development (MARFCRD) and UKAID, with recognition that there is a clear need to support the sustainable management of natural forests on communal lands as community forests currently constitute 95 percent of forests in South Sudan.

Following the government's endorsement for the pilot community forestry project, UNEP is conducting participatory resource mapping with local communities in the pilot sites. With the objective of building government capacity for providing technical and extension support to local communities, three officials from the federal and state Ministry of Agriculture and Forestry participated in a two-week course on participatory forest management in Arusha, Tanzania.

### **Management of Solid Waste in Juba, South Sudan**

UNEP is currently playing a pivotal role in improving the management of solid waste in Juba, the capital of the

Republic of South Sudan and one of the fastest-growing cities in the region.

Since mid-2012, and in collaboration with Juba City Council, Juba County Council, payams (local administrative areas), the Ministry of Environment and NGO partners, a number of activities have been initiated to improve waste management in Juba including: a preliminary environmental assessment of the existing dump site in Juba to assess the environmental consequences of the current open dumping of municipal solid waste; an initiative to improve the health and safety of waste pickers at the dump site by providing them with protective gear and developing health and safety guidelines; awareness-raising on waste and recycling by setting up environmental clubs, planning workshops on recycling, and training journalists on the subject of waste management; and undertaking waste composition analysis.

UNEP is slated to conduct a waste composition analysis for Juba in coming weeks to provide reliable data that can then be used as a basis for designing and developing waste and recycling systems in Juba.

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## Afghanistan

### UNEP Afghanistan gets approx. USD \$10m in Sustainable Development Funding

UNEP has obtained the following funding for its projects in Afghanistan that aim to promote the sustainable development of the country.

- USD \$6 million – the first Global Environmental Facility (GEF) Least Developed Countries Fund (LDCF) Climate Change Adaptation project for Afghanistan (see next entry for further details);
- The UK's Department for International Development (DFID) approved a "Community Resilience/DRR" project for Afghanistan with a budget of £1.25 million;
- The EC-funded Environment and Sustainable Management of Natural Resources (ENRTP) is supporting an Eco-DRR project in Afghanistan with a budget of USD \$250,000;
- The Government of Estonia will support a "Community Resilience/DRR" project for Afghanistan with a budget of €1.6 million;

### Afghanistan, UNEP Launch USD \$6 Million Initiative to Help Communities Adapt to Effects of Climate Change

The Government of Afghanistan, through its National Environmental Protection Agency (NEPA), has launched a USD \$6 million climate change initiative, the first of its kind in the country's history.

This landmark scheme - to be implemented by the United Nations Environment Programme (UNEP) and funded mainly by the Global Environment Facility (GEF) - aims to help communities that are vulnerable to the effects of climate change, such as drought, and to build the capacity of Afghan institutions to address climate change risk.

*"The Government of Afghanistan is showing a remarkable commitment to working with communities for a landscape approach to dealing with climate change in the country,"* said Michael Keating, UN Afghanistan Resident Coordinator, speaking from Bamyán in the Central Highlands, some 200km west of Kabul, in October.

UNEP identified Afghanistan as one of the countries most vulnerable to climate change, because of the potential impacts and its current limited capacity to react to these impacts. Climate change adaptation is especially important in developing nations, since those countries are predicted to bear the brunt of climate change effects.

Many of the agricultural activities in Afghanistan are dependent on the flow of rivers that originate in the Central Highlands area. However, natural ecosystems throughout the country are very fragile, and the degrading effects of increasing human activity in many areas are worsened by current climatic variability, mainly frequent droughts and extreme weather-induced floods and erosion.

*"In Afghanistan, 79 per cent of the population is engaged in agricultural activities, the majority at subsistence level. So by working with communities, or with people helping people, we in Afghanistan can build in stronger adaptation approaches to all our national development plans,"* said NEPA Director General Mostapha Zaher.

The scheme will be implemented in four regions: Badakhshan in the northeast, Balkh in the north, through the Koh-e Baba to Bamyán and Daikundi in the Central Highlands.

Interventions include improved water management and use efficiency; community-based watershed management; improved terracing, agroforestry and agro-silvo pastoral systems; climate-related research and early warning systems; improved food security; and rangeland management.



Climate change adaptation is now on the agenda in Afghanistan



79 percent of the population in Afghanistan is engaged in agriculture

Watershed management activities at village level will include tree-planting, the terracing of slopes or the gathering of wild seeds to re-plant over-grazed mountainsides. Education and the development of vocational skills for the communities also play a key role in this project.

UNEP key partners on the ground include the Food & Agriculture Organization (FAO) and the World Food Programme (WFP) supported by the United Nations Assistance Mission in Afghanistan (UNAMA) working together with the USAID-funded Biodiversity Programme of the Wildlife Conservation Society (WCS) and local Afghan organisations and communities

### 1000+ Clean Stoves for Afghan villages

Over 1,000 clean stoves have been distributed to remote villages in the Koh-e Baba area in the central highlands of Afghanistan in the last six months. The cookstoves initiative – run by the **Conservation Organisation for Afghan Mountains (COAM)**, with UNEP support – aims to cut indoor pollution, reduce dependence on fuelwood and therefore lessen environmental degradation.

Indoor smoke from traditional Afghan *tandoors*, or drum-shaped ovens which are used for cooking and heating, is a major health issue. More than 95 per cent of Afghanistan's estimated 30 million people burn wood and other solid fuels in their homes, making Afghanistan among the 10 countries worst affected by indoor pollution, according to the UN World Health Organization (WHO).

The inefficient use of dung and fuelwood is also adding to environmental damage. For example, at the current rate of deforestation, UNEP estimates that all Afghan forests will disappear within 30 years. COAM has also planted over 140,000 fruit, nut and forest tree saplings in the Koh-e Baba area since mid-2012.

### 5-Year Biodiversity Action Plan

The National Biodiversity Strategy and Action Plan for Afghanistan – the country's first of its kind - was completed in August and endorsed by the Convention on Biological Diversity (CBD). The five-year road map was compiled by a team of national experts from university, government and civil society partners with support from UNEP experts.

### UNEP Helps to Build Environmental Management Capacity in Afghanistan

UNEP continues to support Afghanistan's participation in a number of regional events and opportunities to contribute toward building environmental management capacity in the country. In the latter half of 2012 UNEP support was provided for the following:

- NEPA Deputy Director attended a one-month executive environmental leadership course at Berkeley University (USA);
- NEPA colleagues travelled to CMS, CBD and Climate training workshops;
- Four national representatives from the government attended the Conference of the Parties (COP) in October in Hyderabad, India.
- UNEP supported NEPA to finalise the country's Initial National Communication on Climate Change for submission to the UNFCCC at the end of 2012.

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## Democratic Republic of the Congo

### UNEP Aims to Protect Supply of Safe Water to Kinshasa

UNEP has initiated a landmark water scheme in Kinshasa, Democratic Republic of Congo (DRC) that aims to protect the Lukaya river basin that supplies almost 380,000 Kinshasa residents with safe drinking water.

The project builds on the recommendations of UNEP's Post Conflict Environmental Assessment (PCEA) of the DRC that identified 13 major "hot spots" of environmental degradation in and around urban centers in the country. Much of the environmental pressure is due to rapid population growth and unplanned development in urban areas that are also extremely poor and have inadequate basic infrastructure and local services.

The innovation of the pilot project – that will implement a practice called Integrated Water Resources Management (IWRM) – lies in the fact that it is the communities in the area which will lead the dialogue and coordination process, assess and reconcile water needs and set the priorities for effective water management. State and local authorities will also be engaged to help build capacity and disseminate the experience in other parts of the country. Indeed, one of the Millennium Development Goals is to halve, by 2015, the proportion of the population without sustainable access to safe drinking water.

A key concern in Lukaya is that the state-run water treatment plant needs to protect the drinking water it provides to Kinshasa residents, but activities of local enterprises such as farms (poultry, fish and agriculture), and sand and gravel quarries in the 350km<sup>2</sup> area are

having a major impact on water quality. The IWRM process creates a platform for communities and private entrepreneurs to decide on water priorities and implement practical measures to protect the water supply, which in this case comes from the Lukaya River. Practical actions can include planting buffer zones and silt traps along the river and near the water treatment plant to improve water quality by reducing sedimentation and mitigate flood risks, in addition to more effective use and management of land to protect the water supply.

The aim is to expand this pioneering project, funded jointly by the European Union and the United Nations to other parts of DRC, specifically in the Kivus and Katanga provinces. Investment is expected to be upscaled to around USD \$10 million over a five-year period.

### UNEP Country Programme for DRC gets Government Endorsement

Following a series of consultative meetings, the Ministry of Environment, Nature Conservation and Tourism (MENCT) endorsed UNEP's DR Congo Country Programme (2012-2015) in October. The programme sets the scope for UNEP's planned intervention in the country based on the priority recommendations of its Post Conflict Environmental Assessment (PCEA) report.

The geographic scope of the DRC Country Programme combines support for environmental governance and administration at both national and provincial levels, and includes implementation of field-based demonstration projects at the local level in collaboration with local authorities and community-based organisations. Substantively, UNEP's proposed country programme consists of three main components: (i) policy and technical



Providing safe drinking water is a UNEP priority in DR Congo

advisory support on integration of environmental issues in the UN system's humanitarian, development, peacekeeping and peace consolidation programmes; (ii) strengthening environmental governance, namely the policy and regulatory frameworks and capacity building at national and provincial levels; and (iii) support to sustainable natural resource management interventions, particularly through field-level pilot projects focusing on integrated water catchment management in urban and peri-urban areas, reducing the environmental impacts of mining and facilitating conflict resolution and transboundary collaboration in and around protected areas.

## DRC Aims to Stabilize Forest Cover by 2030

DR Congo aims to stabilize its forest cover by 2030 and to maintain at least 63.5 per cent of its territory covered by forests, according to the country's national framework on Reducing Emissions from Deforestation and Forest Degradation (REDD+) strategy launched at the climate conference in Doha in December.

Given the projections under "business as usual" scenarios, this corresponds to preventing about half of the deforestation and forest degradation that would have happened otherwise between 2013 and 2030, or about three billion tons of carbon dioxide emissions.

The DR Congo strategy represents the highest level of political engagement in the REDD+ process in the country, and builds on four years of intense preparatory work on REDD+ which has engaged thousands of Congolese stakeholders in the process.

The framework strategy is devised also with the ambition of putting the country onto a path of dynamic economic development (with double digit growth rates) based on the important REDD+ investments in the agriculture and energy sectors in particular. The REDD+ strategy has

seven pillars: agriculture, energy, forests, governance, demography, land use planning, and land tenure. A national REDD+ fund and a national scheme of payments for environmental services are being established as important financial mechanisms to implement the strategy, using the principle of linking REDD+ to measurable performance (related to carbon and multiple benefits).

## GRASP Supports Bio-Monitoring & Law Enforcement in DR Congo's Kahuzi-Biega park

The Great Apes Survival Partnership (GRASP), with funding from the Spanish Ministry of Environment and through the Spain-UNEP partnership for Protected Areas in support of LifeWeb, has been supporting bio-monitoring, law enforcement and conflict resolution in Kahuzi-Biega National Park, eastern Democratic Republic of Congo.

Kahuzi-Biega – a UN Educational Scientific Cultural Organization (UNESCO) World Heritage Site - is famous for its populations of Eastern Lowland Gorillas and elephants, but years of instability and insecurity have reduced the population of gorillas to half, and elephants to only an estimated 10 percent of its original population.

The project, implemented by the Wildlife Conservation Society, supports the Protected Area Authority in a number of key areas. The development of a conflict resolution strategy and active support has helped the park managers to resolve a number of conflicts, including the voluntary relocation of illegal settlers in a corridor area and slashed illegal activities inside the corridor by 40 per cent. Park rangers are also trained in bio-monitoring, including a health monitoring component which aims to improve the health of the human population as well as the gorillas.

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## Haiti

### UNEP Assesses Environmental Havoc Wreaked by Hurricane Sandy

In October, UNEP led a rapid multi-disciplinary damage assessment of the South Department (the main area where UNEP operates in Haiti) after Hurricane Sandy struck the island, causing widespread flooding and destruction.

Hurricane Sandy began impacting the South Department on 20 October. The strongest effects were felt on 24 and 25 October when the hurricane was closest to Haiti and was intensifying to a category three hurricane. Wind speeds reached between 100 and 120 km/h, but the

biggest impacts were from heavy rains and storm surges. In four days Haiti received 50 per cent of its average annual rainfall, and 2-metre storm surges blocked river and ravine outlets which led to flooding and devastation in the coastal areas.

On average, a tropical cyclone hits Haiti directly every two years. The cyclones are destructive due to the immediate effects of high winds and also due to the rain and its knock-on effects such as flooding, landslides and disease. In Haiti, the poverty of the inhabitants - linked to environmental degradation and the lack of environmental regulation - explains why even small scale cyclones can cause significant damage to physical infrastructure, private investment and the national economy.





Hurricane Sandy caused widespread environmental devastation

### **USD 11 million from Norway to Spearhead Innovative Sustainable Energy & Development Schemes in Haiti**

The UNEP Haiti Country Programme has secured USD 11 million of funding over the next three years from the Government of Norway to spearhead innovative sustainable energy and development projects in Haiti.

The programme maintains a strong focus on the sustainable development of the South Department and on the provision of sustainable and affordable energy on a national scale. Currently, less than a quarter of Haitians have access to grid electricity, and on average 10 percent of household income is spent on kerosene and candles, and even more on charcoal for cooking.

### **Over 5,000 Solar Lanterns Sold by EarthSpark**

The UNEP sponsored NGO EarthSpark reached a milestone with the sale of its 5,000<sup>th</sup> solar lantern under its social enterprise operation *Eneji Pwop* (meaning “Clean Energy” in Haitian Creole). The social enterprise now has 18 sales agents and is growing fast, illustrating the power of the approach and the strong demand for economic and efficient rural lighting products.

### **UNEP to Assist Haiti with Private Sector Renewable Energy Proposals**

In July, UNEP took on a new role in the energy sector, providing independent technical assistance to the Government of Haiti on private sector renewable energy proposals. Haiti aims to attract substantial international investment in the energy sector, but as yet does not have the skills and processes in place to deal with unsolicited or negotiated project proposals from the private sector.

UNEP is acting as a neutral expert party, providing detailed and at times confidential feedback on the merits and deficiencies of presented proposals and the potential for improvement to better match the needs of the state of Haiti. In the longer term it is hoped that this work will move from a reactive position to proactive, where UNEP supports the government in competitive tendering for large scale renewable energy power purchase agreements.

### **Haiti’s Fishermen Moving Further Offshore, Thanks to UNEP Assistance**

The UNEP-led marine fisheries sub-project completed the first round of practical action for fishing communities in the region. Capacity building activities for local fishing boatbuilders boosted efforts to move the fishing community further offshore, thereby both relieving pressure on the overfished coastline and increasing the catch from open waters.

### **Sustainable agriculture – a viable option for Haiti**

The UNEP sponsored Haitian NGO - Organization for the Rehabilitation of the Environment - completed its first round of sustainable agriculture activities and is now fundraising for an additional two years of investment. Activities completed to date include agroforestry capacity building and planting campaigns, anti-erosion installations and post harvest storage installations.

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# Environmental Cooperation for Peacebuilding

Under its Environmental Cooperation for Peacebuilding (ECP) pillar, UNEP aims to use environmental cooperation to transform the risks of conflict over resources into opportunities for peace in war-torn societies. This includes assessing and integrating environment and natural resource issues within the peacebuilding policies and strategies of the United Nations, as well as using the shared management of natural resources as a platform for dialogue, cooperation and confidence-building within and between conflict-affected countries. UNEP believes that effectively addressing the environmental dimensions of conflict and peacebuilding can only be done in partnership with a wide range of international and national actors. As a result, UNEP has developed partnerships with a number of peace and security actors including the UNDP Bureau for Crisis Prevention and Recovery, the UN Peacebuilding Support Office, the Departments of Peacekeeping Operations and Field Support in New York and the European External Action Service in Brussels.

## Haiti & the Dominican Republic: Preventing & Mitigating Conflict & Tension in the Border Area

Haiti, the poorest country in the Western Hemisphere, and the Dominican Republic, a middle-income country, share a 380 km border – an area that underscores the enormous disparity between the two countries in terms of social, economic and environmental wealth.

It is in the border zone that there is the most contact between the two populations, and the highest likelihood of tension, conflict and violence. It is here too that there is the greatest opportunity to have a positive impact on the complex relationship between the two countries.

Paradoxically the challenges in the border zone are driven both by the interdependencies of the two countries and by the stark contrasts in the economic, social and environmental conditions. These differences manifest themselves in the chronic poverty and severe environmental degradation seen in many areas on the Haitian side of the border, as well as illegal transboundary exploitation of natural resources.

Examples of some of the key issues in the border area include the illegal extraction and trade of natural resources (mainly charcoal, but also firewood and marine sources), transboundary agriculture, and large numbers of people crossing illegally from rural Haitian areas into the Dominican Republic to eek out a living. It is clear that urgent action is needed to reverse the deteriorating situation. If current trends continue, including practices similar to those which have caused much of the degradation in Haiti, soil erosion and a reduction in land productivity will drastically worsen on the Dominican side of the border. In addition, climate change is expected to adversely impact the environment.

As a result of the concerns and problems in the border area, UNEP was requested to complete a study of the zone by the Governments of Haiti and the Dominican Republic. UNEP is slated to release the results of this comprehensive 18-month study in the first half of 2013. The assessment



In Haiti severe deforestation has eroded land and livelihoods

covered both countries, however, emphasis was put on the Haitian side where the information is scarce and the environmental problems are more pressing.

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UNIFIL operates 10 electric vehicles for general purpose use around the headquarters

## Greening the Blue Helmets: Making the UN More Environmentally Sustainable

Efforts to support the UN's 16 peacekeeping operations in improving environmental and natural resource management continue following the launch of **Greening the Blue Helmets: Environment, Natural Resources and UN Peacekeeping Operations**, a report that analyzed how peacekeeping missions around the world affect, and are affected by, natural resources and the broader environment.

Response to this flagship report has sparked widespread debate, focusing on the multiple benefits of integrating environmental and natural resource management into peacekeeping operations. These benefits, which go far beyond environmental protection, range from saving lives and money to improving community relations and the implementation of peacekeeping mandates.

The report has generated extensive interest in the UN and among governments, international organizations, training institutions, non-governmental organizations and academia since its publication in May; global news coverage has also been significant.

UNEP has showcased the report at a number of key events, including at the annual meeting of the International Forum for the Challenges of Peace Operations (May 2012); the Military Green 2012 conference organized by the European Defense Agency (June 2012); the Office for the Coordination of Humanitarian Affairs-led Inter Agency Standing Committee meeting (June 2012); the UN headquarters in New York - hosted by the UN Departments of Peacekeeping Operations and Field Support (DPKO and DFS) (September 2012); the NATO School's environmental management course (October 2012); and at a special briefing to UNEP's Council of Permanent Representatives (CPR) in Nairobi (November 2012).

A number of current peacekeeping missions have independently adopted environmental policies and undertaken a range of measures to improve resource efficiency. The UN Interim Force in Lebanon (UNIFIL) has introduced several environmental practices, including the use of electric cars at the mission's headquarters, energy-efficient power generation and the establishment of a community-led recycling plant.

Simple behavioral changes such as reducing car idling times, switching off equipment, or adjusting room temperature settings have resulted in a 15 percent reduction of annual energy consumption at the UN Integrated Mission in Timor-Leste (UNMIT). If every mission adopted similar measures, the UN could save at least USD \$50 million in fuel costs every year.

Building on the positive momentum created by the report, UNEP, together with DPKO and DFS, has developed a five-year technical cooperation framework that aims to implement the main recommendations from the first part of the report by 2017. This involves developing operational guidelines, implementing projects in the field, providing training, and developing performance monitoring and compliance mechanisms. The framework has received the full support of the Under-Secretary Generals of UNEP, DPKO and DFS. At a meeting in New York on 20 September 2012, the three aforementioned USGs committed to signing a joint statement that will fully endorse the cooperation framework and pave the way for more environmentally sustainable peacekeeping.

A new **Training Programme** – largely based on the report - to support the UN's 16 peace operations in improving their management of the environment and natural resources was launched in September by UNEP. The e-learning course, which is expected to be delivered to thousands of military, police and civilian peacekeepers in coming months, is divided into four modules. Module 1 is active, and the remaining modules will be launched in 2013.

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### SG Calls on UN Entities to Assist in Natural Resources Management

Secretary-General Ban Ki-moon called on United Nations entities “to collaboratively leverage their respective skills and knowledge to inform natural resources management assistance” in his October 2012 report on “**Peacebuilding in the aftermath of conflict**”.

The SG also reiterated that land and natural resources are key drivers of conflict, and even more so, of relapse into violence. He stated that “Important substantive progress has been made since then (the 2010 progress report) to address this emerging concern, reflected in a number of reports, policies, resolutions and practical guidance for

*mediators working on resource-related conflicts and for practitioners addressing land, renewable resource and extractive issues.”*

The SG highlighted the partnership co-developed by UNEP to address natural resources and conflicts. He noted that, “In 2011, for example, the United Nations-European Union partnership on natural resources, conflict and peacebuilding produced four sectoral guidance notes, on extractive industries, renewable resources, land and capacity-building. Work is under way to integrate those various approaches into country programmes.”

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### From Curse to Opportunity: Natural Resource Management Manuals Launched in Support of Conflict Prevention

A new set of manuals – as noted in the aforementioned SG’s report on Peacebuilding in the aftermath of conflict - to improve natural resource management in order to reduce the risk of conflict was launched by the UN in October.

The manuals will provide technical assistance to UN and European Union (EU) staff, in addition to national stakeholders. The goal is to equip both individuals and organizations with the skills and tools needed to understand, anticipate, prevent, and mitigate potential conflicts over natural resources.

The five components of the toolkit - Land, Extractive Industries, Renewable Resources, Strengthening Capacity & Resource-Rich Economies – all aim to demonstrate how well-managed natural resources can prevent conflict or contribute to peace and sustainable development in war-torn nations.

The exploitation of high-value natural resources, including oil, gas, minerals and timber, for example, has often been cited as a key factor in triggering, escalating or sustaining wars around the globe. Furthermore, increasing competition for diminishing renewable resources, such as land and water, is on the rise, compounded by environmental degradation, population growth and climate change.

The guidance notes were also devised within the context of the so-called «resource curse», a paradoxical phenomenon in which natural resource-rich countries underperform resource-poor ones in economic growth and development. Countries suffering from the resource curse often have weak institutions, are over dependent on natural resources and thus vulnerable to shocks, and lack appropriate income redistribution mechanisms, all



of which contribute to the eruption of violent conflict. Once conflict has erupted, natural resources can provide financing to armed groups, extending the duration of the conflict, delaying peace processes, and having the potential to reignite conflict after peace has been achieved.

The toolkit - authored by the UN Environment Programme (UNEP), the UN Department of Economic and Social Affairs (UNDESA), the UN Development Programme (UNDP), the UN Human Settlements Programme (UN-HABITAT), the UN Department of Political Affairs (DPA), and the Peacebuilding Support Office (PBSO) – was financed by the EU’s Instrument for Stability and coordinated by the UN Interagency Framework Team for Preventive Action.

The UN Development Group and the Executive Committee on Humanitarian Affairs also published a 30-page guidance note on Natural Resources in Transition Settings based on the aforementioned manuals. This note – that was officially endorsed by the UN in October – is designed to help UN Country Teams and UN Missions assist in natural resource management issues and to help them define what role the UN can play both on the ground and in the political arena. UNEP played a key role in the development of this guidance note.

The **toolkits** are available online.

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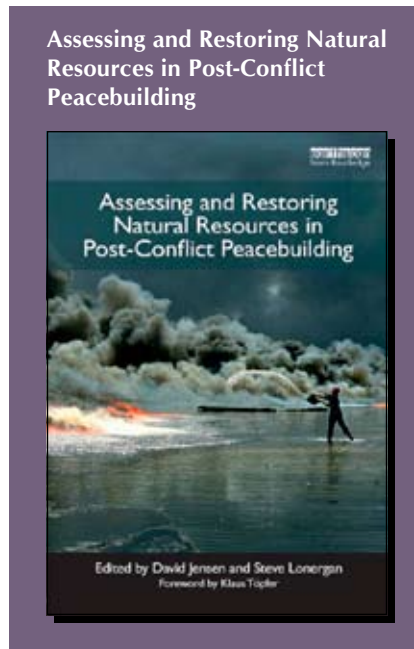


## New Book Examines How Natural Resources can Spark Conflict, but also Create Peace

A flagship book that documents and analyzes the devastating impact of war on the environment in 23 conflict-affected countries and territories across the globe was released on 6 November by the United Nations Environment Programme (UNEP), the Environmental Law Institute (ELI), the University of Tokyo, and McGill University following five years of unprecedented field research.

**Assessing and Restoring Natural Resources in Post-Conflict Peacebuilding** highlights how post-conflict reconstruction efforts based on the sustainable use of natural resources and the environment can foster lasting economic and social growth in war-torn nations. In fact, re-establishing access to land and water are often the two most important priorities at the rural level.

This set of case studies, edited by David Jensen, a staff member of UNEP's Post-Conflict and Disaster Management Branch and Steve Lonergan, professor emeritus at the University of Victoria, is the result



of an extensive collaboration between 35 specialists from the United Nations, government ministries, non-governmental organizations, academia and the military.

The research spanned the globe, including case studies from Iraq, Sierra Leone, Haiti and Afghanistan relating to a wide range of topics such as the assessment of the environmental impacts of war, the restoration of key natural resources, the impact of road infrastructure on land rights, the remediation of polluted sites, and the risks of depleted uranium contamination.

The release of the book coincided with the International Day for Preventing the Exploitation of the Environment in War and Armed Conflict. Secretary-General Ban Ki-moon reemphasized the need for "a greater international focus on the role of natural resource management in conflict prevention, peacekeeping and peacebuilding." He also highlighted that "the resource curse must no longer be allowed to undermine the security of fragile and

conflict-affected states and the foundations of sustainable development."

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## 2013 Policy Report on Women & Natural Resource Management in Post-Conflict Settings

Women in fragile and conflict-affected states not only often play a central role in managing natural resources for their livelihoods and that of their families and communities, but have also been shown to consistently prioritize equitable access to natural resources, such as land, as an important part of peacebuilding. However, a recent analysis reveals that to date, the different gender dimensions of natural resource use and management are not systematically taken into account in peacemaking and peacebuilding processes, despite the critical role that natural resources can play in the reconstruction period.

In response, UNEP, in partnership with UN Women, the UN Peacebuilding Support Office (PBSO) and the UN Development Programme has produced a first draft of a joint policy report analyzing the relationship between women and natural resources in the context of peacebuilding. The report, which features an analysis of risks and opportunities for women with regard to natural resource use and management in post-conflict settings, as well as programmatic recommendations, is intended to raise awareness and influence decision-makers to take into consideration the importance of gender roles and support women's participation and empowerment in natural resource management in the context of peacebuilding.

The final report is expected to be released in 2013.

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### Poor Management of Natural Resources & Climate Change are Inherent to Ongoing Crisis in Sahel

Poor governance of natural resources and climate change are among the many factors driving the ongoing crisis in the Sahel region in northern Africa, according to the UN, the European Union, and other key international players.

In the Sahel, that majority of the population is directly dependent on natural resources for their daily survival. Climate change is compounding existing vulnerabilities, and historical data shows that the climate in the region is already changing, with increased temperatures, recurrent droughts, and more frequent and more severe floods.

This is expected to lead to widespread food and water security problems throughout Africa, and in particular in the Sahelian countries. There is also competition and conflict over natural resources in the region, mainly over land, water and high-value resources.

During an October meeting with the EU and other agencies, UNEP expressed its interest in participating in addressing natural resource needs and climate change within the framework of the UN Integrated Strategy for the Sahel (slated for publication in the coming weeks), led by UN Special Envoy to the Sahel - Romano Prodi. The EU is already implementing its Strategy for Security and Development in the Sahel.

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Livelihoods that depend on natural resources, as does this herder in the grasslands of Mali, are particularly vulnerable to the changes in the climate



## Disaster Risk Reduction

The disaster risk reduction (DRR) pillar of UNEP's Disasters and Conflicts programme focuses on countries that have been identified as vulnerable to natural hazards, and on human-made disaster events with an environmental component. As well as producing environmental risk assessments, UNEP seeks to strengthen the hand of Member States for environmental management through developing responsive strategies, building capacity and implementing pilot projects to reduce identified risks, thereby contributing to long-term disaster risk reduction. UNEP also contributes to global policy development by producing policy toolkits and training modules that demonstrate good practices and lessons learned in reducing risks, and provides environmental data and expertise on sustainable management of shared natural resources.



The conservation and restoration of ecosystems such as mangroves can play an essential role in reducing disaster risk from floods, droughts and storms

### UNEP-EC Launch €2.5m Collaboration on Ecosystem-based Disaster Risk Reduction

UNEP and the European Commission launched a €2.5 million project designed to promote, innovate and scale-up ecosystem management approaches for ecosystem-based disaster risk reduction (Eco-DRR). This Eco-DRR project tackles disaster risk reduction, adaptation to climate change-related risks and sustainable development in an integrated way.

Healthy and well-managed ecosystems, such as forests, coral reefs, and wetlands, provide natural protection

against hazards and support the livelihoods of individuals, thus reducing their vulnerability to the impacts of natural hazards such as floods and landslides.

Implemented over three years (2012-2015), the project will field test Eco-DRR approaches to demonstrate their community benefits and cost-effectiveness in four highly vulnerable countries: Afghanistan, DR Congo, Haiti and Sudan. Lessons from the field will be used to influence national, regional and global policies and build consensus on mainstreaming Eco-DRR in local and national development planning in specific sectors, such as water and land-use planning.

### PEDRR sets Advocacy and Capacity-Building Goals for 2013-15

The Partnership for Environment and Disaster Risk Reduction (PEDRR) agreed on its priority actions for 2013-2015, during a Strategic Planning Retreat held on 26-27 November, in Gland, Switzerland. PEDRR aims to further increase leadership and visibility in the environment-DRR policy arena and achieve greater scale and reach.

Four key areas were prioritized: (1) global policy advocacy linked to Rio+20 outcomes and planning for the post-2015 global DRR framework and the post-

2015 sustainable development goals; (2) scaling up PEDRR's capacity building interventions across regions and targeted countries; (3) bolstering scientific research and knowledge; and (4) enhancing internal coordination amongst partners, with a small PEDRR secretariat to be set-up and supported within UNEP. PEDRR partners also voted to formalize its governance structure and membership guidelines. Established in 2008, PEDRR has expanded to 14 members, with additional organizations expressing interest in gaining membership. Through PEDRR, partners gain leverage in collectively advocating for Eco-DRR, based on sound environmental science and practitioners' knowledge. UNEP is a founding member of PEDRR.

### UNEP Promotes Environmental Solutions for Disaster Prevention

UNEP highlighted the importance of forests in reducing local exposure to coastal hazards when speaking at a high-level plenary discussion on mega-disasters in August at the International Disaster Reduction Conference in Davos, Switzerland.

Drawing from the lessons of the Great East Earthquake in Japan in 2011 which triggered a massive tsunami, UNEP's Disaster Risk Reduction Programme Manager Muralee Thummarukudy stated: "Coastal forests could not have withstood the tsunami – nor would have most engineered structures. Nonetheless, the Government of Japan is now planning to establish significant stretches of coastal greenbelts as a disaster prevention measure because having such natural infrastructure in place

would limit development activities and settlements close to the shoreline."

UNEP, together with the International Union for Conservation of Nature, also organized a PEDRR side event (with approx. 50 attendees) on the challenges of translating disaster risk reduction into practice at the country level. Senior government representatives from Kerala, India, and from Côte d'Ivoire, provided their perspectives on the slow up-take of DRR, citing governance and capacity constraints. Panel members suggested areas for future action, including strengthening integrated DRR and development planning, and field-testing low-cost ecosystem management-DRR solutions to build local capacities.

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Disaster Risk Reduction is one of the key areas of activity for UNEP



## APELL Expands Regional Influence Through New Research Centers

The Awareness and Preparedness for Emergencies at Local Level (APELL) programme - which seeks to identify and mitigate risks in industrialised communities - has established two new research centers at Bahia Blanca University in Argentina and at Tsinghua University in China. The centers are intended to serve as a formal knowledge sharing network that can further enhance disaster preparedness and response planning in vulnerable areas. Since negotiations for their establishment began in late 2011/early 2012, both host institutions have partnered with UNEP to promote the APELL methodology at the regional level. For instance in October, Bahia Blanca University co-hosted an APELL technical visit for Chilean partners and collaborated with UNEP to further advance the APELL approach among key stakeholders in Chile. In China, a Tsinghua University representative participated in UNEP's Expert Working Group (EWG) meeting on Chemical Accident Prevention Preparedness, to brief members of the EWG on a variety of related processes pertaining to safety management and emergency preparedness in the country.

UNEP has also continued to build and implement its APELL communication and dissemination strategy through strategic partnerships. Collaboration with the Joint UNEP/OCHA Environment Unit (JEU) and the UN Economic Commission for Europe (UNECE) resulted in the integration of UNEP's APELL and Flexible Framework methodologies in the online training course "Beyond Response" and has also contributed to the development of an Industrial Accident Training On-line Platform. An additional APELL expert communication and cooperation network platform, which will assist APELL practitioners worldwide in the exchange of lessons learned and knowledge sharing, is being finalized by UNEP in partnership with the JEU. Both online training courses and the APELL expert network platform are being hosted in the joint UNEP/JEU/UNECE "Environmental Emergencies Center" online clearinghouse for enhanced outreach worldwide.

Complementing efforts to enhance awareness on available tools and strategies for emergency preparedness, APELL is also supporting a series of pilot project demonstrations in West Africa (with Ghana as a hub) and East Africa (with Kenya as a hub) that will be undertaken in 2013. These 18-20 month pilot projects are intended to demonstrate to Ghanaian and Kenyan partners the benefits of improving local level preparedness for industrial accidents through multi-level stakeholder engagement. UNEP has also secured financial contributions from the private sector, following negotiations held during 2012 with the International Council of Chemical Associations (ICCA), to carry out these sub-regional pilot demonstrations.

Following a request from local authorities in the Atsinanana region of eastern Madagascar, UNEP is



working with the Office for the Coordination of Humanitarian Affairs (OCHA) in Madagascar to improve emergency preparedness and promote the dissemination of the APELL approach in the region's mining sector. UNEP's provision of technical assistance is particularly timely as Ambatovy, a large-tonnage, long-life nickel and cobalt mining enterprise located in Madagascar, is finalizing large-scale mining operations in the region. UNEP is also seeking to promote the uptake of APELL methodologies in the mining sector in the broader African region through awareness raising workshop organized such as the one held in Zambia on 10-11 December 2012 in cooperation with the UN Economic Commission of Africa (UNECA).

In November, UNEP partnered with the Swedish Civil Contingencies Agency (MSB) and the Council of the Baltic Sea States (CBSS) to organize a high level event in Stockholm aimed at developing joint strategies to minimize the occurrence and effects of everyday accidents and crises in the Baltic Sea Region (both industrial and natural disasters). The event included participants from the 11 states of the Baltic Sea region and the European Commission (Denmark, Estonia, Finland, Germany, Iceland, Latvia, Lithuania, Norway, Poland, Russia, Sweden and the EC) and was supported with funding from the Swedish Institute.

Finally, in order to capture both the main achievements of UNEP's APELL Programme over the past 25 years, as well as the outcomes of the Global APELL 25th Anniversary Forum that was held in Beijing, China in 2011, UNEP launched a new publication and video documentary on the 25th anniversary of the APELL programme.

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An APELL Emergency drill was conducted in Bahia Blanca, Argentina in December 2010

# The Environment and Security Initiative (ENVSEC)

The Environment and Security Initiative (ENVSEC) is an inter-agency initiative of international organizations comprising UNEP, UNDP, the Organization for Security and cooperation in Europe (OSCE), the UN Economic Commission for Europe (UNECE), and the Regional Environmental Centre for Central and Eastern Europe (REC). The ENVSEC partnership aims to reduce tensions and increase cooperation through the joint management of natural resources and environmental threats in Eastern Europe, South Eastern Europe, the Southern Caucasus and Central Asia.



## Republic of Moldova & Ukraine agree to better manage once-pristine Dniester River basin

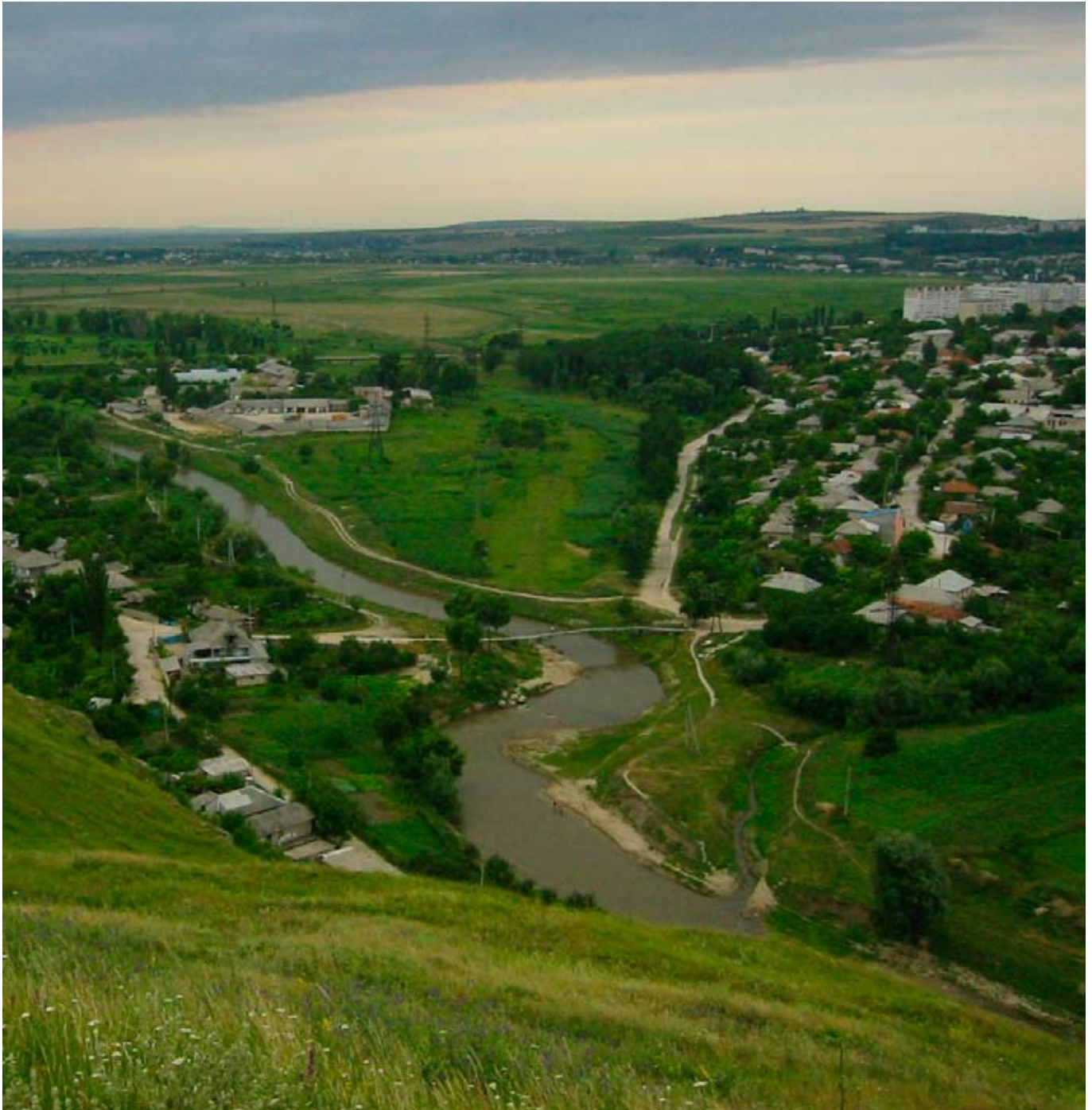
In a landmark treaty signed on 29 November the Republic of Moldova and Ukraine agreed to improve the management of the Dniester River basin, home to some 8 million people in Eastern Europe. Specifically the treaty – which is the culmination of eight years of collaboration between interested parties and organizations – provides a framework for cooperation on water pollution, water

flow regulation, conservation of biodiversity and protection of the environment surrounding the Black Sea. It also addresses data exchange, public participation and cooperation in emergency situations.

The 1,380 km river – which originates in the Ukraine, runs through Moldova for 400 km, and enters Ukraine again before flowing into the Black Sea – supplies drinking water to a large part of the basin and beyond (including the city of Odessa, Ukraine), provides hydropower generation, and supports a thriving fishing sector. In recent years however severe problems have been discovered,







including poor water quality, declining biodiversity and deteriorating ecosystems along the river. In addition, the impacts of climate change, such as increasingly frequent and devastating floods, are affecting the basin.


The negotiations surrounding the Treaty and the drafting of the actual document were jointly managed by the ENVSEC partners: the United Nations Economic Commission for Europe (UNECE), the Organization for Security and Cooperation in Europe (OSCE) and UNEP.

The treaty is a pioneering example for the region in the post-Soviet era. It significantly broadens the existing

cooperation agreements to cover the entire river basin and all sectors that are important for the management and protection of shared waters. The treaty establishes the bilateral Dniester Commission to facilitate sustainable use and protection of the basin. It is also an important step in the implementation by the Republic of Moldova and Ukraine on their obligations under the UNECE Water Convention.

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## Publications – recent releases




**On the Hoof:  
Livestock trade in Darfur**

The report analyses the livestock trade in Darfur since 2003 and how it has adapted to the constantly changing dynamics of the conflict.

Launched: September 2012,  
Khartoum

Information available [here](#)




**Environmental Governance  
in Sudan:  
An Expert Review**

This study provides an assessment of the environmental policies and institutions in Sudan. Authored by two senior Sudanese environmentalists.

Launched: November 2012,  
Khartoum

Information available [here](#)




**Assessing and Restoring  
Natural Resources in  
Post-Conflict Peacebuilding**

A flagship book that documents and analyzes the impact of war on the environment in 23 conflict-affected countries and territories.

Launched: November 2012,  
New York

Information available [here](#)

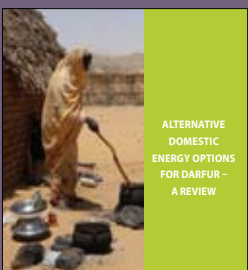


**République Démocratique du  
Congo: Évaluation Environnementale  
Post-Confit**

A full version, in French language, of the DR Congo Post-Conflict Environmental Assessment.

Launched: December 2012,  
Geneva

Information available [here](#)



**Alternative Domestic  
Energy Options for Darfur:  
A Review**

This study looks beyond stoves and explores alternative options for domestic energy in Darfur.

Launched: August 2012,  
Khartoum

Information available [here](#)

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