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.

Ogoniland report reveals severity of oil contamination

Released in August, UNEP’s scientific assessment in Ogoniland revealed that pollution from more than 50 years of oil operations in the region has penetrated further and deeper than previously thought. The unprecedented UNEP study was conducted at the request of the Nigerian government and covered more than 200 oil-impacted sites in Ogoniland and the surrounding creeks.

The President of Nigeria, The Hon. Goodluck Jonathan, was formally presented with the Environmental Assessment of Ogoniland report by the Director of UNEP’s Division for Environmental Policy Implementation, Mr Ibrahim Thiaw, at State House in Abuja. Present at the report handover were the Chairman of the Presidential Implementation Committee, The Most Reverend Matthew Kukah; the Minister for the Environment, Mrs Hadiza Ibrahim Mailafiya; Ogoniland’s Paramount Ruler, His Majesty King G.N.K. Gininwa, and other senior representatives from Ogoniland and the Rivers State and federal governments.

The assessment has found that exposure to hydrocarbons is putting the health of some community members at serious risk and identifies eight emergency measures which warrant immediate action. The most serious case of groundwater contamination was at Nisisioken Ogale, in Eleme local government area, where the drinking water in wells was contaminated with benzene, a known carcinogen, at levels over 900 times above the World Health Organization (WHO) guideline. UNEP welcomed the Rivers State Government’s intervention in late August to provide alternative water supplies to the affected communities.

The report findings include:

- The Ogoni community is exposed to petroleum hydrocarbons in outdoor air and drinking water, sometimes at elevated concentrations. They are also exposed through dermal contacts from contaminated soil, sediments and surface water.

- At two-thirds of the land sites which were assessed in detail, the soil contamination exceeds Nigerian standards. In 49 cases, UNEP observed hydrocarbons in soil at depths of at least 5 metres.

- The impact of oil on mangrove vegetation has been disastrous. The fisheries sector is suffering due to the destruction of fish habitat in the mangroves and highly persistent contamination of many of the creeks.

- The wetlands around Ogoniland are highly degraded and facing disintegration.

- Remote sensing revealed the rapid growth in the past two years of artisanal refining, whereby crude oil is distilled in makeshift facilities.

- Overlapping authorities and responsibilities between Government ministries and a lack of resources within key agencies is having serious implications for environmental management on-the-ground, including enforcement.

- The control, maintenance and decommissioning of oilfield infrastructure in Ogoniland are inadequate. Industry best practices and Shell Petroleum Development Company of Nigeria (SPDC) own procedures have not been applied.

According to the report, all sources of ongoing contamination must be brought to an end before the clean-up of the creeks, sediments and mangroves can begin. Due to the wide extent of contamination, a combination of clean-up approaches will need to be considered, ranging from active intervention for cleaning the top soil and replanting mangrove to passive monitoring of natural regeneration.
Among the recommendations are:

- The establishment of three new institutions in Nigeria is recommended to support a comprehensive environmental restoration exercise and an initial capital injection of US$1 billion contributed by the oil industry and the government, to cover the first five years of the clean-up project;

- The establishment of a public health registry for the entire Ogoniland population would determine health trends and take proactive action individually or collectively where impacts related to long-term exposure to hydrocarbon pollution are evident;

- A thorough review of Shell Petroleum Development Company procedures for oil spill clean-up and remediation; and

- Developing local nurseries to help ensure that healthy, indigenous plants will be available to regenerate heavily impacted mangrove stands.

In August, the President decided to establish a government committee to review UNEP’s report and make recommendations on immediate and long-term remedial actions. UNEP also provided a follow-up note to the government outlining the key issues for consideration during the next 12 months to ensure that a full-scale environmental restoration of Ogoniland and the surrounding creeks can begin at the earliest possible stage. This Transition Phase is recommended to maintain momentum and enable detailed planning to begin in the period between the release of UNEP’s environmental assessment and the commencement of a clean-up operation.

UNEP has reaffirmed its readiness to assist the government with further steps to support a clean-up of Ogoniland, if formally requested.

UNEP wishes to thank everyone who contributed to the assessment, including the people of Ogoniland, the multi-disciplinary project team and the key partners, including the Rivers State University of Science and Technology.

The information generated by UNEP’s study has amounted to more than 1,000 pages, comprising the report and 67 separate site-specific fact sheets prepared for the sites investigated in detail by UNEP. The report and fact sheets are available for download from the UNEP website at: www.unep.org/nigeria

Contact: Henrik Slotte, Chief, PCDMB, at: henrik.slotte@unep.org
Major DR Congo assessment launched

UNEP’s DR Congo Post-Conflict Environmental Assessment: Synthesis for Policy Makers was launched in October in Kinshasa to coincide with a high-level forum on forests and climate change. UNEP’s Executive Director, Mr Achim Steiner, and the DR Congo Minister of Environment, H.E. Mr José Endundo, presided over the event, together with the Minister of Forests of the Republic of Congo (Brazzaville), H.E. Mr Henri Djombo, and the Deputy Special Representative of the UN Secretary-General in DR Congo, Mr Fidèle Sarassoro.

The press conference was attended by around 100 local and international journalists, representatives of international organizations and donors. Speaking at the event, Minister Endundo praised the assessment and made a strong plea for continued UNEP engagement in the DR Congo, in order to ensure follow up and implementation of the report recommendations.

The launch followed government endorsement of UNEP’s draft post-conflict environmental assessment report during a technical meeting, with senior government officials in Kinshasa in August.

The major two-year assessment was conducted by UNEP in conjunction with the DR Congo’s Ministry of Environment, Nature Conservation and Tourism (MENCT), with funding from the Government of Norway. The assessment underlines the global significance and extraordinary potential of the country’s natural and mineral resources set against a backdrop of prolonged conflict and considerable development challenges. It highlights successful initiatives and identifies strategic opportunities to restore livelihoods, promote good governance and support the sustainability of the DRC’s post-conflict economic reconstruction and reinforce ongoing peace consolidation.

According to the report, the DR Congo could become a powerhouse of African development given it contains half of Africa’s forests and water resources, and trillion-dollar mineral reserves.

However, the assessment concludes that country’s rapidly growing population (nearly 70 million) and intense international competition for raw materials are placing multiple pressures on the DR Congo’s natural...
resource base. Also, patterns of illegal use of natural resources have helped to fuel conflict and human tragedies. UNEP’s report warns that if these trends are left unchecked, it will be difficult for the DR Congo to achieve a sustainable future.

The key findings include:

- Despite being Africa’s most water-rich country, the DR Congo faces a drinking water crisis with around 51 million people lacking access to safe drinking water.

- The country has the highest level of biological diversity in Africa; yet 190 species are classified as critically endangered, endangered or vulnerable on the IUCN Red List of Threatened Species.

- As the tropical world’s second largest forest carbon sink, the DR Congo’s forests are a critical global ecosystem service provider.

- Among the successes, the Congolese Wildlife Authority has secured the Virunga National Park since 2007 by stepping-up anti-poaching patrols, stopping the destruction of forest for charcoal production and relocating Internally Displaced Persons.

- The country is one of the world’s most important mining centres. Its untapped mineral reserves are of strategic importance to the global economy and are estimated to be worth US$24 trillion.

- More than half of the DR Congo is covered with mining, forestry and oil exploitation and exploration permits, some which overlap with World Heritage sites. Yet concessions have provided negligible work opportunities and have done little to improve the well-being of Congo’s population.

- The Congo basin supports Africa’s largest inland fisheries with an estimated production potential of 520,000 tonnes per year. While at the national level this resource is under-exploited, there are many instances of serious overfishing pressures at the local level.

- The most alarming climate change-related issue is the vulnerability of rain-fed small-scale agriculture on which the majority of Congolese rely for subsistence.

Four main policy actions are recommended in UNEP’s assessment to promote sustainable wealth creation, poverty alleviation and long-term peace building: (i) capitalizing on the DR Congo’s emerging social economy to generate employment; (ii) maximizing synergies through area-based development programming; (iii) integrating economic valuation of ecosystem services into all development planning, and (iv) engaging in a ‘green economy’ transition to achieve sustainable development.

The assessment advocates for a fundamental rethinking of the DR Congo’s ‘frontier approach’ to the use of its natural resources – to gaining greater value from them to help provide funding for reconstruction. The legacy of a century of mining in various parts of the country, particularly in Katanga, has created considerable environmental liabilities and a new, modern approach to mining is required.

Coinciding with the synthesis report’s release, a UNEP-sponsored documentary, ‘Sortir du chaos’ (Conservation from Chaos), aired on at least seven national TV stations, including the national public broadcaster, RTNC.

The synthesis report and documentary are available via UNEP’s bilingual (French and English) website at: www.unep.org/drcongo

Contact: Hassan Partow, Programme Manager, UNEP Country Programme for the DR Congo, PCDMB, at: hassan.partow@unep.org

Fuel fires in Kenya’s capital

A major fuel spill and subsequent fire broke out on 12 September 2011 in the Mukuru-Sinai slums of Nairobi, Kenya. More than 100 people were killed and an equal number were hospitalized with serious burns.

In response to an official request from the Kenyan Ministry of Environment and Mineral Resources (MEMR), the UNEP-OCHA Joint Environment Unit (JEU) formed an expert team to assess the extent and nature of the pollution and to assist with the decision-making and priority setting by the authorities and other actors for follow-up activities at the site.

The mission’s main conclusion was that the fire was not caused by a pipeline explosion as initially reported, but from an industrial accident that caused a large amount of petrol to enter the stormwater drainage system. The event was further compounded by pre-existing, chronic pollution from other uncontrolled industrial effluent being released into the stormwater drainage system and the Ngong River.

Detailed recommendations were provided to improve the preparedness for environmental emergencies at both the national and local levels in Kenya. The Rapid Environmental Emergency Assessment on the fuel spill and fire in the Mukuru-Sinai slums of Nairobi is available here.

Contact: Rene Nijenhuis, Humanitarian Affairs Officer, Joint UNEP/OCHA Environment Unit, at: nijenhuis@un.org
Thailand floods response

In late 2011, Thailand experienced its worst flooding in 50 years. The floods inundated more than six million hectares of land in 66 of the country’s 77 provinces, including urban Bangkok, although preventive efforts helped to protect the city centre. More than 13 million people were affected from July to December 2011. A flood of this magnitude impacts all aspects of the environment and causes considerable environmental impacts.

At the government’s request, a Post Disaster Needs Assessment was launched in the country by the World Bank. Along with other UN Agencies, UNEP was invited to take part. In November, a UNEP staff member with post-crisis expertise was deployed in the flood-impacted areas to provide inputs for the environmental section of the needs assessment.

The Post Disaster Needs Assessment exercise resulted in quantitative estimates of the environmental damage during the floods as well as specific recommendations for environmental restoration and prevention of similar floods in the future. In this report, the focus is on possible hotspots and issues with potential cumulative environmental impacts, such as disaster waste management, sand disposal, or mangroves and wetlands sedimentation. The needs assessment was submitted to the Thai Government in December and is expected to form the basis of follow-up actions in the short and medium term. It is due to be formally endorsed in early 2012.

Contact: Muralee Thummarukudy, Senior Programme Officer, PCDMB, at: muralee.thummarukudy@unep.org

To assess the environmental impacts of the recent Thailand floods, UNEP participated in the joint Post Disaster Needs Assessment exercise
Assistance following Ghana flash flood

On 26 October 2011, Ghana’s Accra region was also affected by a major flood event which killed 14 people and left an estimated 17,000 homeless. In response to a request from the UN Resident Coordinator, the UNEP-OCHA Joint Environment Unit (JEU) deployed an environmental expert from 1-15 November.

The mission’s focus was to provide assistance with disaster waste management, which was the major underlying cause of the flash flooding. The massive amount of waste discharged from the flood washed into surrounding rivers and lagoons, adding to the existing environmental stress. The number of incidents of cholera also reportedly increased. Detailed recommendations were provided on flood risk reduction and associated waste management measures.

The rapid disaster waste management assessment available here.

Contact: Rene Nijenhuis, Humanitarian Affairs Officer, UNEP-OCHA Joint Environment Unit, at: nijenhuis@un.org

UN system study on nuclear safety

Following the nuclear emergency in Japan which began unfolding in March 2011, the UN Secretary-General, Mr Ban Ki-moon highlighted the need for the international community to rethink nuclear energy and safety issues at the global level. Mr Ban requested a UN system study on the implications of the accident at the Fukushima nuclear power plant. The International Atomic Energy Agency (IAEA) was the coordinating entity, while the primary contributors to the report included OCHA, UNICEF, the United Nations International Strategy for Disaster Risk Reduction (ISDR), WHO and UNEP.

The report was presented at a High-level Meeting on Nuclear Safety and Security on 22 September in New York during the 66th session of the General Assembly. The study addresses a variety of areas, including environment, health, food security, sustainable development and the nexus between nuclear safety and nuclear security. It also presents system-wide views on how to improve disaster risk preparedness. More information available here.

In addition, at the IAEA’s invitation, UNEP staff attended the 22nd Regular Meeting of the Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE) held in Paris in December. The Nuclear Energy Agency of the OECD hosted the meeting which was attended by representatives from 14 participating organizations. Organizations presented their activities and discussed the lessons learned from emergency response to the Fukushima Daiichi nuclear power plant accident.

Contact: Asif Zaidi, Operations Manager, PCDMB, at: asif.zaidi@unep.org
Training toolkit to assist humanitarian action

A new training toolkit addresses the different ways in which the environment can be taken into account in humanitarian and early recovery contexts. Released in November, the toolkit was designed by UNEP and a French NGO partner, Groupe URD, to assist international and national actors working in the humanitarian sector.

The toolkit is available in French and English and consists of 11 modules covering a broad range of themes such as: water management and ecological sanitation; waste management; reduction of and alternatives to the use of firewood; humanitarian logistics and the environment.

Entitled Integrating the environment into humanitarian action and early recovery, the toolkit is intended to be a living resource that will continually evolve as it is used and applied. Modules are meant to be adjusted to the local context and to training needs and priorities. The training was developed with the support of the Flemish International Cooperation Agency of Belgium and can be accessed online here (English) and here (French). In addition, 1,000 DVDs were produced for international distribution and may be distributed upon request.

On 15 November, UNEP also launched the French version of its online Resource Centre on Mainstreaming the Environment into Humanitarian Action. More than 150 resources including guidelines, tools and training (including the new toolkit) related to humanitarian action and the environment are now available through the resource centre, thanks to contributions from more than 20 organizations. By making such resources easily accessible, the resource centre aims to equip humanitarian practitioners with the skills and knowledge to better mainstream the environment into their work. See: http://postconflict.unep.ch/humanitarianaction/

Contact: Natalie Barefoot, Programme Officer, PCDMB, at: natalie.barefoot@unep.org

Environmental emergencies conference

A Wilton Park Conference on “Environmental Emergencies: Strengthening the Multilateral Humanitarian and Environmental Response” was held from 12-14 September in Montreux, Switzerland. The UNEP-OCHA Joint Environment Unit provided substantial logistical support for the event, which was attended by over 50 high-level participants from Member States, the private sector, civil organizations and the UN, including Under-Secretary-General, Sha Zukang.

With the UN Conference on Sustainable Development, Rio+20, scheduled for mid-2012, this event contributed to raising awareness of the importance of preparedness and prevention of environmental emergencies and disasters. In particular, substantive inputs provided by representatives from the Advisory Group on Environmental Emergencies, with support of the UNEP-OCHA Joint Environment Unit, fed into the Zero Draft of the Rio +20 Outcome Document, which subsequently called “for increased coordination among national, regional and international levels for a robust response to environmental emergencies”.

On a related note, the former chair of the Advisory Group on Environmental Emergencies for 2009-2011, H.E. Ambassador Toni Frisch of Switzerland, was nominated as Senior Advisor to Under-Secretary-General Zukang for the UN Conference on Sustainable Development.

Contact: Rene Nijenhuis, Humanitarian Affairs Officer, UNEP-OCHA Joint Environment Unit, at: nijenhuis@un.org

www.unep.org/disastersandconflicts