

ANNUAL REPORT 2011

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United Nations Environment Programme



UNEP ANNUAL REPORT 2011

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MESSAGE FROM THE UNITED NATIONS SECRETARY- GENERAL



BAN KI-MOON
UN SECRETARY-GENERAL

Addressing inequalities, overcoming poverty, maintaining peace and building prosperity for the entire human family depend on rejecting the old economics of heedless pollution and the excessive exploitation of the world's natural capital.

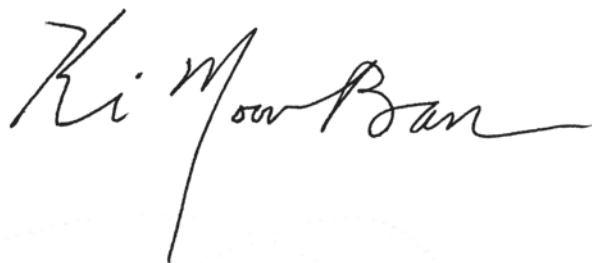
The global population has reached 7 billion people. In just five years, we will add another half billion people – all needing food, jobs, security and opportunity. Environmental, economic and social indicators tell us that our current model of progress is unsustainable. Ecosystems are under stress. Economies are faltering. We need to chart a course that strengthens equality and economic growth while protecting our planet.

In less than six months, leaders from governments, business and civil society will meet in Rio de Janeiro for the UN Conference on Sustainable Development. Rio+20 is a once-in-a-generation opportunity to put the world on a more sustainable path – to

expand on the blueprint provided by the 1992 Earth Summit and create the future we want.

I expect UNEP to play a central role in helping to deliver on the promise of Rio+20 by continuing to provide the cutting-edge ideas the world needs. UNEP is a pioneer of the green economy, which is one of the themes of Rio+20. It is also responsible for much of the science on which a sustainable future will be built – from its involvement in the Intergovernmental Panel on Climate Change to its own Global Environment Outlook family of assessment reports. It is essential that we act on the science of sustainability.

This Annual Report shows the full range of UNEP's work for environment and development. It also illuminates how the UN system as a whole is increasingly Delivering as One with respect to sustainability. Anyone interested in making green economy and sustainability principles an integral part of their decision making will find this volume rich in theory and practice. I commend it to a wide global audience.




"The global population has reached 7 billion people...

We need to chart a course that strengthens equality and economic growth while protecting our planet."

INTRODUCTION BY THE EXECUTIVE DIRECTOR



ACHIM STEINER
UNEP EXECUTIVE DIRECTOR

Propelled by the global preparations for Rio+20, set against the backdrop of the ongoing economic and emerging employment crisis, 2011 marked a year of reflection and re-engagement on fresh ways of scaling-up and accelerating sustainable development.

UNEP, through its Green Economy work involving partners world-wide, provided to the Rio+20 regional preparatory meetings compelling analysis indicating investing two per cent of global GDP in 10 key sectors of the economy could—backed by the right kinds of creative policy switches—grow economies and generate jobs but in ways that keep humanity's footprint within ecological boundaries.

Indeed as the year closed, support for taking forward the Green Economy in the context of sustainable development and poverty eradication at Rio+20 had gained traction across the vast majority of member states.

The work also acted as a catalyst for improved coordination within the United Nations System in part via the Environmental Management Group, which as UNEP Executive Director, I have the honour to chair.

The EMG's two landmark reports in 2011—one on desertification and the other on the Green Economy—underpinned a fresh and evolving determination of a 'One UN' to put environmental sustainability at the centre of its work. 2011 also witnessed rapidly intensifying

debate among governments, civil society and the private sector on the second major theme of Rio+20—an institutional framework for sustainable development—with UNEP providing advice and support on the options in respect to the international environmental governance dimension.

The message from the UNEP Governing Council earlier in the year, and echoed through the Rio+20 preparatory meetings, was that the status quo is not an option.

The structures, architecture and delivery systems founded in a previous century need a fresh sense of realism and direction if the aims, ambitions and opportunities of a new century are to be realized.

In terms of strengthening UNEP as it stands today, 2011 also marked a moment when many of the reform measures introduced in 2008 really began to flourish.

*An internal evaluation, drafted in 2011, concludes that **out of 21** expected accomplishments in the UNEP Programme of Work, **15 are fully achieved**, **5 partially achieved** and **1 insufficiently met**.*

The Multilateral Organization Performance Assessment Network (MOPAN) review was also supportive of what UNEP has achieved so far in terms of, for example, results-based management and project accomplishments.

This year's annual report is also rich in cutting edge assessments and projects, some of which were launched several years ago but reached completion or took on fresh relevance in 2011.

Let me perhaps single out some of special relevance and resonance for UNEP.

In August, we handed over the **Environmental Assessment of Ogoniland** to Nigerian President Goodluck Jonathan—the first report ever to provide to the government and to the public systematic and scientific evidence on the nature, extent and impacts of oil contamination dating back over half a century.

We believe that the findings can catalyse not only significant environmental and social improvements in the region but a strategic policy on how the oil industry there will function in a way that truly benefits the lives and livelihoods of these communities now and in the future. The decoupling report by the UNEP-hosted International Resource Panel estimated that the consumption of natural resources will triple by 2050 to some 140 billion tonnes while highlighting some countries that are starting to de-link GDP growth from resource use.

The environmental changes that have swept the planet over the last twenty years were spotlighted in a new compilation of statistical data—**Keeping Track of our Changing Environment: From Rio to Rio+20**.

The worrying decline in bee colonies in many parts of the world, and the links to agricultural productivity in respect to lost pollination services, was also brought into sharp focus through a UNEP-led assessment that highlighted 12 possible factors from losses of flowering plants to insecticides and air pollution.

UNEP's two assessment reports on the health, agricultural and climate benefits of fast action on short-lived climate forcers were also in many ways special, building on over a decade's worth of work on black carbon and other 'non-CO₂' pollutants.

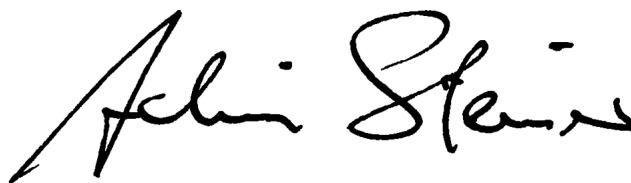
They and the 'emissions gap' report for the Durban climate conference offer additional shining examples of how the organization's science base is responding to new challenges and fresh opportunities for member states alongside the maturing and evolving partnerships being forged with research centres world-wide.

Often, when environmental proposals are made, there can be those registering concern that the costs may be high or heavy—yet often environmental action can trigger cost savings, innovation and technology leaps.

At the World Summit on Sustainable Development in 2002, nations demonstrated forward-looking leadership and governance by requesting UNEP to spearhead a broad partnership to phase out lead in petrol across the developing world.

In 2011 UNEP supported a peer-reviewed paper by scientists on the value to the global economy of the phase-out: the answer, annually over 1.2 million less premature deaths and savings of \$2.4 trillion a year in terms of reduced health costs to declines in criminality.

In a sense this brings the work of UNEP in 2011 full circle, back to the Green Economy with its potential to deal with multiple challenges and assist the international community realize and implement sustainable development while fulfilling the promise and the intent of world leaders when they met in Rio nearly 20 years ago.

A handwritten signature in black ink, reading "Achim Steiner". The signature is fluid and cursive, with a long, sweeping underline that extends to the left.



International Children's Painting Competition on the Environment 2011

The theme of the competition was "Life in the Forests".

Global winner by Trisha Co Reyes (13) from the Philippines.

www.unep.bayer.com/en/international-children_s-painting-competition.aspx



AMINA MOHAMED
UNEP DEPUTY EXECUTIVE DIRECTOR

A TRIBUTE TO WANGARI MAATHAI

It was during the 1993 Vienna World Conference on Human Rights that I first met Wangari Maathai. Our paths would cross many times in the following years.

She was a woman of great integrity, who set and achieved high standards in all aspects of her life. Women today are striving to meet these kinds of standards.

She was a trail-blazer in so many ways: becoming the first woman in East and Central Africa to obtain a PhD and, in 2004, becoming the first environmentalist to receive the Nobel Peace Prize for, in the words of the Nobel Committee, standing “at the front of the fight to promote ecologically viable social, economic and cultural development”.

Throughout her work, she devoted just as much time to her role as a mother, bringing up her children well.

So numerous were her achievements, I often wondered if she had more hours in the day than the rest of us.

Wangari was the first to roll up her sleeves and get her hands dirty, whether for tree planting or at demonstrations to free political prisoners.

She was an unflinching champion of democracy and was thorough, consistent and unwavering in her beliefs and convictions.

For UNEP, she was an excellent partner who never tired of supporting the organization's ideals, such as her co-patronage of the Billion Tree Campaign. She represented UNEP with grace and conviction when requested.

Yet despite her heavy workload and long string of commitments, you would never hear her complain. Wangari took all the challenges of her work in her stride. For her, nothing was a burden.

Throughout her life, people from all backgrounds would seek her counsel on issues relating to the environment, development or democracy. She always made time for them.

She is one of a small handful of individuals whose legacy will truly be felt on local, national and international scales. In Kenya, the Greenbelt Movement she founded continues her work of championing women's rights and the environment. The 30 million trees the organization has planted to date across Africa will stand tall in her memory.

Elsewhere in Africa, she championed the continent's tropical forests, calling for better government management of natural resources, such as in the Congo Basin.

The tributes that continue to be paid to her work by presidents, prime ministers and other leaders are testament to the great impact she made beyond her native Kenya.

Above all, Wangari will be remembered as a great listener, an excellent teacher, a wise counselor and a faithful friend.



© Ricardo Medina/The Green Belt Movement



2011: A year of transformation and progress

2011 proved a landmark year in which many of the transformational reforms, launched in 2008, really began to bear fruit in terms of a transition to a results-based, more effective and more responsive UNEP.

Strategies to increase regional staffing and funding under the theme of 'strategic presence' also registered wins as did the move to restructure and integrate the institution's work with the Global Environment Facility (GEF), within UNEP's divisions.

Meanwhile, the analysis and policy options to realize a sustainable century through the lens of a Green Economy, in the context of sustainable development and poverty eradication, gained almost universal support as preparations for Rio+20 in June 2012 entered into high gear.

As the debate and discussion on Rio+20's other key theme—an institutional framework for sustainable development—took off, member states including their representatives at the UN in New York, increasingly looked to UNEP to provide expert advice on how such a framework might be evolved and structured, particularly in respect to the International Environmental Governance dimension.

The science base was strengthened through more focused convening and partnerships in areas such as keeping the global environment under review. Emerging issues and climate research blossomed in 2011 through processes including the developing of the 'state of the planet' **Global Environment Outlook-5** report; cutting-edge climate studies such as **Bridging the Gap** and the **Foresight Process** chaired by the UNEP chief scientist.

As UNEP enters 2012, governments and the secretariat of the environment programme of the UN can take credit for the fact that 40 years after the Stockholm Conference on the Human Environment the organization has never been better placed to meet the challenges and realize the opportunities emerging four decades after its founding.

It is also better equipped to meet the very real economic challenges which have marked the past three years due to the on-going financial and economic crisis, as a result of efficiency gains achieved in 2011, including among others rationalizing staffing levels in line with government requests.

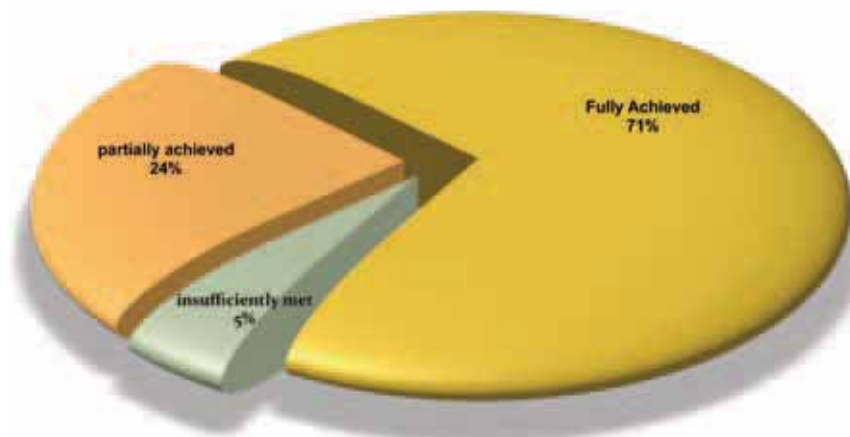
PERFORMANCE

An internal review completed in 2011 by the new Office for Operations in consultation with the Committee of Permanent Representatives has brought into sharp focus where important managerial improvements

have been made and the way forward corporately as well as across the six sub-programmes that underpin UNEP's Programme of Work (PoW) and its Medium Term Strategy 2010-2013.

- Out of the 21 expected accomplishments in the PoW, 15 have been fully achieved including in respect to clean energy; capacities to integrate ecosystem management into development; strengthening environmental law; policy and control systems for harmful substances, and stimulating demand for resource efficiency.
- Five expected accomplishments were partially achieved including work on climate adaptation, scientific knowledge and outreach and seizing investment opportunities for resource efficiency.
- One expected accomplishment was insufficiently met which was ecosystem services and financing.

EXPECTED ACCOMPLISHMENTS





© Marine Current Turbines

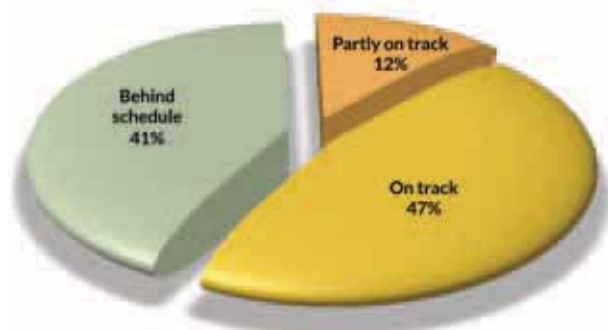
UNEP's main delivery vehicles are projects: in 2011 there were over 150 active ones. The results of around 115 are already being monitored through the new Programme Information Management System (PIMS).

- Out of these 115 projects, just over 50, or 45 per cent, are on track with some of the best performing in the climate change and environmental governance portfolios.
- 14, or 12 per cent, are partly on track with several of these in the disasters and conflicts and resource efficiency portfolios.
- 46, or 40 per cent, are behind schedule and thus the object of priority corrective management actions during the course of the biennium.

Gender integration has also been scaled-up since the gender programme was introduced in 2006.

- Close to 75 projects now have gender integrated in their activities or have gender-specific activities.

PROJECT PORTFOLIO DELIVERY





© Corbis

PERFORMANCE: CLIMATE CHANGE

Supporting the UN Framework Convention's processes and decisions has been one of the core activities, as has building the capacity of member states in areas ranging from technology needs, accessing carbon markets, science, strengthening the ability to participate in the negotiations and outreach.

Over the biennium, UNEP's climate change work has further focused on 'flagship' areas—Ecosystem Based Adaptation; Clean Tech Readiness and readiness for taking part in Reduced Emissions from Deforestation and Forest Degradation (REDD+) initiatives.

- By 2011, UNEP was assisting 20 countries to implement clean energy and energy-efficient policies and activities including Argentina, Bangladesh and Vietnam - exceeding the indicator target by 4 and up from 8 in 2009.
- In 2011, UNEP had mobilized over \$200 million-worth of clean energy investments, up from \$100 million in 2009 and exceeding the indicator target.

Total UNEP spending on this sub-programme was
\$84 million
 or just over
80 per cent
 of the allocation in 2010-2011



UNEP



The African Carbon Asset Development Facility, founded by UNEP in 2009 and its Risoe collaborating centre in cooperation with Standard Bank and supported by the German government, had by 2011 approved over a dozen projects ranging from a cement fuel switching project in Kenya to a solar lighting one in Rwanda.

To date, over 70 high-quality project applications and expressions of interest have been submitted from 20 African countries including 14 Least Developed Countries to the Facility.

The UNEP Technology Needs Assessment, supported by GEF and a pathway to the development of Nationally Appropriate Mitigation Actions, is supporting well over 30 developing countries including Argentina, Bangladesh, Côte d'Ivoire, Georgia and Vietnam.

Funding mobilized for emissions cuts from land use and forestry including via the UN's capacity-building and technical assistance programme Reducing Emissions from Deforestation and Forest Degradation (UN-REDD) was \$150 million in 2011, exceeding the \$50 million target and up from \$25 million in 2009.

UN-REDD PROGRAMME

UN-REDD—which involves UNEP, UNDP and FAO—has expanded beyond Bolivia, Indonesia, the Democratic Republic of Congo and the other nine pilot countries to provide support in over a dozen nations.

- In respect to scientific knowledge and outreach, hits on UNEP climate related web sites has grown from 45,000 in 2009 to close to 170,000 in 2011, significantly exceeding the indicator target of around 65,000.
- The number of UNEP climate assessments cited as being incorporated into development plans has climbed from 5 in 2009 to 12, slightly falling short of the indicator target of 14.
- The number of countries now having concrete adaptation plans is 4— while this falls short of the target indicator by quite a way, it reflects a new realism in terms of pin-pointing where UNEP has actually intervened.

DISASTERS AND CONFLICTS

In 2011, UNEP continued to expand the delivery of state-of-the-art assessments and field-based capacity building and technical support covering countries including Afghanistan and Haiti.

Total spending was \$36 million or 95 per cent of the 2010-2011 allocation.

- The amount of international funding pledged to UNEP for activities in which the environment is used to reduce conflict and disaster risk totalled just under \$10 million in 2011, up from \$2.6 million in 2009—an increase of over 250 per cent.
- UNEP is assisting 16 countries of which 12 have adopted policies to mitigate post-conflict and post-disaster environmental risks—this amounts to 75 per cent of the 16 countries concerned, 15 per cent below the indicator target.
- The percentage of inter-agency post crisis needs assessments and early recovery plans factoring in and pricing environmental damage has grown from 75 per cent to 100 per cent, 10 per cent more than the target indicator.

The 2011 and 2012, UN Workplans in Sudan and the Consolidated Appeal Process in South Sudan now contain environmental 'markers' as a result of UNEP's support.

UNEP has screened over **820** projects in Sudan and provided guidance to the UN system on over **480** in order to mitigate environmental impacts.

- The Environment and Security Initiative, a broad partnership to which UNEP is the secretariat, is also assisting 20 countries in the broader European region, including Central Asia. Total funding between 2010-2011 was around \$8.7 million

ECOSYSTEM MANAGEMENT

Mainstreaming the ecosystem approach into national planning and budgets through UNEP projects and building on some of the pioneering work of the UNEP-hosted project, **The Economics of Ecosystems and Biodiversity**, proved one of the more challenging exercises for UNEP in 2010-2011.

Indicator targets set in areas such as ecosystem services and financing may have, in hindsight, been over-ambitious and several key projects in the sub-programme also suffered from a lack of funding.

Total expenditure for ecosystem management in 2010-2011 was \$66 million or just over 90 per cent of the allocation.

- UNEP assisted in increasing the number of national development plans integrating ecosystem services as an important component to 14 in 2011—exceeding the indicator target by 4.
- The number of countries with assessment capabilities to identify changes in ecosystem services has grown from 25 in 2009 to 29 in 2011, two short of the indicator target.
- The goal of assisting six countries to factor priority ecosystem services into medium term budget allocations was insufficiently met with only one country achieving this.



ENVIRONMENTAL GOVERNANCE

Areas such as assisting governments to achieve their environmental goals; incorporating the environment into UN Development Assistance Frameworks (UNDAFs); supporting the work of the Multilateral

Environment Agreements (MEAs) and boosting coherence; and a One UN approach in respect to the environment, met and in many cases exceeded the indicator targets set by the institution.

The evolving role and increasing relevance and effectiveness of the UN's Environmental Management Group, chaired by the UNEP Executive Director, was also in evidence in 2011 not least from the production of two landmark reports—one entitled **Global Drylands aimed at enhancing the UN system's support for the UN Convention to Combat Desertification** and the other, **Working Towards a Balanced and Inclusive Green Economy**.

Total expenditure was **\$95 million** or **over 90 per cent** of the 2010-2011 allocation.

The number of environmental policy issues targeted by UNEP that are now addressed in a complementary manner by other UN entities and MEAs rose **from 6 in 2009 to 10 exceeding the target for 2011 by 2**.

The number of policies and legislative actions drafted by governments as a result of UNEP support rose **from 12 in 2009 to 24 in 2011— 8 more than the target indicator**.

The number of international organizations, operating sub-regionally, regionally or globally, applying UNEP guidance has climbed **from 10 in 2009 to 16**.

By 2011, **50** countries requested support from UNEP with national development plans that include environmental sustainability — **up from 18 in 2009**.

17 countries have included environmental sustainability in their development policies with support from the Poverty and Environment Initiative and the number of UNDAFs incorporating environmental issues in countries where UNEP has intervened reached 66 in 2011 — **14 more than the target indicator and 30 more than in 2009**.



HARMFUL SUBSTANCES AND HAZARDOUS WASTE

The strong performance of the sub-programme is evidenced by the increasing number of countries engaging in the various chemicals and waste MEAs—notably the Stockholm, Rotterdam and Basel conventions—as well as in the Strategic Approach to International Chemicals Management.

Meanwhile, the wide range of guidance and tools relating to harmful substances and hazardous wastes that have been successfully prepared and deployed by UNEP and its partners resulted in multiple requests for further assistance and support.

Total expenditure was \$52 million or 100 per cent of the 2010-2011 allocation.

- By 2011, the number of countries and businesses which have strengthened their ability to better manage chemicals and hazardous wastes through the SAICM reporting process stood at 162, 92 more than in 2009 and more than 60 above the target indicator.
- Over 140 projects in 103 countries have been approved for funding under the SAICM Quick Start programme, up from 75 in 2009 and over 40 more than the target indicator for 2011.
- Nearly 50 countries have adopted incentives and other market-based policies to promote environmentally-

friendly products and processes that reduce releases of and exposure to harmful chemicals and hazardous wastes—up from just over 30 in 2009.

- The number of governments and other stakeholders applying UNEP policy advice, guidelines and tools rose to just under 100 in 2011, up from 50 in 2009 and well above the indicator target.
- By 2011, 10 additional hazardous substances were put on the international chemicals agenda against an indicator target of 3.

RESOURCE EFFICIENCY

The Resource Efficiency and Sustainable Consumption and Production sub-programme made good progress on mainstreaming resource efficiency, including sustainable consumption and the Green Economy. Good progress was made in working with business and the financial community and in promoting the life-cycle approach including capacity-building work on eco-labelling.

The International Resource Panel launched two assessment reports, one on decoupling natural resource use and environmental impacts from economic growth; and one on recycling rates of metals.

At a global level, the consensus reached on a 10 year Framework of Programmes on Sustainable Consumption and Production during CSD 19—though not formally adopted—is the result of UNEP and partners' efforts that have worked for

global recognition of sustainable consumption and production practices as an objective for sustainable development.

Total expenditure was

\$59 million or **97 per cent**
of the 2010-2011 allocation.

The number of national and local governments supported to adopt policies, regulations, or economic instruments promoting resource efficiency and / or sustainable consumption and production was **46, exceeding the target of 20**

The number of businesses supported in adopting resource-efficient management practises was 330, exceeding the target of 300.

30 governments (exceeding the target) and 216 large-scale businesses (more than double the target) were supported to make investments and are adapting technologies favouring resource efficiency or sustainable production and consumption.

The number of national cleaner production centres adding the business case for resource efficiency and / or sustainable consumption and production to their portfolio of activities and advisory services was 14, one short of the target.

17 national and local governments (exceeding the target of 15) and 242 businesses (far exceeding the target of 100) have adopted regulations, economic instruments or voluntary measures influencing customer purchases.

UNEP GEF RESTRUCTURING

UNEP's Division of the Global Environment Facility (DGEF) was disbanded at the beginning of 2011 as part of a key reform aimed at mainstreaming, anchoring and making the institution's GEF-funded activities more relevant and responsive to UNEP's overall activities.

The decision is already delivering positive results, improved performance and positively changing the way UNEP works.

By the end of 2011, 60 per cent or nearly \$96 million of the \$170 million-worth of projects submitted to the GEF for support were 'blended' with UNEP's cross divisional activities – a rise from an average of around 11 per cent over previous years.

- 12 staff from across UNEP's divisions are now collaborating with GEF staff in order to prepare projects in areas from disasters and conflicts to chemicals and access and benefit sharing of genetic resources.
- The former Directorate of the DGEF consisted of 11 staff: the new GEF Coordination Office employs seven which represents a 36 per cent reduction.
- In 2011 several key UNEP/GEF funded projects were completed.

- “**Water funds**” for improved management of ecosystems have been established between communities and municipalities in Latin America.
- In partnership with the GLOBE International Commission, a capacity building project has led to increased commitment to legislative change among parliamentarians in 40 countries in respect to global environmental issues.
- A project in the Bahamas has increased marine protected areas including the new Westside National Park by 250 per cent to over 550,000 hectares in support of global targets under the Convention on Biological Diversity.
- The Africa Cogeneration project, a UNEP and African Development Bank initiative, has made investments worth close to \$21 million and realized over 20 Megawatts of cogeneration.

SCIENCE THE FORESIGHT PROCESS: 21 ‘EMERGING ISSUES’ FOR THE 21ST CENTURY

In 2011, UNEP undertook a significant consultative exercise to more comprehensively identify and rank areas of likely future environmental change and ones which need to be firmly on the radar of policymakers.

The **Foresight Process** brought together a panel of **22 distinguished scientists** drawn from developed and developing countries to review an initial list of 95 emerging issues.

The process was informed by experts within UNEP and close to 430 external scientists who responded to a questionnaire.

The **21 issues** identified and rated by the Panel will now inform UNEP’s current and future PoW.

They include:-

- Aligning **governance** to the challenges of global sustainability.
- New challenges for ensuring **food safety and food security** for **9 billion** people.
- Managing the unintended consequences of **climate change mitigation and adaptation**.
- The new rush for land: responding to new **national and international** pressures.
- Solving the impending **scarcity of strategic minerals** and avoiding **electronic waste**.
- The **decommissioning** of nuclear reactors and their environmental consequences.
- Coping with **migration** caused by new aspects of environmental change.
- Consequences of **glacier retreat**: economic and social impacts.

www.unep.org/publications/ebooks/ForesightReport/



STRATEGIC PRESENCE

EVOLVING UNEP DELIVERY IN THE REGIONS

Significant progress has been made in realizing the strategic presence policy adopted in 2009.

The financial and human resources of the UNEP regional and country offices have been increased in order to assist regions and countries in areas such as enhanced capacity-building and technology support; execution of projects including ones supported by GEF and implementation of MEA policies, targets and timetables.

The strategic presence policy has also assisted UNEP make important strides in building 'One UNEP' and the UN's 'Delivering as One' through for example working with a wider number of UN Country teams and contributing to UNDAFs.

- In 2008-2009, the number of staff working in the regions stood at **240**, up **22 per cent** from 2006-2007.
- By the end of 2011, that number had increased to close to **260**—a further rise of **8 per cent**.

The largest increase in staffing numbers, achieved mainly through out-posting from the centralized divisions, has occurred in Africa, Asia Pacific and Latin America and the Caribbean.

- Since 2006 the **funding from the Environment Fund** to the regional offices, excluding staff costs, has grown from **\$10 million to around \$15 million in 2011**.

HUMAN RESOURCES : 2006/07 TO 2010/11

+32 per cent

Overall regional human resource increase

+30 per cent

Professional Regional Offices-core staff increase

4 to 45

Increase in number of professional out-posted staff from Divisions

+20 per cent

Professional project staff increase:

14

Number of Regional Offices core posts to be frozen for the 2012/13 biennium

Support staff increase:

+7 per cent

for Regional Offices-core support staff and

+17 per cent

for out posted support staff

- Over the same period, **extra budgetary allocations** have climbed by around a third from just under **\$40 million to over \$60 million**.

PERFORMANCE THE INDEPENDENT MOPAN REVIEW

In 2011, the Multilateral Organization Performance Assessment Network (MOPAN), led by Switzerland and the UK, assessed UNEP based on information collected at its headquarters and in eight countries: Bangladesh, Bolivia, Brazil, Burundi, Ecuador, Nepal, Peru, and Tanzania.

The survey targeted UNEP's direct partners, peer organizations and MOPAN donors based in-country and at headquarters.

SOME KEY MOPAN FINDINGS

UNEP has made considerable progress in becoming a more **results-oriented** organization.

UNEP's new matrix management approach also provides a more **coherent** and results-oriented approach to **programming**.

UNEP was rated highly for mainstreaming environmental governance and integrating **gender equality as thematic priorities** in to policies, projects and programmes.

UNEP is highly valued by its stakeholders for its contributions to **policy dialogue**, its respect for partner views and perspectives and its significant **influence on environmental policies**.

UNEP's Programme Performance Reports present generally clear information on **progress** toward expected accomplishments but UNEP needs to strengthen the use of performance information.

The organization could strengthen and make more evident its process for resource allocation.

UNEP has developed a **partnership strategy** to institutionalize and enhance its engagement and collaboration with partners.

It **manages** relationships with a **complex array of partners**: governments; businesses and industries, academic and research institutions, local authorities, parliamentarians, international non-governmental organizations, and intergovernmental organizations, including UN agencies.

UNEP's Evaluation Office works independently from programmatic divisions and **meets UN norms and standards for independence**. It has also established acceptable approaches to ensure the **quality of evaluations**.

Many stakeholders agree that UNEP offers a **global reference point** on a wide range of critical environmental issues of concern for the international community and commended the organization for the way it uses its normative role and related **scientific expertise**.

UNEP has integrated a **focus on human well-being** in a number of initiatives such as its **Green Economy Initiative** and the **Poverty and Environment Initiative**. However, there is no evidence of a wider programmatic approach or organizational policy in this area.

Many respondents mentioned UNEP's contributions to policy dialogue and its significant influence on environmental policies. Its contributions to policy dialogue also received the highest score of all key performance indicators in the survey.



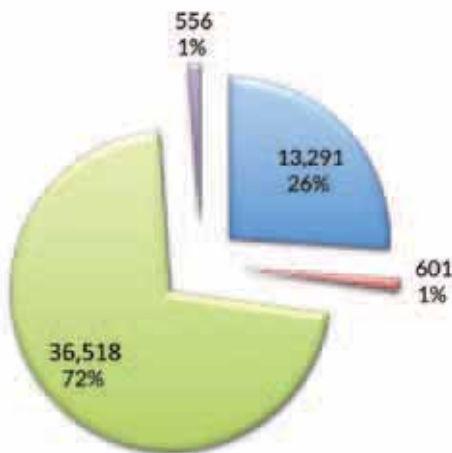


2

CLIMATE CHANGE

TOTAL EXPENDITURE 2011
CLIMATE CHANGE
\$50,965,000

- Environment fund Expenditures
- Regular budget expenditures
- Trust Funds & Earmarked contributions
- Programme Support



All figures in 000s

ADDRESSING THE CLIMATE CHANGE CHALLENGE

The climate change sub-programme focuses on strengthening the ability of countries, particularly developing countries, to integrate climate change responses into national development processes.

RESULTS TARGETED

Mitigating Climate Change

UNEP supports countries in making sound policy, technology and investment choices that lead to greenhouse gas emission reductions, with a focus on scaling-up clean and renewable energy sources, energy efficiency and energy conservation.

Reducing Emissions from Deforestation and Forest Degradation (REDD)

UNEP supports developing countries to reduce emissions from deforestation and degradation through the development of REDD+ strategies, including the consideration of parallel benefits such as biodiversity and livelihoods. UN-REDD is the vehicle for this initiative, in partnership with the United Nations Development Programme (UNDP) and the Food and Agriculture Organization (FAO).

Adapting to Climate Change

UNEP assists countries reduce their vulnerability and use ecosystem services to build natural resilience against the impacts of climate change.

Enhancing scientific knowledge and communication

UNEP works to improve understanding of climate change science and raise awareness of the impacts of climate change among policy-makers and the public.

2011 THE YEAR IN CLIMATE CHANGE

- The findings of the two-part study, **REDDy – Set – Grow: Opportunities and Roles of Financial Institutions in Forest-Carbon Markets**, stressed that the financial sector must step up its engagement in the emerging green market, and made the case for its improved regulation to facilitate this, as well as calling for Forestry-based Carbon Markets.
- UNEP released a **Guide for Practitioners on Mainstreaming Climate Change Adaptation into Development Planning**. Drawing on experience and lessons learned by the UNEP-UNDP Poverty-Environment Initiative, the guide provides practical guidance on how governments and other national agencies can mainstream climate change adaptation into national development planning.
- The Intergovernmental Panel on Climate Change, established by UNEP and WMO, launched its Special Report on **Renewable Energy Sources and Climate Change Mitigation (SRREN)**. The report indicated that under the most optimistic scenario close to 80 per cent of the world's energy supply could be met by renewables by mid-century if backed by the right enabling public policies.
- A UNEP-World Meteorological Organization report – **Integrated Assessment of Black Carbon and Tropospheric Ozone**, launched in mid-June, revealed that fast action on pollutants such as black carbon and methane may help limit near term global temperature rise and significantly increase the chances of keeping temperature rise below 2° Celsius, and perhaps even 1.5 degrees.
- Under the **Caring for Climate** initiative, UNEP, UN Global Compact, Oxfam and the World Resources Institute launched a joint report entitled **Adapting for a Green Economy: Companies, Communities and Climate Change**, highlighting the importance of climate change adaptation to companies and identifying how climate adaptation offers competitive advantages to businesses worldwide. With nearly 400 signatories, Caring for Climate is the world's largest voluntary business and climate initiative.
- In the run up to the UN climate convention in Durban, South Africa, UNEP launched the report **HFCs: A Critical Link in Protecting Climate and the Ozone Layer**. The report projects that by 2050 HFCs could be responsible for emissions equivalent to 3.5 to 8.8 Gigatonnes (Gt) of carbon dioxide (Gt CO₂eq) – comparable to total current annual emissions from transport, estimated at around 6-7 Gt annually.

- The report **Bridging the Emissions Gap** was launched in the run up to Durban and became an important reference point for the negotiations. It showed that cutting emissions by 2020 to a level that could keep a global, 21st century, temperature rise under 2° Celsius is technologically and economically feasible, but that current pledges and ambitions left a gap of 6 to 11 gigatonnes. Accelerated uptake of renewable energy, fuel switching and energy efficiency improvements can deliver a large slice of the necessary cuts. Other measures include sectoral improvements ranging from increased penetration of public transport and more fuel-efficient vehicles to ones in areas, such as, agriculture and waste management. The report cites aviation and shipping as a special but important case, as currently these 'international emissions' fall outside the Kyoto Protocol—the emission reduction treaty.

- The report **Actions for Controlling Short-Term Climate Forcers** was the last pre-COP17 report to be launched. It presented a package of 16 measures which could, if fully implemented across the globe, save close to 2.5 million lives a year; avoid crop losses amounting to 32 million tonnes annually and deliver near-term climate protection of about half a degree C by 2040.
- During the Durban Climate meeting, UNEP launched **Women at the Frontline of Climate Change**. According to the report, women, particularly those living in mountain regions in developing

countries, are facing disproportionately high risks to their livelihoods and health from climate change, as well as associated risks such as human trafficking.

- The Durban climate talks ended with hope for a new more comprehensive legally-binding agreement. Several important steps forward were agreed on including an agreement to negotiate a new and more inclusive treaty and the establishment of a Green Climate Fund. The outcome in Durban however has left the world with some serious and urgent challenges if a global temperature rise is to be kept under 2° Celsius in the 21st century.
- UNEP successfully set up climate change networks in SE Asia and Latin America and the Caribbean, with work under way to launch similar networks in Africa and West Asia. The Southeast Asia Network of Climate Change Focal Points (**SEAN-CC**) will improve the development and exchange of knowledge among experts and professionals in members of the ASEAN regional group. The Regional Gateway for Technology Transfer and Climate Change Action in Latin America and the Caribbean (**REGATTA**) aims to improve effectiveness and cooperation in existing networks in the region.
- In association with the Frankfurt School of Finance & Management, UNEP launched a new **Collaborating Centre for Climate & Sustainable Energy Finance**. Its goal is to work with financial institutions to develop cost-effective ways to reduce energy-related carbon emissions through access to energy investments and markets.

CLIMATE CHANGE

HIGHS AND LOWS



PERU

It's often sea-level communities who are seen as the most threatened by climate change.

But those at altitude are at risk too. Indeed, it is at the extremes of human settlement that the first indications of how climate change affects people's lives are being felt.

Peru will have increased temperatures, reduced rainfall, rising sea levels and increased frequency of extreme weather due to climate change.

In Peru, UNEP is working with UNDP, FAO and PAHO/WHO to monitor and mitigate the effects of climate change among the communities of the High Andes.

Part of this involves helping communities to work together. A series of Municipal Environmental Commissions (MECs) have been created to harmonise local environmental policies and to promote dialogue and cooperation between public, private and civil society on environmental issues.

UNEP has been involved in training the MECs, and also in running workshops on socio-environmental conflicts. Where communities, land and resources come under threat from climate change, the danger of conflict is never far away. In the Andes, the issue is complicated by the presence of formal and informal mining. UNEP helped develop a training guide and ran a series of workshops on mediation and conflict resolution to provide communities the skills and resources to head off problems before they arise.

While local issues such as forest fires and overgrazing remain the most visible environmental challenges in the Andes, climate change is never far away. UNEP-trained educators have been addressing local populations through drama productions, schools outreach and further education programmes—2011 saw the graduation of the second year of the UNEP-designed Diploma in Adaptation to Climate Change and Adaptive Management of Environmental Resources in High Mountain Areas, with 30 students awarded their diplomas.

Monitoring the effects of climate change is another vital part of UNEP's work in the High Andes. UNEP has been advising the Peruvian government on their acquisition and management of two meteorological stations and working to ensure the widespread dissemination of the data gathered.

ECOSYSTEM-BASED ADAPTATION

These projects will now be complemented by the UNEP, UNDP and IUCN ecosystem-based adaptation programme in Peru. Warming in the Andes is damaging high mountain ecosystems, including the drying of wetlands and the disappearance of snowcapped terrain.

Many Andean glaciers are retreating, and this could seriously affect seasonal water flows and the availability of water for human consumption, hydropower, and agriculture.

The UNEP collaborating project is promoting improved natural resource and farming management to help people and ecosystems to adapt.



CLIMATE CHANGE ADAPTATION IN MOUNTAIN REGIONS

Under a major partnership programme on Ecosystem Based Adaptation in Mountain Ecosystems, UNEP is helping to improve understanding and build the resilience and integrity of mountain ecosystems in Nepal, Peru and Uganda. The project is a joint effort of UNEP, UNDP and IUCN and is supported by the government of Germany. The successful partnership is now being expanded into other countries and regions.

UNEP, in partnership with the EU, also completed two successful projects in the Alps. Working across national borders, Climate Change and Spatial Planning in the Alpine Space (CLISP) and Climate Change and Tourism in the Alpine Space (ClimAlpTour) both aimed to bring together national and regional governments and stakeholders to address the risks of climate change.

The lessons learned from these projects will be shared with other mountain regions.

SEYCHELLES



PRESIDENT
JAMES ALIX
MICHEL

PRESIDENT OF
THE REPUBLIC OF
THE SEYCHELLES

"This UNEP/UNDP CC DARE is a worthwhile project which I fully endorsed. It is the way forward. If we all do our part in harvesting rainwater and are serious about it, we could all contribute to alleviating the serious shortages we face in the dry season."

From the heights of the Alps and the Andes, to the low-lying islands of the Indian Ocean, the Seychelles have been identified as particularly at risk from rising sea levels. But it's a lack, rather than an abundance of water, which is one of the Republic's most pressing concerns. The archipelago of over 100 islands has experienced changes in rainfall patterns over recent years, with short periods of heavy rainfall punctuated by long, severe dry seasons. Drought has become a regular occurrence, especially with a rise in urbanisation and population growth.

Various solutions have been tried, such as increased reservoir capacity and the use of desalination plants. But these, in particular,



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proved costly and they consumed fossil fuel, resulting in the emission of more greenhouse gases.

The **Climate Change & Development – Adapting by Reducing Vulnerability Programme (CC DARE)** project is a collaboration between UNEP, UNDP, and the government of Denmark, with involvement from UNICEF, WMO, national governments, NGOs and civil society organizations.

CC DARE, in collaboration with the Danish International Development Agency (DANIDA), piloted a rainwater harvesting project at eight schools. The resultant water bill savings have been re-invested in education. Meanwhile, the success of the project has provided a template for new building design. The government of the Seychelles has decided to integrate rainwater harvesting into the national building code. This recognition through legislation is a testament that small but well-timed and targeted interventions can have significant impact: an important aspect in the transition from practical demonstration to far-reaching policy actions.



Integrated Transport Planning : Infrastructures for cycling and walking have been developed along the Delhi Bus Rapid Transit (BRT) corridor

©UNEP

PROMOTING LOW CARBON TRANSPORT IN INDIA

India is currently the fourth largest greenhouse gas (GHG) emitter in the world, with its transport sector being the second largest contributor of CO₂ emissions. The sector also exacerbates road congestion, local air pollution, noise and accidents, particularly in urban areas.

UNEP and partners in India have embarked on a new initiative to support a low carbon transport pathway in India. The three-year 2.49 million Euro project is funded under the International Climate Initiative of the German Government, and is designed in support of India's National Climate Action Plan.

The expected outcome of the three-year project will be the creation of a National Transport Action Plan for India; specific Low-Carbon Mobility Plans for up to four cities; and the development of an information sharing and co-ordination website.

The greatest challenges in the transport sector are establishing the right policy framework, legal and regulatory aspects, infrastructure and services to manage the growing demand for mobility, while reducing negative impacts locally and globally. As in the case of India, interventions such as enhancing public transport and non-motorised transport systems require surmounting institutional, financial and social barriers. This project will help improve the understanding and enhance institutional capacity for charting a sustainable low-carbon transport development and provide a framework for similar interventions in other countries.



UN-REDD

UN-REDD is a Collaborative Programme between the FAO, UNDP and UNEP on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries.

Having grown to over \$100 million in funding, the UN-REDD Programme has not only been a model of inter-agency collaboration and UN Delivering as One but it has also surpassed its original direct support to 9 countries to 14 countries and now has an additional 21 partner countries that benefit from work at the global level. At the international level, the UN-REDD Programme seeks to build consensus and knowledge about REDD+ and raise awareness about the importance of including a REDD+ mechanism in a post-2012 climate change agreement. The UN-REDD Programme is undertaking a variety of activities from awareness raising to capacity building to ensure that countries are ready for REDD+ and that

more funding becomes available as the demand for REDD+ Readiness support continues to increase. UNEP's contributions towards realising REDD+ as an opportunity to simultaneously combat emissions, spur development and secure conservation is helping countries like Indonesia, the DRC and Panama, to name just three, identify means to safeguard these multiple benefits, and turn them into opportunities for a green economy.

In the Democratic Republic of Congo, a high level meeting in November, supported by UN-REDD and UNEP, has come to a similar conclusion about REDD+ and development, based on the ongoing work by the UN-REDD Programme. UNEP, through the UN-REDD Programme launched a policy brief in late November titled "REDD+ and a Green Economy: Opportunities for a mutually supportive relationship," which has resonated positively with Parties at the recently concluded UNFCCC COP 17. In this regard, Indonesia and Norway acknowledged the importance of linking REDD+ to the green economy and UNEP's contributions to this. The UN-REDD Programme also worked to ensure that its activities contribute effectively to promoting social and environmental benefits and minimise potential risk from REDD+. To this end, a set of Social and Environmental Principles and Criteria (SEPC) are being developed. Broad consultations on the draft have included engagement with the Convention on Biological Diversity's regional workshops on REDD+ safeguards and consultations at national level. The latest version is currently open for public consultation. These outcomes are now a concrete focus of work with Indonesia and the Democratic Republic of Congo, as well as work that is commencing in a number of other countries.

REDD+ IN INDONESIA

GREEN economy



DR. KUNTORO
MANGKUSUBROTO

HEAD OF THE PRESIDENT'S DELIVERY UNIT FOR DEVELOPMENT MONITORING AND OVERSIGHT AND THE CHAIR OF THE NATIONAL REDD+ TASK FORCE OF THE REPUBLIC OF INDONESIA.

"A green economy transition is worth pursuing not only because it is the best way forward, but also for what it does to bring millions of people out of poverty while conserving their ecosystems, improving their lives and enhancing their livelihood opportunities."

Indonesia is at the forefront of international efforts to develop REDD+ as a viable opportunity for climate change mitigation and sustainable development – particularly in the country's Kalimantan region.

Significant areas of Kalimantan's forests have been cleared for cash crops such as coffee and palm oil. But ongoing research led by the National REDD+ Task Force in partnership

with the United Nations, supported by UNEP and other stakeholders, indicates that this is coming at a cost to other productive sectors such as mining, fisheries and the livelihoods of local people as well as challenging Indonesia's biodiversity including the iconic orangutan. As part of its REDD+ Programme, Indonesia plans to plant palm oil and other crops on degraded lands rather than clearing virgin forest.

Overall the REDD+ funding, backed by smart public policies and both direct foreign investment and private sector funding, should assist Indonesia in its stated aims of realizing 7 per cent GDP growth per annum by 2014; reducing unemployment to between 5 and 6 per cent and achieving a 26-41 per cent reduction in the emissions of greenhouse gases by 2020. UNEP and other UN agencies have been requested to advise on a number of areas for intervention in Kalimantan, that would help realize multiple benefits from REDD+ for these stated goals.

The Heart of Borneo project, supported by the World Wildlife Fund (WWF), aims to protect biodiversity by creating a network of protected forest areas.

CARBON BENEFITS PROJECT

The UNEP-GEF Carbon Benefits Project: Modelling, Measurement and Monitoring has developed a set of scientifically rigorous, cost-effective tools to establish the carbon benefits of sustainable land management interventions. The online tools are designed to estimate and model carbon stocks and flows and greenhouse gas emissions under present and alternative management, and measure and monitor carbon changes under specified land use.

The approach allows for large area landscape assessments of above and below ground carbon for plans to mitigate climate change through REDD policies.

SOUTH EAST ASIA UNEP ACTS ON IMPROVING AIR CONDITIONERS



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UNEP's South East Asian network of Climate Change focal points (SEAN-CC) have developed a Strategic Framework on Energy Efficiency Harmonisation for room air conditioners across the ASEAN member states (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam). The strategic framework will allow better sharing of best practises between manufacturers and designers in reducing emissions from this energy-hungry sector.

The potential for total electricity saving from harmonization of standards for ACs in ASEAN countries is 5.374 terawatt hours per year. This would result in reduction in Green House Gas emissions amounting to 3.401 million tonnes.

COOLING THE USE OF HCFCs

China is the largest producer and consumer of Hydrochlorofluorocarbons (HCFCs), which are used as a coolant, solvent and propellant. These substances damage the ozone layer and contribute to global warming.

In 2011, \$265 million was granted to China by the Multilateral Fund for the implementation of the Montreal Protocol. The grant aims to help China eliminate 3,320 tonnes of HCFC consumption by 2015. It will also yield a cumulative CO₂ equivalent emission reduction of about 672 million tonnes by 2015. The Multilateral Fund also approved a \$5.24 million component for UNEP for the Refrigeration Servicing Sector.

Also in 2011, more countries were added to the list of those preparing action plans for the phase-out of HCFCs. The total worldwide is now 75.

RENEWABLES INVESTING IN THE FUTURE

2011 was another difficult year for the world economy. But one sector bucked the trend: Renewable Energy. In 2011, investors pumped a record \$211 billion into renewable energy. That's about one-third more than the \$160 billion invested in 2009, and a 540 per cent rise since 2004.

Wind farms in China and small-scale solar panels in Europe were the key drivers of the rise, according to UNEP's report, *Global Trends in Renewable Energy Investment 2011*.

EMERGING WORLD INVESTMENT IN RENEWABLES (2010 figures)

China

\$48.9bn up 28 per cent

South and Central America

\$13.1bn up 39 per cent

Middle East & Africa

\$5bn up 104 per cent

India

\$3.8bn up 25 per cent

Asian developing states (exc. China and India)

\$4bn up 31 per cent



DR. RENÉ CASTRO

MINISTER OF ENVIRONMENT, ENERGY AND
TELECOMMUNICATIONS, COSTA RICA

"Technology Needs Assessment (TNA) has come to be a methodological guide for conducting an orderly process from identification of mitigation and adaptation technologies to their deployment in the market."

TECHNOLOGY MATTERS MITIGATING CLIMATE CHANGE THROUGH INNOVATION

UNEP, on behalf of GEF, has been at the forefront of promoting technological solutions to mitigate the causes and effects of climate change.

But this can be a challenge, especially for developing countries which face considerable barriers to the rapid adoption of such technologies, including high costs and a skills deficit.

UNEP's **Technology Needs Assessment (TNA)** project helps countries identify their most urgent technological needs and provide policy-makers with the research and resources they need to make the change.

2011 saw the project move into a new phase with the number of participating countries more than doubling from 15 to 36.

There was also a substantial acceleration in the pace of implementation, due to lessons learned from the first round of participants. A series of new guidebooks prepared by UNEP and the online support portal www.tech-action.org, backed up national and regional capacity-building workshops. As a result, the project has seen a strengthening of government commitment and more efficient working of national TNA teams.

TECHNOLOGY NEEDS TECHNOLOGY ACTION

The next stage, once the findings of the TNA are in place, is the development of a national Technology Action Plan (TAP) that prioritises technologies, recommends an enabling framework for the diffusion of these technologies and facilitates identification of good technology transfer projects and their links to relevant financing sources. The TAP aims to systematically address practical actions necessary to reduce or remove policy, finance and technology related barriers.

In 2011, draft TNA reports were produced in ten countries and draft TAP reports produced in four: Morocco, Mali, Thailand, and Costa Rica.

The en.lighten Global Efficient Lighting Partnership Programme was launched in 2011 to provide an opportunity for countries around the world to achieve a coordinated global transition to efficient lighting. Over 55 countries have signed official declarations agreeing that the phase-out of incandescent bulbs is one of the easiest ways to reduce CO₂ emissions and achieve significant energy and financial savings, and 26 countries have officially joined the partnership. An ambitious target date of 2016 has been set to phase-out incandescent lamps globally.

www.enlighten-initiative.org

IRAQ TACKLING CLIMATE CHANGE

Iraq is emerging from nearly three decades of international isolation and recovering from war and its aftermath. It is just now turning its attention to environmental issues.

In 2009, Iraq ratified international standards on climate change set by the UNFCCC. The framework, among other goals, set requirements for emission reduction targets.

In the past two years, UNEP has worked with the UNDP as part of the 'ONE UN' programme to help the country's fledgling environmental ministry kick-start climate change initiatives.

As a result of UNEP's coordinated efforts, Iraq is already looking into emission management plans for oil companies and considering climate change as it tackles water and agriculture development issues.

In 2011 Iraq has:

- Created three new climate change projects that have received funding or are being considered for funding. The projects promote renewable energy and clean development, bolster wetlands initiatives, and set up national communication with the United Nations' Climate Change convention.
- Paved the way for national emission reduction requirements. For example, Iraq's oil ministry has started developing GHG emission management plans for oil companies.

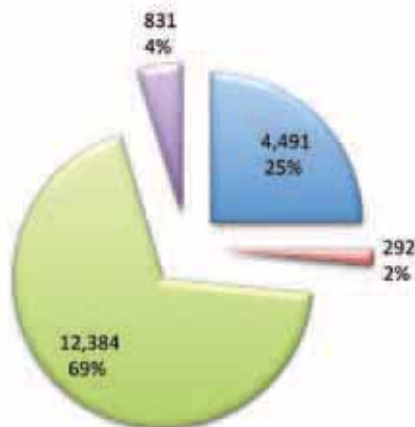


3

DISASTERS AND CONFLICTS

TOTAL EXPENDITURE 2011
DISASTERS AND CONFLICTS
\$17,998,000

- Environment fund Expenditures
- Regular budget expenditures
- Trust Funds & Earmarked contributions
- Programme Support



All figures in 000s

MINIMISING THE THREATS AND IMPACTS OF CRISES

UNEP aims to minimise threats to human wellbeing from the environmental causes and consequences of disasters and conflicts.

UNEP supports member states to address environmental degradation and the mismanagement of natural resources as underlying risk factors for conflicts and natural hazards. UNEP focuses in integrating environmental concerns into risk reduction policies and practices.

In the aftermath of a crisis, vital natural resources are often degraded or destroyed, leaving entire communities vulnerable. Assessments to gauge the risks posed by these environmental impacts on human health, livelihoods and security form the foundation of UNEP's response.

UNEP also uses environmental assessments to develop recovery programmes that address environmental needs and priorities and support peace-building strategies and long-term sustainable development.

RESULTS TARGETED

Enhancing the environmental management capacity of member states to reduce the risks of man-made and natural disasters.

Conducting rapid and reliable environmental assessments following conflicts and disasters, as requested.

Contributing to improved environmental management and sustainable use of natural resources through assessment and recovery efforts in post-crisis situations.

2011 THE YEAR IN DISASTERS AND CONFLICTS

- UNEP played an active role in reducing the risk of disasters and conflicts and addressing post-conflict environmental challenges in more than 30 countries, both through its ongoing country-based operations and environmental assessments, and following requests for technical assistance during disaster recovery efforts in such countries as Japan, Thailand and Kenya.
- Natural disasters caused a record \$366 billion damage in 2011, with the Great East Japan Earthquake and major floods in

Thailand accounting for more than two thirds of this total. Also according to UN figures, some 29,700 people lost their lives in 302 disasters during the year.

- Yet in countries that have been pro-active in taking adaptation and preparedness measures, such as Bangladesh, the death toll from comparable disasters was considerably lower than it was 20 years ago. UNEP continued to advocate for greater understanding of the critical role of ecosystems in reducing the risk and impact of natural hazards. Through its role in the global **Partnership for Environment and Disaster Risk Reduction (PEDRR)**, UNEP delivered training on the environment and disaster risk reduction in Sri Lanka, India and Thailand. This included the first ever Training of Trainers course to enable staff from regional and national disaster management training institutions and universities in more than 10 Asian countries to integrate the National Training Course on Ecosystem-based Disaster Risk Reduction into their ongoing training programmes.
- A major UNEP environmental assessment – **Rwanda: From Post-Conflict to Environmentally Sustainable Development** – provides a critical analysis of environmental issues facing Rwanda and proposes solutions. The report recommends reinforced policies and investments in large-scale ecosystem rehabilitation, renewable energy,



3

DISASTERS AND CONFLICTS

sustainable agriculture and regional environmental cooperation, including natural resource trade initiatives.

- To mark 25 years of UNEP's **Awareness and Preparedness for Emergencies at Local Level (APELL)** programme, a global forum was held in China, attracting participants from 17 countries. As a result, the University of Bahia Blanca in Argentina and Tsinghua University in China are to become new APELL Research Centres.
- A UN review of civilian capacity in post-conflict settings, **Independent Report of the Senior Advisory Group to the Secretary General on Civilian Capacity in the Aftermath of Conflict** (February 2011), identified natural resources as a priority area and nominated UNEP as the sub-cluster lead on the issue based on its track record for conducting post-conflict environmental assessments and recovery work. This is a major recognition of UNEP's efforts to integrate environmental considerations into UN conflict prevention and peacebuilding operations.
- Fieldwork began in the border zone of Haiti and the Dominican Republic for a new UNEP study examining potential sources of transboundary tensions and opportunities for cooperation over the use of water, timber and other natural resources.



- In Sierra Leone, 93 barrels of toxic waste were removed from a disused oil refinery near a densely populated neighbourhood near the capital, Freetown. With technical assistance and funding from UNEP, the national Environment Protection Agency supervised the clean-up of almost 12,000 litres, or 19 metric tonnes, of tetra-ethyl lead (TEL). Training covered techniques for extracting toxic substances and the safe storage and containment of chemicals.
- Under the Environment and Security Initiative (ENVSEC), Georgia's capital, Tbilisi, was the focus of the latest Global Environment Outlook at the municipal level. Released in December, the **GEO-Cities Tbilisi** report recommends increased environmental monitoring, a greater emphasis on renewable energy and modernizing waste treatment, and a shift to an integrated river-basin approach to water resource management.

OGONILAND NIGERIA

A major independent scientific assessment, completed by UNEP in 2011, shows that pollution from over 50 years of oil operations in the region has penetrated further and deeper than previously thought.

It is UNEP's hope that its findings will help break the decades of deadlock in the region and lead to the environmental restoration of Ogoniland, and catalyse improved environmental standards for the oil industry in Nigeria and around the world.

Drawing on the best available science and expertise, the **Ogoniland project** is a key step in

helping the government take action to clean up contaminated areas and restore people's lives and livelihoods in the region.

It could take 25 to 30 years to bring contaminated drinking water, land, creeks and important ecosystems such as mangroves back to full, productive health.

The scale and scope of UNEP's assessment has been unprecedented (see box).

The report discovered that some areas, which appear unaffected at the surface, are in reality severely contaminated underground and action to protect human health and reduce the risks to affected communities should occur without delay.



Disasters
and conflicts

3

DISASTERS AND CONFLICTS

UNEP Ogoniland Assessment

24
months duration

200+
locations examined

122km
of pipeline rights of way surveyed

5,000+ medical records reviewed

780
boreholes examined

23,000+
attendees at local community meetings

69
sites investigated in detail for soil
and groundwater contamination

**1,300m² -
790,000m²**
size-range of sites investigated

4,000±
samples analysed

142
groundwater wells drilled for the study

CHINA: BUILDING BACK BETTER

In one community, at Nisisioken Ogale, in western Ogoniland, families were discovered to be drinking water from wells contaminated with benzene—a known carcinogen—at levels over 900 times above WHO guidelines.

UNEP scientists found an 8cm layer of refined oil floating on the groundwater which serves the wells. This was reportedly linked to an oil spill which occurred more than six years ago.

This was the most severe example, and prompted the State Government to begin deliveries of potable water to the affected communities.

Among other findings, the report noted that mangroves—an essential coastal habitat—have been disastrously hit. That when oil spills occur on land, plant growth is stifled, often under a crust of tar. Fires are a regular occurrence. Air pollution impacts the lives of an estimated one million people.

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.

The report recommends establishing three new institutions in Nigeria to support a comprehensive environmental restoration exercise, and an initial capital injection of \$1bn, contributed by the oil industry and the government, to cover the first five years of the clean-up project.

Reforms of environmental government regulation, monitoring and enforcement are also recommended in the report.



Contaminated site assessment and remediation was also the focus of a study tour by a Chinese delegation to Switzerland and Germany, hosted by UNEP. Further to its post-earthquake recovery support to China since 2008, UNEP responded to a government request for technical assistance to inform the development of standards for contaminated site management in China.

The tour focused on European approaches to site and risk assessments, clean-up standards and the varying scale and cost of environmental remediation projects. It included presentations from UNEP experts and visits to remediated sites and specialised laboratories.

NIGERIA: LEAD POISONING IN ZAMFARA STATE

Also in Nigeria, abnormally high rates of death and illness among children since early 2010 caused alarm in Zamfara State in the north of the country. Over 18,000 people were affected and 200 children reportedly died as a result of acute lead poisoning from the processing of lead-rich ore for gold extraction taking place inside houses and compounds. Investigation by the joint UNEP/OCHA Environment Unit detected high levels of lead in groundwater, surface water and soil, and mercury in the air.

The multi-agency response involved intensive treatment for the most severe cases of children under five, the decontamination of homes and villages, and the remediation of affected wells.

NAIROBI PIPELINE DISASTER

On 12th September 2011, over 100 people perished and a similar number were hospitalised with serious wounds when an explosion and fire ripped through the slum of Mukuru-Sinai in Nairobi, Kenya.

The Kenyan government made an urgent appeal to the UN for environmental emergency response services. UNEP and the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), through their Joint Environment Unit, subsequently compiled an expert team to undertake a rapid environmental emergency assessment.



These before and after images captured by the UN's satellite imaging service show the extent of the disaster in Nairobi.

© UNITAR/
UNOSAT

The scope of the mission was to provide scientific information on the extent and nature of pollution and to assist the decision-making and priority-setting by the authorities and other actors for follow-up activities on the affected site.

The main conclusion of the mission was that the fire was not caused by a pipeline explosion as reported initially in the media, but by an industrial accident that caused a large amount of petrol to enter a storm water drainage system. A further conclusion was that a repetition of a similar type of accident is considered as highly likely.

As an investigation which was mobilised and in situ within days of a request from a national government, the joint UNEP/OCHA mission will provide a model for future inter-agency co-operation and rapid response.



3

DISASTERS AND CONFLICTS



Women carry sacks of charcoal from the Virunga National Park in DRC. The UNEP report found illegal fuel gathering was a major threat to the country's forests.

© Corbis

DEMOCRATIC REPUBLIC OF CONGO

With half of Africa's forests and water resources and trillion-dollar mineral reserves, the Democratic Republic of the Congo (DRC) could become a powerhouse of African development. But such a goal will only be attained if the intensive pressure on the country's natural resources is urgently addressed.

That was the conclusion of a major **Post-Conflict Environmental Assessment of the DRC** completed by UNEP in 2011. The two-year assessment highlighted increasing deforestation, species depletion, heavy metal pollution and land degradation from mining, as well as an acute drinking water crisis which has left an estimated 51 million Congolese without access to potable water.

Conducted in conjunction with the DRC's Ministry of Environment, Nature Conservation and Tourism, the assessment also hails 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.

Providing a strong foundation for UNEP's recovery programme in the DRC, the report advocates a 'Green Economy' transition whereby sustainable reconstruction includes capitalising on the country's emerging social economy to create 'green jobs', including for former combatants.

Among the focus areas recommended for UNEP's ongoing support to the government were overcoming the environmental liabilities of a century of mining by modernising the sector, including formalising artisanal mining, and promoting greater trans-boundary collaboration for sustainable fisheries management in the Great Rift Valley Lakes.

Strengthening institutional capacities for disaster preparedness—such as epidemics, volcanic eruptions, floods and forest fires—including early warning systems, was also singled out.



Water resource factsheets prepared by UNEP were used in four IDP camps in North Darfur to guide the provision of sustainable water.

SUDAN

In July, UNEP reaffirmed its long-term commitment to assisting the people of Sudan and South Sudan. In conjunction with its major donor, UKaid from the Department for International Development, UNEP realigned its plans for both countries, focusing on policy reform and partnerships.

Ahead of the Darfur International Water Conference in June, UNEP joined an international call for urgent action to address critical water issues in Darfur. Groundwater tables in many urban areas and IDP camps had dropped dramatically (by up to 7-10 metres) and UNEP voiced its concern that forthcoming periods of below-average rainfall could cause even more severe shortages in the region.

A breakthrough was achieved in influencing government policy with a decision to proceed with Integrated Water Resource Management as a national policy, in collaboration with UNEP.

With UNEP's technical assistance, Sudan's Higher Council for Environment and Natural Resources made significant progress in preparing the country's Second National Communication under the UNFCCC. By the end of 2011, data collection was under way in each of the 15 states for a major national vulnerability and adaptation assessment.

Seven villages in North Darfur became the first pilot sites for a UNEP-Darfur Development and Reconstruction Agency project aimed at empowering communities to assess and solve local environmental issues.



ENVIRONMENTAL COOPERATION FOR PEACEBUILDING

During the Durban climate meeting, UNEP and its partners released new evidence of changing climate trends in the Sahel and West Africa and their potentially profound implications for food security and regional stability.

Livelihood Security: Climate Change, Migration and Conflict in the Sahel analyses regional trends in temperature, rainfall, droughts and flooding over the past 40 years and their implications for the availability of natural resources, livelihoods, migration and conflict in 17 countries in the Sahel and West Africa. The study was conducted by UNEP in cooperation with the IOM, OCHA, the United Nations University (UNU), the Permanent Interstate Committee for Drought Control in the Sahel (CILSS) and the University of Salzburg.

The analysis detected significant changes in regional climatic conditions, including an overall rise in mean seasonal temperature from 1970 to 2006 of approximately 1°C, with a greater increase of between 1.5°C to 2°C observed in far eastern Chad and northern Mali and Mauritania.

According to the study, the frequency of floods and the area covered by flooding have increased in parts of the region over the past 24 years. An innovative mapping process identified 19 "climate hotspots" where climatic changes have been the most severe and which warrant focused adaptation planning and other follow-up activities. Many of the hotspots are in the central part of the Sahel, in Niger, Burkina Faso, northern and coastal Ghana, as well as northern Togo, Benin and Nigeria.

SOUTH SUDAN

2011 saw the birth of a new nation, and a new member state of the UN: The Republic of South Sudan. Thanks to the strong relationship fostered between UNEP and the new government, environmental considerations were included in all five pillars of the South Sudan Development Plan, a blueprint for the new country.

UNEP has long had a presence in Juba, one of the world's fastest-growing cities. Waste management is one of the biggest challenges the municipality faces, and UNEP assisted with drawing up a masterplan. An estimated 420,000 of 1.2m residents now benefit from regular solid waste collection.

Forests provide an important development opportunity for South Sudan, yet deforestation continues at alarming levels. UNEP's ongoing technical assistance supported progress with the enforcement of logging bans.

The study found that the impacts of such changing climatic conditions on the availability of natural resources, combined with factors such as population growth and weak governance, have led to greater competition over scarce resources, and to changing migration patterns in the region.

With a foreword by Ellen Johnson Sirleaf, President of Liberia and 2011 Nobel Peace Prize Laureate, 'High-Value Natural Resources and Post-Conflict Peacebuilding' represents one of the most comprehensive studies to date of the link between post-conflict peacebuilding and managing high-value natural resources such as oil, diamonds, gold and timber.

The research programme, which UNEP and the Law Institute have been coordinating, will yield more than 150 case studies from over 50 countries, assembled into a seven volume series. The research outcomes will be used for further policy development, UN staff training and field-level capacity building programmes.

AMU DARYA RIVER

The Amu Darya is the longest river in Central Asia, flowing from the highlands of Afghanistan to the deserts of Turkmenistan, passing through Tajikistan and Uzbekistan.

Water resources in the region are already impacted by decades of often unsustainable development dating back to the era of the Soviet Union.

Large-scale engineering projects dammed and diverted substantial flows from the Amu Darya river basin into activities such as cotton, wheat and fodder farming in arid and desert regions.



Such projects have also contributed to increased land degradation and damage to soils.

The Aral Sea, which relies in part from water from the Amu Darya, remains severely degraded with the report's estimates indicating that "the volume and surface area of the sea have now decreased tenfold".

Water levels in the southern part have dropped by 26 metres and the shoreline there has now receded by several hundred kilometres.

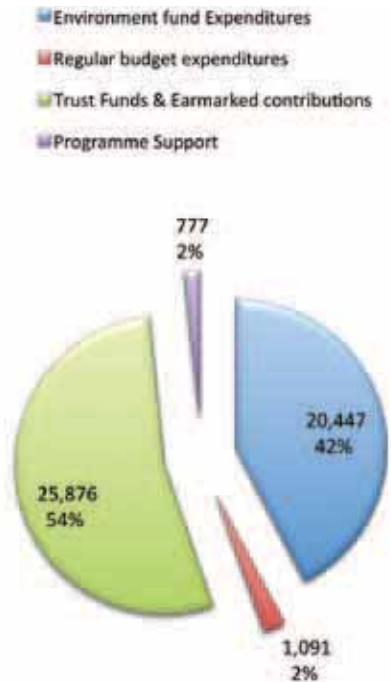
Boosting cooperation between countries sharing the waters of the Amu Darya could be key to future peace and security in the region, according to a flagship report from UNEP, launched in 2011. **Environment and Security in the Amu Darya Basin** recommends heightened cooperation between the states which share this resource; more exchange of information on projects such as irrigation and hydropower which impact downstream regions; and the sharing of the burden of maintaining the water infrastructure.



4

ENVIRONMENTAL GOVERNANCE

TOTAL EXPENDITURE 2011
ENVIRONMENTAL GOVERNANCE
\$48,191,000



All figures in 000s

STRENGTHENING GOVERNANCE

UNEP helps governments and regional institutions place environmental sustainability at the heart of their development policies, supporting informed international decision-making processes based on accurate and timely environmental data and information.

UNEP catalyses international efforts to implement internationally agreed environmental objectives.

UNEP also helps governments to further strengthen and develop their policies, laws and institutions in the field of environmental governance, and develop tools and processes for environmental management.

RESULTS TARGETED

The United Nations system, respecting the mandates of other entities, progressively achieves synergies and demonstrates increasing coherence in international decision-making processes related to the environment, including those under multilateral environmental agreements.

The capacity of member states to implement their environmental obligations and achieve their environmental goals through strengthened laws and institutions is enhanced.

National development processes and UN country programming processes increasingly prioritise environmental sustainability in the implementation of their programmes of work.

Access by policy-makers and national and international stakeholders to sound science and advice is improved.

2011 THE YEAR IN ENVIRONMENTAL GOVERNANCE

- The InforMEA portal (www.informea.org) was launched in 2011 to provide a one-stop shop for MEA information—COP decisions, MEA news and events, MEA membership and national focal points. It is the first project developed under the UNEP-supported MEA Information and Knowledge Management Initiative which currently includes 24 international

instruments from 13 MEA secretariats hosted by three UN organizations and the IUCN.

- The UNEP Yearbook 2011, **Emerging Issues in Our Global Environment**, issued key findings on the hazards of plastic marine debris to the food chain and on the use of phosphorus in food production. It also revealed that halting the loss of forest diversity is vital to maintaining these ecosystems, and detailed the rapid growth in renewable energy supply.

- UNEP launched a series of bulletins which provide a succinct overview of timely and thematic early warnings. The “Global Environment Alert Service” (GEAS) bulletins, communicate in a simple language, using visual tools, the scientific evidence of emerging environmental issues, trends and threats of international significance.
<http://na.unep.net/geas/>

- The UNEP-GEF Project for Continued Enhancement of Building Capacity for Effective Participation in the Biosafety Clearing House (BCHII) was developed in order to assist parties in effectively fulfilling their obligations under the **Cartagena Protocol on Biosafety**.
- CITES also launched the **CITES Virtual College**. The online college is composed of interactive courses, a library and training centre with networks for tutors and students.
<http://campusvirtual.unia.es/cites/>



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ENVIRONMENTAL GOVERNANCE



© Stephanie Badini/UNEP

- The five winners of the **UNEP Champions of the Earth** were announced in May. Mexican President Felipe Calderon, global music legend Angélique Kidjo, adventurer Louis Palmer, green entrepreneur Zhang Yue and scientist and campaigner Dr. Olga Speranskaya received their awards at a ceremony (above) hosted by UNEP Goodwill Ambassador, Gisele Bündchen, at the American Museum of Natural History in New York.
- The **International Consortium on Combating Wildlife Crime** began full activities in 2011. A partnership of CITES, INTERPOL, UNODC, The World Bank and the World Customs Organization, it supports national wildlife law enforcement agencies and regional networks.

CASPIAN SEA

The waters of the Caspian Sea are shared by five nations—Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan. As a significant source of oil and gas, the region is currently enjoying an “oil boom”. But the rapid development of the extraction industry has brought environmental risk. Over the last two decades, the sea has become increasingly exposed to the threat of pollution, with traffic in oil products estimated at around 10,000 annual shipping movements.

The Caspian Sea is the largest enclosed body of water on Earth and sustains the livelihoods of over 15 million coastal inhabitants. Due to its isolation from the world’s oceans for millennia, the Caspian has formed a highly valuable ecosystem with unique biodiversity and a wealth of natural resources.

But the protection of this ecosystem depends upon trans-national cooperation between all five neighbouring states, with the active engagement of the oil and gas sector. To this end, UNEP, in association with the IMO, facilitated the Protocol Concerning Regional Preparedness, Response and Cooperation in Combating Oil Pollution Incidents, known as the Aktau Protocol.

The protocol introduces common rules for countries to assess any planned activities which are likely to cause significant adverse effects upon the sea’s environment. It will also require countries to notify one another of such activities.

ASIA-PACIFIC: PUTTING THE ENVIRONMENT AT THE HEART OF DECISION-MAKING

The continued economic development of the Asia-Pacific region has seen a host of new environmental issues come to the fore. UNEP has been involved in a number of bilateral partnerships to help national governments to develop legislation to deal with such issues.

In the landlocked state of Laos, major environmental concerns have to be balanced with the need for economic progress. The country is an exporter of hydroelectric power, yet plans for a dam on the Mekong River have caused alarm in neighbouring Vietnam. Deforestation through logging is depleting the country's timber resources and damaging biodiversity. And the demand for coal and valuable metals, especially from China, has led to a boom in mining in recent years. All of these sectors require regulation and scrutiny from a dedicated government department, and so UNEP assisted and advised Laos on the creation of their new Ministry of Natural Resources and Environment. UNEP aided the drafting of the country's new environmental framework law for approval by the National Assembly.

The young state of Timor-Leste also called upon UNEP's expertise in 2011 with assistance in drafting its own environmental framework law. At the end of 2011 the draft was under public consultation as a first step towards adoption into law.

UNEP also assisted the government of the Maldives with drafting the revision of their environmental framework law. Officials from the Ministry of Housing, Transport and Environment and the Maldives Attorney General's department were provided with UNEP's input and advice prior to the bill being presented to the National Assembly.

Mongolia requested UNEP's assistance in revising and strengthening its Environmental Impact Assessment law. Vietnam was aided by UNEP experts in the development of a national legislation for promoting resource efficiency, sustainable consumption and production, and a green economy.



Environmental
governance

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ENVIRONMENTAL GOVERNANCE



EYE ON EARTH

In December 2011, Abu Dhabi hosted the Eye on Earth Summit. UNEP was the lead agency leading the negotiations on a commitment to take to Rio +20.

The Summit brought together over 600 participants representing governments, UN organizations and civil society. The aim was to converge thinking around the most pressing challenges faced by the world today, in the context of opportunities presented by rapid technological advances. As a key outcome of the Eye on Earth Summit, UNEP lead the preparation of the Summit's Rio+20 submission on access to environmental information.

The principle outcome was the drafting of an Eye on Earth declaration which was officially signed by UNEP, the Abu Dhabi Environmental Data Initiative and the UAE government. The declaration reflects an agreement by international bodies, governments and research communities to collaborate on a range of initiatives aimed at compiling and providing access to the data and information needed to monitor the global environment.

UNEP also hosted the UN Pavilion at the Summit, with contributions from a wide range of agencies, organizations and programmes. The theme of the pavilion was "Bridging the Data Gap" and it consisted of interactive multimedia presentations of examples of UN bodies coming together to share and exchange data for the benefit of the environment.

RESEARCH4LIFE / OARE KNOWLEDGE & RESEARCH FOR DEVELOPING COUNTRIES

Ten years ago, the UN identified a problem. The vast majority of cutting-edge scientific research is published in peer-review journals, subscription to which can cost thousands of dollars a year. Research institutions in the developing world were at a disadvantage. Without access to the most up-to-date information on environmental, medical, agricultural and technological innovations, they would lag behind.

A decade later, over nine thousand journals are available to researchers in 109 developing countries, free of charge, thanks to an agreement between UNEP, WHO, FAO and WIPO, together with academic publishers and Microsoft. At an event marking the tenth anniversary in 2011, the participating publishers signed a pledge to continue their support until 2020.

RESEARCH4POLICY KNOSSOS

Launched in 2011, Research4Policy showcases European Commission - UNEP collaboration in an innovative manner to make environmental science actionable for policy making and civil society action to solve pressing ecological questions of our time.

As part of the Knowledge from Science to Society (KNOSSOS) project, Research4Policy aims to bridge the gap between available



WILKISTA
NYABORA MOTURI

HEAD OF
ENVIRONMENT
STUDIES DEPARTMENT
EGERTON UNIVERSITY
KENYA

"My access to OARE when I did my PhD programme did not only enable me as a person achieve my target but also to improve the quality of life among the Ogiek people in Maucho and Newsiit where diarrhoea and coughs, among other preventable ailments, have been ravaging lives of children and many adults in a vicious disease circle."

scientific evidence and policy making in the environment field. Its approach is that a sound knowledge base will lead to more effective environment policies.

KNOSSOS therefore starts by taking stock of EU and international environmental scientific research activities, filtering out key information for decision makers & policy makers. Civil society groups are also woven into the project's outputs, especially those who promote environmental issues publicly.

www.unep.org/research4policy/

PARTICIPANTS IN RESEARCH4LIFE



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ENVIRONMENTAL GOVERNANCE



SCIENCE FOR POLICY SCIENCE FOR THE ENVIRONMENT

Completed in 2011, the **UNEP Foresight Report** provides a description of the 21 emerging environmental issues identified through the UNEP Foresight Process. The process, which was led by the UNEP Chief Scientist involved the identification of emerging issues by UNEP colleagues and a Foresight Panel comprising of 22 distinguished members of the scientific community cutting across a wide spectrum of environmental and environmental-related disciplines and world regions. Together, the experts debated and prioritised the issues identified by the Foresight Panel. These issues were then scored via an electronic consultation involving more than 400 scientists worldwide. The process resulted in a list of "**21 Emerging Environmental Issues**" covering the major themes of the global environment including food, land, freshwater, marine, biodiversity,

climate, energy, waste, and technology, as well important cross-cutting issues ranging from the need for better environmental governance to the need for human behavioral change towards the environment.

In addition, UNEP's flagship assessment process — **Global Environment Outlook (GEO-5)** — and the Foresight process together sent out an electronic questionnaire to a wider group of stakeholders in all regions to get their feedback on the emerging issues identified through both processes.

Results from both processes were used in UNEP's submission for Rio+20. The emerging issues submitted include:

- Food and nutrition security, land, water and biodiversity resources.
- Marine resources.
- Cities.
- Chemicals, wastes and human health.

GLOBAL ENVIRONMENT OUTLOOK

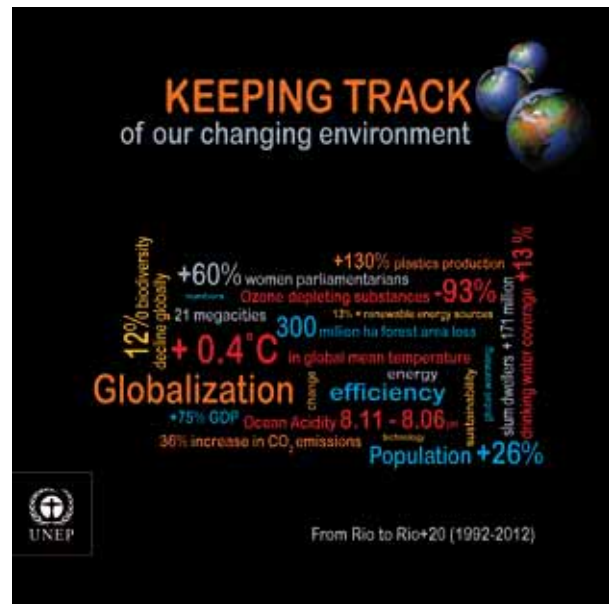
LOOKING AHEAD TO PLAN AHEAD

Global Environment Outlook (GEO) is a consultative, participatory process that builds capacity for conducting integrated environmental assessments for reporting on the state, trends and outlooks of the environment. GEO is also a series of products that informs environmental decision-making and aims to facilitate the interaction between science and policy.

The rigorous assessment process aims to make GEO products scientifically credible and policy relevant, providing information to support environmental management and policy development. GEO also supports multi-stakeholder networking and intra and inter-regional cooperation to identify and assess key priority environmental issues at the regional levels.

A world-wide network of Collaborating Centre partners; a nomination process that allows governments and other stakeholders to nominate experts to the process; advisory groups to provide guidance on scientific and policy issues; and a comprehensive peer review processes, are some of the integral elements of GEO.

Using the integrated environmental assessment (IEA) methodology, UNEP has produced four GEO reports thus far, which have analysed environmental statuses and trends at the global and regional scales, described plausible



outlooks for various time frames, and formulated policy options.

Each GEO report builds on the assessment findings of its predecessor and draws from lessons learnt.

The fifth GEO report is currently being produced. It will be available in June 2012. See GEO website (www.unep.org/geo) for details on experts, partners and the process.

The report will be published prior to the **UN Conference on Sustainable Development** in June 2012. It will track progress in the achievement of internationally agreed goals. GEO-5 will also provide the state, trends and outlook of the global environment. It will analyse selected goals, consider various policy options that could help countries speed-up implementation and realization of these goals and finally, GEO-5 will assess options for global action and transformative change.



Environmental
governance

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ENVIRONMENTAL GOVERNANCE



POVERTY- ENVIRONMENT INITIATIVE

The Poverty-Environment Initiative, a joint programme between UNEP and UNDP, aims to support the integration of pro-poor environmental sustainability objectives in national development plans and budgets, so that the economic benefits of natural resource use are enhanced or maintained to contribute to poverty alleviation.

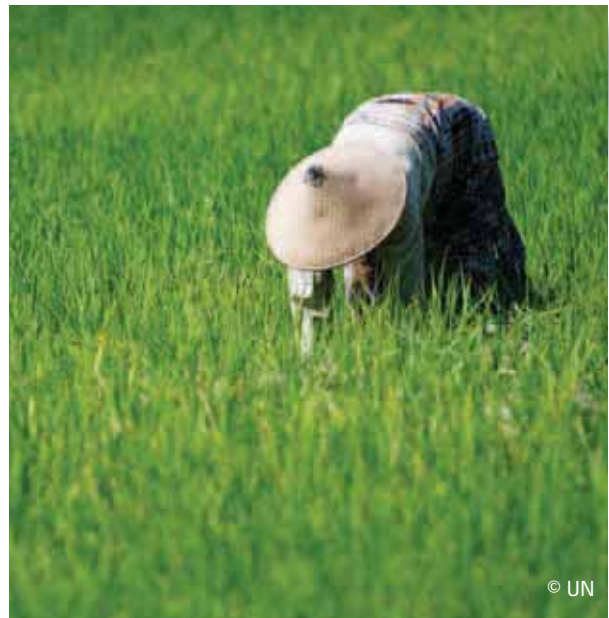
Since the PEI was scaled up in 2008:

- UNEP has received 50 requests from Governments and UNDP Country Offices to establish PEI country programmes.
- Environmental sustainability has been integrated as an objective in national and/or sectoral development plans such as Poverty Reduction Strategy Papers (PRSP) in 16 countries.
- The operationalization of these objectives has already resulted in budget increases in Rwanda and Uruguay, where the Ministry of Social Development increased the budgetary allocation for PEI sectors (poverty, environment and waste management) sixfold – from \$350,000 in 2010 to \$2.15 million in 2014.
- PEI provides support to building blocks towards the Green Economy in developing countries.

In 2011 PEI has been successful in increasing Green Economy investments in a number of countries:

- In Bangladesh, the government has begun to revise some of their largest capital development projects to reduce their vulnerability to climate change.
- In Bhutan, the government has agreed to sustain their high level of environmental investment at just over 2 per cent of public expenditure.
- PEI has facilitated the engagement of Burkina Faso in an investment programme on environment and sustainable development in key PEI priority areas (generic, cotton and mining) in close collaboration with UNEP's Green Economy initiative.
- In Laos the Government has drawn up a strategy to move away from natural resource extractive investments towards more sustainable investments.
- In Malawi, PEI helped design the Government co-ordination mechanism for responding to climate change, with the UN Resident Coordinator promoting the PEI model of having a cross-government approach led by the Ministry of Planning.

In 2011 the continuation of the joint UNDP-UNEP PEI was endorsed by an external, independent Mid-Term Review and the PEI Donor Steering Group.



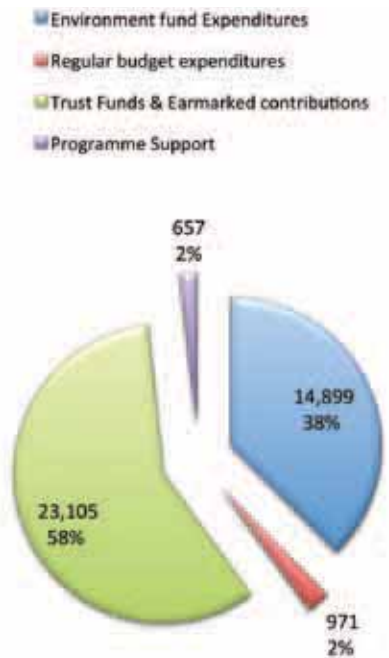
In 2012, UNDP and UNEP, in collaboration with their partners, will initiate a planning process for the elaboration of the next phase to ensure that the PEI continues its substantial unique contribution to the poverty-environment mainstreaming agenda and the IFSD.



5

ECOSYSTEM MANAGEMENT

TOTAL EXPENDITURE 2011
ECOSYSTEM MANAGEMENT
\$39,632,000



All figures in 000s

MAINTAINING ECOSYSTEM SERVICES FOR HUMAN WELLBEING

UNEP aims to ensure that countries utilise the ecosystem approach to enhance human wellbeing.

UNEP provides three core services to governments:

1. Building capacity on the critical role of sustainably managed ecosystems in supporting social and economic development.
2. Assisting national and regional governments to determine which ecosystem services to prioritise, based on their economic and developmental needs.
3. Enabling governments to incorporate the ecosystem approach into their national and developmental planning and investment strategies.

RESULTS TARGETED

Countries and regions increasingly integrate an ecosystem management approach into development and planning processes.

Countries and regions acquire the capacity to use ecosystem management tools.

Countries and regions begin to realign their environmental programmes and financing to tackle the degradation of selected priority ecosystem services.

2011 ECOSYSTEMS AT THE HEART OF DECISION-MAKING

- The report '**Reefs at Risk Revisited**' presented a comprehensive analysis of threats to coral reefs including, threats from climate change – warming seas and rising ocean acidification. It also showed that local pressures – such as overfishing, coastal development and pollution – pose the most immediate and direct risks, threatening more than 60 per cent of coral reefs today.
- A new UNEP report, '**Colony Disorders and other Threats to Insect Pollinators**', shows that more than a dozen factors, ranging from declines in flowering plants and the use of memory-damaging insecticides to the world-wide spread of pests and air pollution, may be behind the emerging decline of bee colonies across many parts of the globe.

- To mark World Water Day 2011, a **Rapid Response Assessment** by UNEP and UN-Habitat was launched. The assessment showed that African urbanization - growing at a faster rate than anywhere else in the world - is affecting water supplies and sanitation.
- On World Oceans Day, 08 June 2011, UNEP launched a **Guide to Marine and Coastal Ecosystem-Based Management**. The guide showed that declines in marine and coastal ecosystems due to human activities such as overfishing and pollution could be reversed if organizations, communities and other stakeholders adopt a more integrated approach to managing coastal environments.



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Ecosystem
management

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ECOSYSTEM MANAGEMENT

- A new report by the UNEP-WCMC gave **eight million seven hundred thousand** (give or take 1.3 million) as the latest estimated total number of species on Earth and the most precise calculation ever offered. The report said that 91 per cent of species in the seas have yet to be discovered, described or catalogued.
- At the **10th Conference of Parties (COP 10)** to the Convention on Migratory Species (CMS) held in Bergen, Norway from 20-25 November, efforts to conserve seven migratory species, from the Giant Manta Ray to the Saker Falcon, were strengthened.
- 2011 was declared the **International Year of Forests (IYF)** with the theme 'Celebrating Forests for People'. UNEP launched a new forest-focused coffee table book in collaboration with such famous photographers as Yann Arthus-Bertrand; a special media pack and a new website on forests at www.unep.org/forests.

PROTECTING ECOSYSTEMS

ABERDARE FENCE

The now completed 400 km electrified fence enclosing the Aberdare Conservation Area (ACA) has improved the livelihoods of millions of people in central Kenya, according to an independent study commissioned by UNEP in 2011.

The study, **The Environmental, Social and Economic Assessment of the Fencing of the Aberdare Conservation Area**, also attributes improved forest cover, safer living conditions

for local communities and greater security for wildlife to the fence, which was completed in 2009 after 20 years of construction.

The study was requested by The Rhino Ark Trust, the Kenya conservation charity that has pioneered the fence project, with funding support from thousands of Kenyans and friends of Kenya overseas. The study was co-funded by UNEP, Rhino Ark and Kenya Forests Working Group and supported by the Kenya Wildlife Service, the Kenya Forest Service and the Greenbelt Movement.

"The study affirms that the fence has proved a prime management tool in the process of both conservation integrity and ensuring better incomes for all — fence edge farmers, as well as the national and global interests that are derived from the Aberdares as a prime water, forest and biodiversity hot spot," said Colin Church, Chairman of the Rhino Ark Management Committee.

ABERDARE FENCE: RESULTS

**20.6
per cent**
increase in forest
cover between
2005 and 2010

**47
per cent**
increase in exotic
plantations outside
the fenced area

"The study re-affirms that the Aberdares is offering a management and policy blue print for the precious 'water towers' of Kenya and other tropical mountain ecosystems and upon which so much human resource is increasingly dependent", he added.

Over the last 15 years, UNEP has been highlighting the vital role of Kenya's "water towers", such as the Aberdare Range and the Mau Forest complex, in securing environmental stability, economic development and human well-being. The financial and technical support to the Aberdare assessment study is part of UNEP's ongoing work in enhancing the understanding of the importance of ecosystem services.

ABERDARE REPORT KEY FINDINGS

The report attributes these improvements to the effects of the fence and associated fence management guidelines as well as more assertive policy interventions.

It emphasizes that there should be an integrated management plan for the Aberdares and by inference that future government policy should incorporate holistic approaches to the way high value mountain forest ecosystems are managed.

It concludes by affirming that management of the buffer zone — the five kilometre area around the fence — should be clearly identified and every effort made to create "positive benefits by deliberate investment in support of local livelihoods."



© Colin Church, Rhino Ark



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ECOSYSTEM MANAGEMENT



© Colin Church, Rhino Ark



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SUSTAINABLE MANAGEMENT IN THE ARCTIC

A partnership on sustainable management in the Arctic was established in 2011 under the leadership of the Russian Government and UNEP.

The purpose of this initiative is to develop and implement a long-term, multi-purpose programme on environmental cooperation in the Russian Arctic.

In September, Arctic Agenda 2020 was submitted to the Global Environment Facility for funding.

The following institutions and groups are engaged in this partnership: the Government of the Russian Federation, GEF, UNEP, The World Bank, the European Bank for Reconstruction and Development, UNDP, Nordic Environment Finance Corporation, United States Environmental Protection Agency, regional administrations of the Arctic regions in Russia, extractive companies, NGOs and Indigenous Peoples of the Arctic.



THE PACIFIC YEAR OF THE DUGONG

They're the gentle giants of the oceans. In 2011, the Convention on Migratory Species launched the Pacific year of the Dugong. Among the initiatives was a new pilot project using financial incentives to address direct hunting and the incidental capture of dugongs by improving the livelihoods of local communities.

The campaign was launched in Palau, which hosts the smallest, most remote and critically endangered dugong population in the region.

Dugongs, which play a significant ecological role in the functioning of coastal habitats, live in warm coastal and island waters from East Africa to Vanuatu in the Pacific.

The action plan developed under the CMS Dugong project provides the framework for the regional cooperation for the long-term protection of dugongs in the Indian Ocean, South East Asia, South Asia, Australia and the Pacific Islands.

Two pilot projects are currently being developed in Daru, Papua New Guinea, and Bazaruto Bay in Mozambique to reduce hunting and accidental trapping by encouraging behavioural change – this might be in the form of loans, or payments for ecosystem services, for lessening their catches or for changes to more dugong-friendly fishing gear.

In some parts of the Pacific Islands, such as the Torres Strait between Papua New Guinea and Australia, hunting for direct consumption is the legal right of traditional inhabitants and sustainable hunting levels need to be agreed as part of the action plan.

Most of the world's remaining dugong populations outside of Australia and the United Arab Emirates are at serious risk of disappearing without effective and timely conservation action. The major causes of dugong mortality are poaching, unsustainable hunting, entanglement in fishing gear, vessel strikes and habitat degradation.

At least five projects will be tested in sites across the Indian Ocean, South East Asia, South Asia, and Pacific Islands regions, and will be funded over a three-year period (2011-2013). Community organizations, NGOs, government officials and individuals will participate in developing and implementing the projects.



5

ECOSYSTEM MANAGEMENT

WORLD ENVIRONMENT DAY ENVIRONMENT DAY 2011



World Environment Day (WED) is the biggest, most widely recognized and celebrated UN-led global day for positive environmental action across all sectors of society. In line with the UN International Year of Forests, the 2011 theme for WED was Forests: Nature at Your Service. The day aimed to raise global recognition of the role and value of forests in the transition to a Green Economy.

The participation and response to WED this year reflected signs of the event evolving into a global movement. WED 2011, hosted primarily in India, strategically engaged Bollywood and global celebrities (including UNEP Goodwill Ambassadors) to build on the WED Legacy initiative. This resulted in pledges to plant a mini forest, based on activities registered worldwide. According to activities registered on the WED website, over 2 million people participated in more than 4,200 activities worldwide. An online media survey revealed that more than 4,800 WED-related news articles were published in just the week of the celebration – 2 to 6 June. Social media activity grew by more than 100 per cent over 2010 figures and in some instances quadrupling, such as views on YouTube and blogging activity.

WORLD ENVIRONMENT DAY SPREADING THE MESSAGE

2.9 million
visits to the WED website between Jan-June, a **14 per cent increase** over 2010 figures in the same period

4,229
activities were registered on the WED website (183 per cent growth), involving over **2 million** participants worldwide.

4,517
external websites linking to the WED website, a **39 per cent increase**

UNEP SASAKAWA PRIZE 2011

The 2011 UNEP Sasakawa Prize continued the focus on forestry and sustainable development with awards for projects in Latin America and the Himalayas and Nepal. The **Asociación Forestal Integral San Andrés, Petén (AFISAP)**, from Guatemala and the **Manahari Development Institute** from Nepal were joint winners around the theme "Forests for People, Forests for Green Growth".

AFISAP safeguards the preservation of forests in the 52,000-hectare concession within the Mayan Biosphere Reserve. MDI-Nepal has introduced agroforestry to help improve crop productivity and reduce soil erosion on the forested hills and mountain areas of Nepal.



PLANT FOR THE PLANET BILLION TREE CAMPAIGN



UNEP's Billion Tree Campaign, which has planted over 12 billion trees worldwide, entered a new phase with the official handing-over of the project to the Plant For The Planet Foundation, a youth-led environmental organization based in Germany.

The original goal of one billion trees was quickly surpassed soon after the campaign's launch and the 12 billion landmark was reached in October 2011. Inspired by the late Wangari Maathai, the Billion Tree Campaign's partners included the Green Belt Movement, the World Agroforestry Centre, FAO and the Prince Albert II of Monaco Foundation.



5

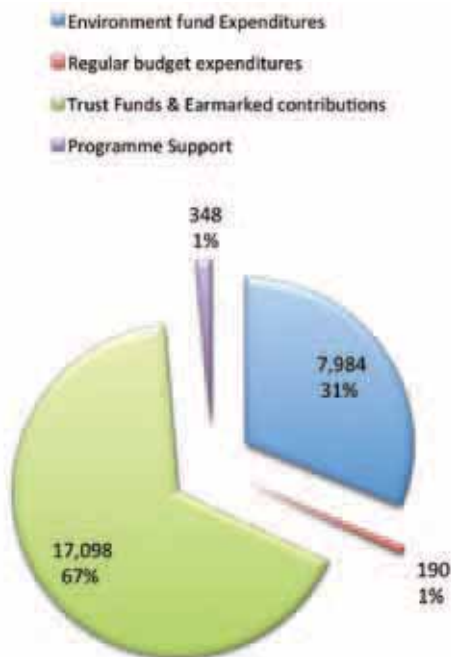
ECOSYSTEM MANAGEMENT



6

HARMFUL SUBSTANCES AND HAZARDOUS WASTE

TOTAL EXPENDITURE 2011
HARMFUL SUBSTANCES AND
HAZARDOUS WASTE
\$25,619,000



All figures in 000s

HARMFUL SUBSTANCES & HAZARDOUS WASTE: 2011 IN REVIEW

- In April, Representatives from 127 Governments meeting in Geneva for the fifth meeting of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants agreed to add endosulfan to the United Nations' list of persistent organic pollutants to be eliminated worldwide. The action put the widely-used pesticide on course for elimination, with specific exemptions, from the global market by 2012. The conference also endorsed seven new Stockholm Convention regional centres in Algeria, Kenya, India, Iran, Senegal, South Africa and the Russian Federation.
- In June, the fifth meeting of the Conference of the Parties to the Rotterdam Convention on the Prior Informed Consent Procedure for Certain

Hazardous Chemicals and Pesticides in International Trade held in Geneva agreed to add three pesticides; alachlor, aldicarb and endosulfan, to the Convention.

- The 10th meeting of the Conference of the Parties to the Basel Convention, the global treaty on waste management, reached an agreement unblocking an amendment that will ban the export of hazardous wastes from OECD to non-OECD countries. The decision included a set of measures aimed at strengthening international control of transboundary movements of hazardous wastes, while establishing a regime for countries who may wish to trade in waste to ensure the minimization of health and environment impacts, adequate labour and social conditions, and the creation of new economic opportunities. The Conference also adopted a 10-year Strategic Framework for implementation of the Convention designed to strengthen the environmentally sound management of wastes.

MERCURY RISING ON THE AGENDA: TOWARDS AN INTERNATIONAL TREATY

Mercury can exist in its familiar liquid metal form (sometimes called quicksilver), as a vapour, or as a compound in inorganic salts. In all of these forms, it is toxic and can be highly detrimental to human health and that of the environment.



Sufferers of Minamata disease, caused by mercury poisoning, in Japan

© Corbis

As a vapour, mercury is capable of wide-spread travel in the atmosphere. The metal accumulates in ecosystems and in living organisms, including humans. Of particular concern is mercury's effect on the developing nervous system of infants and children. Because the substance can be passed from mother to unborn child, women of child-bearing age are also at risk.

Mercury and its compounds are extensively used in industry. The element can be released to the atmosphere during coal combustion and it is a component in some fluorescent light bulbs. One of the major areas of concern is mercury's use in artisanal and small-scale gold mining (see overleaf).



QUICKSILVER AND GOLD

Because these operations tend to be poorly regulated, the miners, their community and the local environment all come into contact with mercury. It is estimated that there are 10-15 million artisanal and small-scale gold miners in 70 countries of the world. An estimated 2000 tonnes of mercury are used every year in the sector. Yet low-mercury and mercury-free solutions are available

To combat the use of mercury in the gold-mining industry, UNEP has spearheaded a project to encourage tougher regulation and develop capacity-building among nations with extensive artisanal and small-scale gold mining operations. With UNEP's advice and assistance, the Philippines and Cambodia have taken the lead. UNEP has also developed draft guidance for other governments to consider in drawing up national strategic plans on the issue.

2000
TONNES
mercury used annually

10-15
MILLION
artisanal and small scale
gold miners globally

UNEP has taken the global lead in facilitating a global treaty on mercury and its uses. In 2011 this treaty came one step closer to reality, with two intergovernmental and several regional meetings to negotiate a global legally binding instrument on mercury. The intergovernmental negotiations took place in Nairobi, Kenya, in October-November 2011, following a session earlier in the year in Japan.

The Japanese meeting was marked by moving presentations from sufferers of Minamata disease. This crippling disease is caused by exposure to mercury, sometimes even before birth. It is named after the city of Japanese city of Minamata where mercury pollution from industry was allowed to bioaccumulate in seafood over many decades. The subsequent outcry and investigation led to Japan taking a global lead in combating mercury pollution, and it is planned that the UNEP-brokered treaty will be signed in Japan in 2013, to be called the Minamata Convention.

DDT ELIMINATION & DISPOSAL IN MEXICO AND CENTRAL AMERICA

DDT's danger as a persistent organic pollutant (POP) is not in doubt. But nor is its effectiveness in fighting malaria. As an insecticide, it was used around the world in the years following

**200
TONNES**

amount of DDT and other POPs
safely disposed of in Mexico &
Central America



World War 2, with a significant impact on malaria cases. But a chemical which is so devastating to malaria's vector, the mosquito, has also proved extremely hazardous to other plant and animal life, including humans.

Since 2003, the Central America and Mexico Regional DDT project encouraged the use of DDT alternatives to suppress the spread of the malaria parasite. Alternatives to persistent pesticides were demonstrated in eight countries: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama. The project created a multidisciplinary approach, working with doctors, epidemiologists, nurses, educators, local communities and politicians to fight malaria.

2011 saw the final phase of the programme: the safe disposal of vast stockpiles of DDT which had been presenting an environmental hazard for decades.



© Kai Loeffelbein/UNICEF

PROTECTING THE CHILDREN: UNEP / WHO PROJECT ON CHILDREN'S ENVIRONMENTAL HEALTH

Healthy children in healthy environments are essential for sustainable development. However, the health and well-being of children around the world is being compromised by a range of adverse environmental factors. Developing regions carry a disproportionately heavy share of the environmental disease burden and children in developing nations have the highest death rates. An estimated 4 million child deaths each year (mostly in developing countries) are linked to both traditional environmental hazards (unsafe water, lack of sanitation, contaminated food, indoor air pollution) and modern environmental hazards (outdoor air pollution, climate change, hazardous chemicals and waste).

In April 2011, UNEP concluded a major study on the impact of chemicals on children's health. Results of an intensive review of Children's Environmental Health (CEH) studies done in developing countries (Africa, the Asia Pacific and Latin America) confirmed the crucial role of environmental protection in the prevention of childhood exposure to chemical risks.

The findings of the report are an important contribution to the ongoing efforts to achieve global harmonisation of exposure (environment) and outcome (health) measures to promote risk management strategies for Children's Environmental Health.

4 MILLION

Estimated child deaths
globally per annum due to
environmental hazards



CAREFULLY CONTROLLING CHEMICALS: THE STRATEGIC APPROACH TO INTERNATIONAL CHEMICALS MANAGEMENT

In 2002, the Johannesburg World Summit on Sustainable Development declared the goal that, by the year 2020, chemicals will be produced and used in ways that minimise significant adverse impacts on the environment and human health. 2011 marked the half-way point towards the achievement of that goal,

139 Projects approved

\$30.18m
funding as of end 2011

whose custodian is the Strategic Approach to International Chemicals Management (SAICM).

By the end of 2011, SAICM has mobilised a total of over \$30 million for the Quick Start Programme (QSP). The funding has been allocated to 139 projects in 103 countries, 53 of which are least developed nations or Small Island Developing States. The QSP aims to:

- develop or update national chemical profiles and the identification of capacity needs for sound chemicals management;
- develop and strengthen national chemicals management institutions; and
- undertake analysis, interagency coordination, and public participation activities directed at enabling the implementation of SAICM in national strategies.

SAICM's guidance has been instrumental in draft legislation by the Cambodian Ministry of the Environment for policy to cover the whole life-cycle of chemicals in the country. Similar projects are under way in countries such as Uruguay, Nigeria and Belize.

SAICM held the first meeting of its open-ended Working Group in November 2011 in Belgrade, Serbia, to review SAICM's progress to date and to identify future priority areas. Also in 2011, a draft health sector strategy was developed to increase the involvement of the health sector in the implementation of SAICM's strategic approach.

In addition to its work on traditional chemicals, SAICM has also been concerned with developing overarching strategies to manage novel materials such as nanotechnologies and nanomaterials.

As technology in this field continues apace, SAICM concluded in 2011 a report on such materials with particular reference to related issues for developing countries and economies in transition.

BRIDGING THE INFORMATION GAP

Under the auspices of SAICM, the Chemical Information Exchange Network (CIEN) aims to enhance the capabilities of countries to obtain and share the Information needed for their national decision-making on the sound management of chemicals. UNEP has supported the extension of CIEN to Peru, Uruguay and Bolivia.

POP CHARTS: MONITORING PERSISTENT ORGANIC POLLUTANTS AROUND THE WORLD

To effectively deal with Persistent Organic Pollutants (POPs), it is necessary to have timely and accurate data on their presence in the environment. Between 2009 and 2011, UNEP assisted 32 countries with training and capacity-building in monitoring POPs. 20 training courses have been held at POPs laboratories in developing countries by experts from the Netherlands, Sweden and Spain.

In cooperation with WHO, mothers' milk samples from 55 countries showed which nations have most exposure to certain POPs. DDT, for example, was highest in Tajikistan and the Solomon Islands.

An interesting source of dioxin exposure was identified in some African countries where traditionally, pregnant women eat certain types of clay to overcome nausea: this geophagy results in concentrations higher than normally found in Africa.



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A BREATH OF FRESH AIR: INDIA AND CHINA PHASE OUT CFC-BASED INHALERS

Asthma and Chronic Obstructive Pulmonary Disease (COPD) are considered significant health problems across the globe. It is estimated that this disease affects over 300 million people worldwide and the death toll has been estimated at 250,000. More than 20 million Chinese are estimated to be suffering from asthma with a morbidity rate at 2 per cent. Every year, according to statistics, it kills nearly 62,000 people in China and the trend is rising.

Chlorofluorocarbons (CFCs) are commonly used as chemical propellant in metered-dose inhalers (MDIs), but CFCs deplete the stratospheric ozone layer. Ozone layer depletion can lead to an overexposure to ultraviolet radiation. China, the largest consumer of CFCs in the MDI manufacturing sector, uses CFCs for both local consumption and export. CFCs in China have

been phased out since 2010 as stipulated by the Montreal Protocol but have remained available for use in MDIs through Essential Use provisions in the agreement.

Some developing countries have taken the lead in the CFC phase-out efforts and the industry has played an important role in supporting the national initiatives. India is one of the states where the industry has taken a lead in the MDI sector and has successfully eliminated CFCs from their products.

In 2011, facilitated by UNEP Ozonaction as part of UNEP's mandate as an implementing agency of the Montreal Protocol Multilateral Fund, experts from the Chinese government and the pharmaceutical industry visited India to gain experience from India's CFC-based MDI phase-out.

"After discussion with the officials from Ministry of Environment and Forests, Ministry of Health and Family Welfare, and Food and Drug Administration of Government of India, we have understood India's strategies, policies and basic approaches on phase-out of CFC MDIs," said Ms. Zhang Peipei, Deputy Director of the Centre for Drug Evaluation of the Chinese State Food and Drug Administration. "The experiences are useful for China's CFC MDI phase-out. Under the framework of the strategies, guidelines and technical requirements for CFC MDI phase-out, we are concreting the communication with MDI industry, meanwhile the fast track of CFC-free MDIs approved is being set up.

" The phase-out of CFC-MDIs in China will be finished, premising upon the assurance of alternative products' safety and efficiency for patients in China. "

Ms Zhang Peipei,
Chinese State Food & Drug Administration

CHEMICALS IN PRODUCTS

Since 2009, UNEP has been conducting an in-depth survey into the use of chemicals in everyday products. In 2011 the project completed investigations into four key groups: textiles, electronics, toys and construction materials.

The study concluded that the current level of information that is provided about chemicals in products is not enough to allow consumers and other stakeholders to practise sound management of chemicals throughout the lifetime of the products. This is despite the fact that many sources of information exist, ranging from detailed substance lists to complex databases reporting on the chemical constituents of various products.

Many end-users have been able to successfully access such information, but others still feel they need more.

UNEP's workshop on the issue in early 2011 recommended the development of a non-legally binding framework to facilitate information exchange between producers and users of products.

BATTLING ENVIRONMENTAL CRIME ACROSS BORDERS PROJECT PATROL

Cross-border smuggling: the crime is often associated with drugs or human trafficking. But it's a large-scale environmental problem



too. Wild flora and fauna, as well as harmful chemicals and hazardous waste, are increasingly being transported across borders illicitly.

In the Greater Mekong subregion of south-east Asia, the borders are porous and often ill-guarded. Yet increased economic activity and greater social migration are putting border patrols under ever greater pressure. Crimes like illegal logging and the trafficking in forest products often go hand-in-hand with other criminal activity.

To fight the trend, UNEP has teamed up with the UN Office on Drugs and Crime (UNODC) and two leading NGOs in the region, to coordinate their efforts and to learn from each other's expertise through PATROL: Partnership on Combating Transnational Crime through Regional Organized Law Enforcement. Officials (such as immigration officers, police, customs and trade control) and policymakers in Cambodia, Thailand and Viet Nam have already started training and an assessment of training needs has been conducted in Myanmar.



© British Antarctic Survey

FIFTH INTERNATIONAL MARINE DEBRIS CONFERENCE

Marine debris is an increasing threat to livelihoods, wildlife, and human health. Marine litter is found in all the oceans of the world. It is estimated that as many as 8 million items of marine litter enter the world's waters every day. These range from street litter, domestic and industrial rubbish, and sea-based litter such as fishing nets and containers.

An estimated 100,000 turtles and marine mammals such as dolphins, whales and seals, are killed by plastic marine litter every year.

Despite decades of efforts to prevent and reduce marine debris, the problem continues to grow,

and by 2050 it is projected that the world will produce over 13.1 billion tonnes of waste—20 per cent more than present levels.

Against this backdrop, scientists, policy-makers and representatives of industry met in March 2001, in Honolulu, Hawaii, for the 5th International Marine Debris Conference. They were greeted by schoolchildren chanting: “Be fantastic, don’t use plastic”: and indeed, one of the major efforts of the conference was to bring together manufacturers such as Coca-Cola and Plastics Europe, to sign up to the Honolulu Commitment, a new, cross-sectoral approach to help reduce marine debris.

The commitment marks the first step in the development of a comprehensive global framework for the prevention, reduction and management of marine debris, to be known as the Honolulu Strategy.

6

Harmful substances
and hazardous waste



A BREAKTHROUGH YEAR OF SYNERGIES FOR THE **BASEL, ROTTERDAM AND STOCKHOLM CONVENTIONS**

BY JIM WILLIS

EXECUTIVE SECRETARY OF THE BASEL,
ROTTERDAM AND STOCKHOLM CONVENTIONS

In 2011, the Parties to the Basel, Rotterdam and Stockholm conventions embarked on a new, innovative and tangible phase of the synergies process.

At the three meetings of the Conferences of the Parties to the Stockholm, Rotterdam and Basel conventions held in April, June and October 2011, respectively, parties reached consensus on a path forward on synergies, as well as a number of significant technical and policy matters.

The Stockholm and Rotterdam meetings in Geneva resulted in new listings for control of hazardous chemicals and pesticides and new initiatives to strengthen the scientific underpinnings of chemicals management. The Basel and Stockholm COPs also agreed to new synergistic relations between an expanded number of designated Regional Centres serving to bolster implementation on the ground.

Meeting in Cartagena, Colombia, Parties at Basel COP10 agreed on a way forward on the amendment banning transboundary movements of hazardous wastes from OECD countries to developing countries. For a number of reasons, the Ban Amendment has not yet entered into force, while trade in hazardous waste for resource recovery has grown significantly in the intervening decades, including between developing countries.

Basel COP10 recognized this shift and in a historic decision agreed to an approach that will

allow the Ban Amendment to enter into force for those countries who wish to adhere to it. At the same time, Parties agreed to a framework to build a regime for countries who may wish to trade in waste to ensure the minimization of health and environmental impacts.

In launching the synergies process, Parties established the goal of strengthening implementation of each convention while delivering services in an efficient, cost-effective manner. Improving the delivery of service to parties is the sine qua non of the Secretariat.

Among the most visible benefits to Parties has been the integration of conference services and meeting support, which contributed to successfully holding our first three paperless COPs. The recent conferences drew praise for being among the smoothest and most productive meetings in the entire history of the conventions (the “miracle of Cartagena”).

The COPs approved the proposed cross-cutting and joint activities for inclusion in the programmes of work of the three Secretariats for 2012–2013 and authorized the Executive Secretary to determine the staffing levels, numbers and structure of the Secretariat in a flexible manner within the ceiling established by the decision on financing and budget for the biennium 2012–2013.

Working in consultation with Parties through the bureaux, I have submitted a proposal for

the organization of the Secretariats, including staffing levels, numbers and structure, to be implemented by 31 December 2012. The proposed future structure would establish a single integrated secretariat dedicated to serving all three conventions equally, and would consist of four branches covering administrative services, convention operations, technical assistance and scientific support.

The proposed future structure would also considerably simplify the organization of the secretariat, and ultimately reduce the number of senior managers.

Eliminating redundancies, identifying resource savings, building upon best practices, and strengthening the focus on delivery of services to Parties are key considerations that should translate into increased support to Parties. A secretariat better able to deliver services related to all three MEAs simultaneously would be better able to influence synergies externally, for example through supporting synergistic projects delivered through regional centres or by IGO partners.

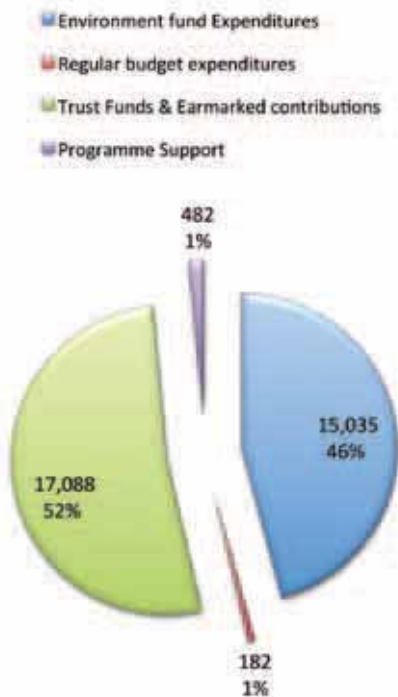
The synergies process of the chemicals and waste MEAs is part of a larger effort aimed at overcoming fragmentation within the global system of environmental governance. Our experience shows that it is indeed possible to break away from “business as usual” and do much more through cooperation and collaboration in ways that were once hardly considered possible.



7

RESOURCE EFFICIENCY AND THE GREEN ECONOMY

TOTAL EXPENDITURE 2011
RESOURCE EFFICIENCY
\$32,787,000



All figures in 000s

ACCELERATING THE TRANSITION TO RESOURCE-EFFICIENT SOCIETIES

UNEP aims to ensure that natural resources are produced, processed and consumed in a more environmentally sustainable way. UNEP's work focuses on four key areas:

- Conducting assessments of trends in the extraction and use of resources in the global economy.
- Supporting governments in developing national policies and implementing national solutions through regulatory and economic instruments and policy initiatives.
- Leveraging insights from scientific and macroeconomic analyses to identify



investment opportunities for alternative business models and improvements in the processes of existing, resource-intensive industries and supply chains.

- Raising awareness and influencing the purchasing choices of individual and institutional consumers as well as changing the way products and services are designed, produced and disposed of.

RESULTS TARGETED

Resource efficiency is increased and pollution is reduced over product life-cycles and along supply chains.

Increased investment in clean, efficient and safe production methods through public policy and private-sector action.

Enhance and inform consumer choice to favour more resource-efficient and environmentally-friendly purchases.

2011 TOWARDS A GREEN ECONOMY AND RESOURCE EFFICIENCY

- 2011 saw the launch of the flagship report of the International Resource Panel, **Decoupling Natural Resource Use and Environmental Impacts from Economic Growth**. The report provides empirical

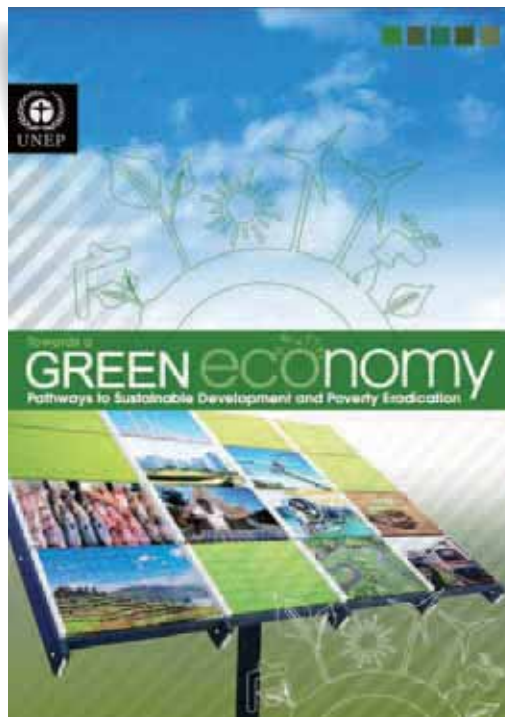
evidence of the links between economic growth and resource use, and lays the foundation for action to decouple.

- The International Resource Panel (IRP) also published **Recycling Rates of Metals: A status report**. The report quantified recycling rates of metals, with the surprising finding that recycling rates of many strategic metals are less than 1 per cent.
- UNEP, through the IRP, partnered with the World Resources Forum Secretariat to organise the **2011 World Resources Forum**. This multidisciplinary event brought together experts and stakeholders from around the world to share information on resources. A declaration was developed at the conclusion of the conference calling for transformative improvements in resource efficiency.
- 2011 saw extended work in **Green Economy Advisory Services and Capacity Building**. UNEP is working with over 20 countries in Asia and Pacific, Latin America and the Caribbean, and the Middle East, at the regional and national levels, to conduct scoping studies, provide technical advice and foster multi-stakeholder dialogues.
- In November 2011, UNEP supported a workshop in Rwanda, where East African nations examined policies required for implementing a green economy transition. Also in November, the Arab Forum for Environment and Development launched a report, **'Green Economy in a Changing Arab World'** at a conference in Lebanon, where over 500 delegates adopted recommendations for transitioning to a

Green Economy. Technical meetings were held in China to advance its national Green Economy plans.

- UNEP and the Inter-American Development Bank co-organized a meeting to explore support for Green Economy initiatives in Latin America and the Caribbean, and studies to advance Green Economy initiatives are underway in Brazil and Mexico.
- In September 2011 Ivory Coast adopted its National Sustainable Development Strategy (NSDS), coordinated by the National Sustainable Development Commission. UNEP has provided advisory services, technical and financial assistance to Ivory Coast since 2009 to mainstream Sustainable Consumption and Production in the NSDS, which will be a key element in the countries' national development strategy.
- In January 2011, the **Global Partnership for Sustainable Tourism** was launched. The Global Partnership already has more than 85 members, including 19 governments, 8 UN agencies and programmes, 33 non-for-profit organizations, and 10 business groups.
- The **2011 Business and Industry Global Dialogue (BIGD)**, held in April 2011, introduced the key findings of the Green Economy Report and solicited feedback from business and industry – being a key partner in the transition to a resource efficient and Green Economy. The 200 participants from over 20 countries made renewed commitments to work together towards Rio+20 and beyond.

GREEN economy



WHAT IS A GREEN ECONOMY?

UNEP defines a green economy as one that results in improved human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as one which is low carbon, resource efficient and socially inclusive.

Practically speaking, a green economy is one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency,



and prevent the loss of biodiversity and ecosystem services. These investments need to be catalysed and supported by targeted public expenditure, policy reforms and regulation changes.

This development path should maintain, enhance and, where necessary, rebuild natural capital as a critical economic asset and source of public benefits, especially for poor people whose livelihoods and security depend strongly on nature.

PATHWAYS TO A GREEN ECONOMY

2011 saw the publication of UNEP's flagship report, **Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication**. Launched in Beijing in September, it was the culmination of a three-year research effort compiled by UNEP's Green Economy Initiative, in collaboration with economists and experts worldwide. It demonstrates that the greening of economies is not generally a drag on growth but rather a new engine of growth; that it is a net generator of decent jobs, and

that it is also a vital strategy for the elimination of persistent poverty. The report also seeks to motivate policy makers to create the enabling conditions for increased investments in a transition to a Green Economy.

Launching the report, UN Secretary-General Ban Ki Moon said: *"With the world looking ahead to the Rio+20 UN Conference on Sustainable Development in June 2012, the UNEP Green Economy report challenges the myth that there is a trade-off between the economy and the environment. With smart public policies, governments can grow their economies, generate decent employment and accelerate social progress in a way that keeps humanity's ecological footprint within the planet's carrying capacity."*

CASE STUDY FOR THE GREEN ECONOMY BARBADOS

Barbados is one of the Caribbean nations spearheading the transition to a Green Economy. And, with the help of UNEP and experts from the University of the West Indies, 2011 saw the first steps taken along that route. In March, a Green Economy Scoping Study was launched, to help establish a resource-efficient economy in Barbados. The study focuses on areas identified by the Barbados government: housing and construction, transport, agriculture, fisheries and tourism. It will also examine the impact that Green Economy policies would have on issues such as water, waste, energy and land use. When the study is complete in late 2012, it will function as a long-term guide for integrated policies in other Caribbean nations and around the world.

TOWARDS A GREEN ECONOMY REPORT

200
authors

800
contributors

500
external reviewers



UNEP FINANCE INITIATIVE

UNEP Finance Initiative's 13th Global Roundtable drew record attendance and featured high-level speakers including Gordon Brown, Mary Robinson, Lisa Jackson, as well as CEOs and top executives from various financial institutions. Key outcomes of the meeting include proposed policy and regulatory interventions required to make a real change to the "rules of the game" – shifting the focus away from short-termism, and placing environmental and social factors at the heart of financial decision-making.

10-YEAR FRAMEWORK OF PROGRAMMES

The 10-Year Framework of Programmes on SCP (10YFP) is expected to serve as a global initiative assisting countries deliver the shift towards sustainable consumption and production and resource efficiency.

In 2011 a full agreement was reached at the Commission on Sustainable Development 19 on its elements. Countries are requesting now its formal endorsement at the Rio +20 summit in 2012, which could be an important building block of Rio+20 outcomes. The 10YFP builds upon the success of the Marrakesh Process and its task forces. Some key results are tools for implementing policies on areas, including sustainable public procurement, a Green Passport campaign to promote sustainable tourism, the development of an African eco-labelling system, the implementation of projects on sustainable lifestyles, projects on education for sustainable consumption in three countries, and a study on buildings and climate change with the development of Common Carbon Metric.

The challenge now is to scale up these practical solutions. To this end, UNEP set up in 2011 a Global Partnership for Sustainable Tourism and an Agri-Food System Taskforce together with other UN agencies, as well as contributing actively to the Partnership on Education and Research on Sustainable Living. UNEP also engaged with the private sector, through the Business and Industry Global Dialogue, the Sustainable Buildings and Climate Initiative and the Sustainable Rice Platform.



CITIES TOWARDS A SUSTAINABLE URBAN FUTURE

UNEP is supporting developing countries cities and city networks to develop and implement appropriate policies, through capacity building, technology and knowledge support on low-carbon urban development and resource efficiency.

In particular, UNEP, in collaboration with partners such as UN-HABITAT, the World Bank and Cities Alliance is supporting cities in better accessing carbon finance mechanisms and in assessing the city's environmental performance. These two major activities have been announced at the Gwangju Summit of the Urban Environmental Accords in October 2011 with representatives of local authorities from more than 100 cities worldwide.

CREATING CAPACITY IN DEVELOPING COUNTRIES AT CITY LEVEL

UNEP's project Sustainable Buildings Policies in Developing Countries intends to create capacity for developing countries to establish a policy foundation for mainstreaming sustainable construction of buildings, resulting in reduced greenhouse gas emissions. The project is currently pilot testing tools and methodologies in two African cities, Nairobi in Kenya and Ouagadougou in Burkina Faso.

WASTE NOT WANT NOT A NEW STRATEGY FOR SOLID WASTE

UNEP is assisting governments and the waste management industry to develop Integrated Solid Waste Management (ISWM) plans based on the 3R (reduce, reuse and recycle) approach for cities and towns.

- To raise awareness, political will and capacity for waste management comprising all stages of the waste management chain including waste minimization, waste collection and transportation, waste recycling and appropriate treatment, and disposal of waste.
- To increase the efficiency of resources and interaction among stakeholders by supporting an umbrella plan to integrate the management of all waste streams within administrative boundaries.
- To promote waste management as a business by encouraging local private sector and community enterprises to participate in waste collection, recycling, and proper treatment and disposal.

An ISWM plan for Wuxi, PR China

- Awareness raising for source segregation may result into diverting 30 per cent of waste for recycling, improved technologies at transfer station may lead achieve 60 per cent material recovery for recycling, and installation of biogas plants may convert 80 per cent of organic waste into energy source.



BUILDING A SUSTAINABLE FUTURE

How and where we live not only shapes our daily experience, but defines the global urban landscape. Many of us do not consider the impact of our homes and offices on the environment – either positive or negative – but buildings are responsible for more than one-third of global energy use, and in most countries are the largest source of greenhouse gas emissions.

Commercially available technologies have the potential to cut energy consumption in new and existing buildings by 30-50 per cent without significantly increasing investment costs.

UNEP's Sustainable Buildings and Climate Initiative (SBCI) is in the final stages of developing a sustainable building index and has piloted a standard methodology for building energy efficiency metrics and accounting: the Common Carbon Metric (CCM). Approximately 20 companies, green building councils, universities, and cities have participated in two pilot phases of the CCM over the last 18 months.

EVERY PURCHASE COUNTS: PROCUREMENT AND SUSTAINABILITY

“Sustainable Procurement is a process whereby organizations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimising damage to the environment.” **Procuring the Future – UK Sustainable Procurement Task Force, June 2011**

This definition was adopted by the Marrakech Task Force on Sustainable Public Procurement (SPP), led by Switzerland. Public spending can represent up to 30 per cent of national GDP and every purchase is an opportunity to drive markets towards innovation and sustainability.

Through Sustainable Public Procurement, governments can lead by example and deliver key objectives in the environmental, social and economic fields.

UNEP has been assisting seven countries (Chile, Uruguay, Colombia, Costa Rica, Tunisia, Mauritius and Lebanon) in the design and implementation of their sustainable public procurement policies and action plans. These countries have selected a set of sustainable products and services that will be progressively introduced in their procurement systems.



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THE YEAR OF LIVING SUSTAINABLY

UNEP's **Global Survey on Sustainable Lifestyles** was one of the first global surveys on the subject conducted at such a large scale, involving more than 8000 young adults from 20 countries. The aim was to listen to young adults' voices from around the world, to hear what they think, their aspirations for the future and reactions to sustainable lifestyles. The survey's results, which are presented in UNEP's report **Visions for**

Change: Recommendations for Effective Policies on Sustainable Lifestyles, reveal that young people, from Australia to Vietnam and Ethiopia to Mexico, want to be a force for change and create their own vision of sustainable societies. But at the same time, young adults need more information on what they can do to be part of the solution to address global challenges and how they relate to their lifestyles.

7

Resource
efficiency



8

UNEP IN THE UN

THE ENVIRONMENT AT THE HEART OF THE GLOBAL COMMUNITY

UNEP's mandate

Established in 1972, UNEP's mission is "to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations".

UNEP's mandate was expanded and rearticulated by the Nairobi Declaration adopted in 1997 "to be the leading global environmental authority that sets the global environmental agenda, that promotes the coherent implementation of the environmental dimensions of sustainable development within the United Nations system and that serves as an authoritative advocate for the global environment".

The graphic on the right shows just some of the UN agencies and programmes with whom UNEP cooperates on a daily basis, listing a select few of the myriad of joint activities covered.



WIPO
Intellectual property and Green Economy



UNCTAD
Capacity building for sustainable development



WORLD TRADE ORGANIZATION
WTO
Trade and climate change



UN HABITAT
FOR A BETTER URBAN FUTURE
UNHABITAT
Urban planning, transport



UNDP
Poverty Environment Initiative, Sustainable development



UNESCO
Biodiversity & ecosystem services



WFP
Climate adaptation



IFAD
Sustainable agriculture

IFAD
INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT



FAO
REDD+



IMF



WORLD BANK



UNFCCC
Key non-UNEP
administered MEA



UNCCD
Key non-UNEP
administered MEA



GEF

Major
funding
partners



UNEP



UNHCR
The UN Refugee Agency

UNHCR
Post-conflict and early warning



UNIDO
Cleaner
production



ILO
Green jobs



UPU
Green
postal
services

UN REGIONAL
COMMISSIONS

UNECA



UNECE

UNESCAP

UNESCWA

UNECLAC



OCHA

UNOCHA
Disaster response



IMO
Marine
pollution
prevention



UN
Volunteers

UNV
Skills exchange

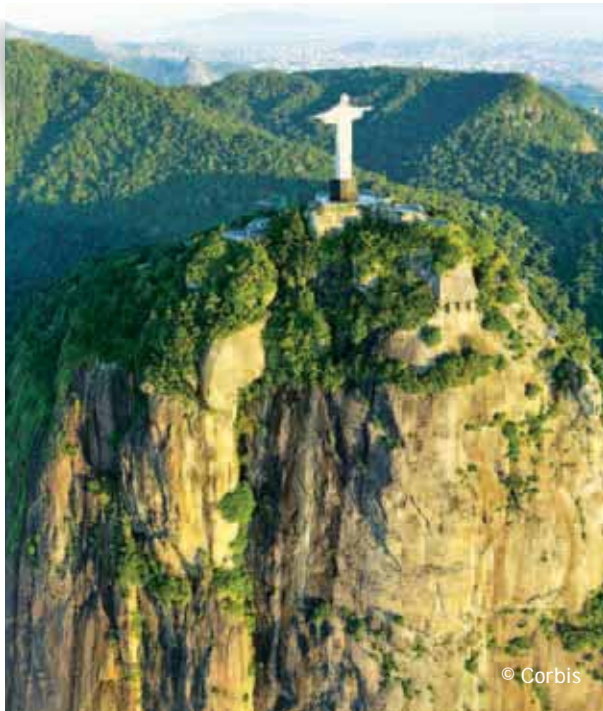


WHO
Environmental
health



UNITAR
UNOSAT





THE ROAD TO RIO+20

2012 will mark some major milestones in the race to realize sustainable development as nations navigate the final laps on the Road to Rio+20.

The **UN Conference on Sustainable Development (UNCSD)** as it is formally known, scheduled for June, will address two over-arching themes: a Green Economy in the context of sustainable development; and an institutional framework for sustainable development.

RIO+20, a head-of-state level summit, comes 20 years after the Rio Earth Summit of 1992 that set the course for contemporary sustainable development and established the Climate Change, biodiversity and desertification treaties as well as a forum on forests.

Throughout 2011 and into 2012, UNEP has been increasingly geared towards preparations for the summit.

UNEP's Secretariat, through the chairing of the UN's High-Level Committee on Programmes (HLCP) by the UNEP Executive Director, prepared a report on moving towards a fairer, greener, more sustainable globalization, and on several issues related to Rio+20 that warrant a common UN system-wide approach.

In his capacity as HLCP Chair, the Executive Director also facilitated the preparation of a common statement on the outcome of UNCSD by all UN system organizations, which they have submitted as a preface to their individual agency contributions to the compilation for the zero draft outcome document of UNCSD.

A milestone UNEP report, '**Keeping Track of our Changing Environment: from Rio to Rio+20**'. Based on environmental data and satellite imagery, this publication tracks changes in the human and natural environment that have occurred since the first Rio Conference in 1992 until the present day. The document shows that while some improvements in environment and human development have occurred, in most realms the environment continues to deteriorate or remain in a "steady state" at best. It highlights the need for more systematic data collection and monitoring, in order to support "evidence-based" policy-making.

The **UNEP Year Book** will be launched covering emerging environmental issues, such as the benefits of soil carbon and the decommissioning of nuclear reactors.

The **Global Environment Outlook-5 (GEO-5)** assessment report, with related publications

for Policy Makers, Local Authorities and Youth, will be published to contribute to the Rio+20 programme.

UNEP's regional offices have been consulting with member states and regional bodies to both solicit feedback and garner support for the Rio+20 summit agenda. In addition, the **Global Major Groups and Stakeholders Forum** in February, alongside the **UNEP Governing Council**, will allow civil society groups to consolidate positions and make alliances ahead of the negotiations.

UNEP is organising the **World Congress on Justice, Governance and Law for Environmental Sustainability**, to be held just prior to Rio+20. The World Congress will bring together Attorneys-General, Chief Prosecutors, Auditors-General (Cour des Comptes), Chief Justices and Senior Judges from around the world. The aim of the World Congress is to foster a common vision among those key stakeholders of how to transform discussions into action and use law, justice and governance to promote sustainable development.

UNEP's Green Economy team are organising a series of workshops and events in the run-up to, and on the fringes of Rio+20, focusing on the Green Economy and Sustainable Development.

The Partnership on Cleaner Fuels and Vehicles will be relaunched 10 years after its inception, with a shift in focus from fuels to cleaner vehicles. The Global Partnership on Resource Efficient Cities will aim to enhance the quality of life in urban area, particularly in the developing world. Additionally, there will be an online social game, Forward Rio+50, to educate and empower player to act on Climate Change and sustainable development.



UNEP's **GreenUp campaign** and its website, www.unep.org/greenup, aims to enhance public awareness of, and participation in Rio+20. In late 2011, the fashion designer Vivienne Westwood launched an exclusive t-shirt linked to the campaign.

The **UNEP Finance Initiative** will put forward its Principles for Sustainable Insurance, a global best practice framework for insurance companies to embed environmental, social and governance issues in their core businesses and strategies. UNEP FI will also use the platform of Rio+20 to launch the **Neutral Capital Declaration**, calling on financial institutions to commit to working towards integrating natural capital criteria in their products and services.

ENVIRONMENT MANAGEMENT GROUP: ACROSS THE UN

The **Environment Management Group (EMG)** is the UN system-wide coordination body on the Environment. Its membership consists of the specialized agencies, programmes and organs of the UN including the secretariats of the MEAs. It is chaired by the Executive Director of UNEP and supported by a secretariat provided by UNEP.

In 2011, EMG produced the first ever inter-agency report on the Green Economy, representing a collaboration between UN agencies, the Bretton Woods Institutions and other intergovernmental bodies. **Working Towards a Balanced and Inclusive Green Economy** highlights the need for more integrated approaches between international bodies, and emphasises that a Green Economy must be a “people-centred” economy.

The 2011 report **Global Drylands: a UN system-wide response** was EMG’s setting out of a common vision for action on drylands management and the UN’s role in addressing climate change and food insecurity through a positive development and investment approach.

The report is a milestone in the UN system’s support for UNCCD’s strategic plan, aiming to bring together the UN’s expertise, operational and logistic capabilities, and powerful advocacy role in the fight against dryland degradation.



GREENING THE BLUE

Greening the Blue is EMG’s system-wide approach to making the UN carbon-neutral in its operations.

Greening the Blue is the pan-UN initiative to make the operations of the United Nations carbon-neutral.

2011 was the year all UN organizations started work on Emission Reduction Plans, a key component in achieving carbon neutrality.

One mission which has already reached that target is the UNDP office in Bratislava, Slovakia, who, following the example of the new UNEP HQ in Nairobi, have installed an extensive solar energy network to achieve carbon neutrality.

Meanwhile in New York, the headquarters of the UN were plunged into darkness as the lights went out in support of Earth Hour, making a dramatic statement on the Manhattan skyline.

www.greeningtheblue.org/

AMPAI
HARAKUNARAK

GEF Task Manager
Bangkok, Thailand



On her way to her family home near the northern Thai city of Chiang Mai, Ampai Harakunarak knew that something was wrong.

“Travelling through the central rice plains, I was astonished by the huge volume of water there,” she recalls. “It was shocking. I remember thinking at the time, I wonder if this is headed for Bangkok?”

Her fears were well-founded: by mid-October, parts of the capital were under two metres of water. By November, at the height of the floods, over three million people had been affected and more than 500 had lost their lives.

Ampai knows better than most the devastating power of water. It’s her area of specialty, focusing on freshwaters, international and coastal waters. She currently manages four large-scale projects (budgeted at over \$1m) and three medium-scale projects (below \$1m). The geographic range is enormous: from the Russian Arctic to the Cook Islands of the South Pacific. In China,

her project looks directly at the issue of flood prevention and control. Yet the Thai floods of 2011 really struck home.

“The scale of this was unprecedented,” Ampai recounts. “There had been terrible flooding 50, 70 years ago—but the memories had faded. No-one really wanted to think about it happening again. But we’ve seen such development in Thailand in the last few decades, especially around Bangkok. It’s no wonder the city was hit so hard.”

Now Ampai is looking forward to bringing some of her experience from China and elsewhere to the effort in preventing a recurrence of the great floods of 2011. She wants to share UNEP’s wealth of expertise and skills, and discussions with the Thai Ministry of Natural Resources are already under way.

“Thailand has a great capacity for learning from disasters,” she says. “We saw that after the 2004 tsunami. Now, we have to look at proper management of water resources, and issues such as building and development controls.”

BARBARA J.
KRUMSIEK

Co-Chair
UNEP Finance Initiative



There was a time when it was hard to stir the public interest in finance and economics. But that was before the Financial Crisis. And now, projects and initiatives that UNEP and its partners have been developing for years, are attracting the attention of an increasingly wide audience.

That's something Barbara Krumsiek welcomes. As co-chair of UNEP's Finance Initiative, she welcomes the heightened awareness of the role finance has to play in people's lives. "We were holding our 2011 Global Round Table in Washington, DC," she recalls, "just as the Occupy movement was taking off in Wall Street. Occupy DC had set up camp just down the block from our meeting. There's been an enormous backlash against some of the outcomes of the work of our industry as a whole. It certainly served to focus the thinking at our meeting, about how we can be part of the solution."

With over 200 institutional members, UNEP FI is beginning to get the message through to investors, that the superficial profit line is not the only consideration they need to take into account.

"Our Integrating Reporting Initiative shows investors need not only financial data, but also 'off-balance' information: environmental, social and governance considerations," Barbara explains. "Getting this information in a consistent form means that we can speed the flow of capital to worthy projects. Capital moves when there is good data—without it, you can only make short-term decisions."

As President of the Calvert Investments, a leading US investment company, Barbara is aware that the finance industry and the environmental and development movements have not traditionally been easy allies. "Historically barriers have existed on both sides," she admits. "But they're being lowered. I think both sides realise that we can get more done by breaching those barriers than by hiding behind them."

With Rio+20 rapidly approaching, UNEP FI will launch its Principles for Sustainable Insurance, extending its guidance into another branch of financial services. "I have no doubt," says Barbara, "that in years to come, we're going to see more and more dollars flowing into the sustainable economy."

**MOUSTAPHA
KAMAL GUEYE**

Acting Head
Green Economy
Advisory Services Unit



“The Green Economy is being debated in Rio, and New York,” says Kamal Gueye, “but it’s being implemented on the ground. and in many cases, people don’t even know it.”

Part of Kamal’s job is enhancing the understanding of the Green Economy at a country level, usually in developing states. “We gather together a wide range of partners—governments, the private sector, civil society, academia—and encourage them to take an overview of projects which many of them are working on separately,” he explains. “The concept of the Green Economy may be new but corporate social responsibility, environmental concerns, green energy—many of these are already being addressed. So this helps us dispel the perception that Green Economy is a buzzword imposed by the North. In fact, many states are already working towards a Green Economy.”

Helping countries scale-up what may be already successful—but small—projects, is the other major part of his role. Kamal works with a team to undertake scoping missions and draft

Green Economy action plans for countries which request them.

“Sometimes governments say we just want you to help us spread the message of the Green Economy, and we’ll take it from there,” he says. “Others want us to help them integrate it into every aspect of their economic and development agenda.”

2011 saw Kamal holding seminars at the Durban summit in South Africa, as part of 12 national workshops that UNEP organized around the world. It was a proud achievement for the Senegalese national, who cites South Africa as one of the countries where his team has had most success in mainstreaming the concept.

“South Africa is very pro-active,” he says. “President Zuma himself has taken on board the concept and been very involved with advocating it to other states. It was incredibly exciting to see the participants in the conference exchanging ideas and learning from each others’ experiences. In a way, that’s what the Green Economy is all about.”

JOYCE SANG
Programme Officer
Children and
Youth, Nairobi



Tunza is a Swahili word meaning “Treat With Care”. It’s also the umbrella title for UNEP’s outreach activities with children and youth, and couldn’t be more appropriate, explains Joyce.

“Kids have a very sophisticated understanding of environmental issues,” Joyce explains. “They may be attracted to the subject out of care for wildlife. But once they are introduced to concepts like ecosystems, climate change and the Green Economy, they really get it. And they want to be involved.”

With a background mentoring inner-city children in Minneapolis, USA, Joyce knows that once children and youth are given a voice, the outcomes can be inspiring.

“Every year we organise the Tunza conference,” she says. “In 2011, it was in Bandung, Indonesia. Over 1400 young people gathered together to issue the Bandung Declaration for us to take forward to Rio+20. That’s a statement from the next generation that cannot be ignored.” That declaration—calling on the summit to move towards a sustainable development pathway—

also involved a commitment from the young people to advocate and campaign in their own communities.

“This is a very plugged-in generation,” says Joyce. “They understand how to spread messages very widely, very fast. They are using social media in a powerful way, networking with each other to push their agendas—and they’re actually prepared to hold governments responsible for the promises they make.”

Part of the Bandung Conference involved bringing together the youth of today with youth delegates from the original Rio Earth Summit 20 years ago, to share their experiences and to mentor the next generation. In particular, many of the youngsters expressed their determination to make this summit the one which really brings a change to thinking on sustainable development.

“There is a great deal of excitement about Rio+20,” Joyce adds. “I’m pretty confident that this generation will make things happen. They know how to get things done.”



**JOSEPH
KILONZO**

Team Assistant
Executive Office, Nairobi

Having worked with four Executive Directors—starting with Dr MK Tolba, back in 1978—Joseph probably has a longer history than anyone else at UNEP. Now approaching his final year—he retires at the end of 2012—he is one of the programme’s keenest advocates.

“UNEP is a family,” he says, “and like in a family, people get on best when they’re happy. I always try to make people happy, with a smile, or a joke. It’s such important work that we do here. I see my duty as helping them to do it.”

Starting as a messenger, Joseph is a familiar face around the Gigiri campus. He now gives clerical and administrative support to the Executive Office, which at times has involved meeting dignitaries such as Kofi Annan and Ban Ki-moon.

An avid reader of UNEP’s publications, he intends to spend his retirement spreading the organization’s message.

“When I grew up in Machakos, we were surrounded by trees and wildlife,” he recalls. “There was no conflict between humans and animals. Kenya was very different then. My family are farmers. Since those days, we’ve had to relocate many times, mostly because water has dried up. You could say we’re environmental refugees. So what I read about in the publications, the things that UNEP is warning about, I am seeing it in my everyday life.”

Joseph is proud of the work that UNEP has done in Kenya—campaigning to protect the Mau forest, the Aberdare ecosystem—but stresses that small efforts can be as powerful as big ones. That’s why, once he leaves UNEP and relocates to his family farm, Joseph has pledged to make his neighbours and community aware of how they can safeguard their future.

“I will always be working for UNEP, even when I’m not here,” he adds with a grin.



PIER CARLO SANDEI

Programme Officer
Regional Office for
Europe, Vienna

As a teenager growing up in Venice, Italy, Pier Carlo Sandei used to listen to the NATO warplanes taking off from nearby Udine airbase, bound for the Balkans. Today he works in the region as UNEP's Programme Officer, co-ordinating the Environmental Security Initiative—a multi-agency project bringing together groups including UNDP, the Organization for Security and Co-operation in Europe (OSCE) and NATO.

With so many agencies involved, it might be reasonable to anticipate differing agendas or clashes of institutional cultures. Not a bit of it, says Pier Carlo. "The partnership works really well," he says. "No-one is trying to eat from the other's plate. Sure, it's challenging at times, when it comes to setting out priorities or dealing with international counterparts. But that's the part I like most. And we all share the same vision."

That vision is a secure, stable Balkans. But while the ethnic tensions which tore Yugoslavia apart in the 1990s might now be less visible, many underlying environmental problems are just coming to the surface.

"We're dealing with the legacy the collapse of a state," Pier Carlo explains. "We have Communist-era industry right at the heart of

some very vulnerable communities. Mining sites which have been abandoned without any proper regulation or closure. In one case, toxic waste from industrial smelters right next to a local hospital."

The end of the Balkan wars left the region fractured. The Federation of Bosnia and Herzegovina and the Republika Srpska exist side-by-side, yet co-operation between the two entities is virtually non-existent. But environmental issues do not recognise ethnic or political boundaries. When the Environmental Security Initiative undertook the first ever consultation on a State of the Environment report for Bosnia-Herzegovina (which includes both entities), Pier Carlo was concerned that it would reopen old tensions.

"I thought people might complain that we were trying to make a political statement by dealing with Bosnia-Herzegovina as one country," he says. "But in the end, everyone realised that environmentally, this was the most sensible approach. We didn't have one complaint."

In September 2011, he capped off the achievement with a major meeting between delegates from both political groupings—a real example of communities coming together to address over-arching environmental issues.



ISABEL MARTINEZ

Programme Officer
Regional Office for
Latin America & the Caribbean

She describes it as one of the most magical places on Earth. And when she talks of Lake Titicaca, it is evident that Isabel Martinez is dedicated to her work protecting South America's largest lake. "It's a place where people are very attuned to nature," she explains. "Of course, a lot of the environmental problems there are caused by human activity. But once you meet the local communities, and begin to explain to them the importance of preserving the ecosystem, it's wonderful to see the goodwill in their response."

Although she has other projects under her supervision—rainwater harvesting in Guatemala and Coastal Ecosystem Management to name but two—for the last two years it's Lake Titicaca which has taken centre stage.

As well as educating and capacity-building within local communities to mitigate their environmental impact—projects in which Isabel works closely with UNDP and UNICEF—she has been driving moves to strengthen the relationship between the two states which share the lake, Bolivia and Peru. Just as the seemingly placid waters of the lake can be dangerously

deceptive, the politics of international waters can be difficult to navigate. "It was not easy when we first started," she recalls. "The political relationship between the two governments was stuck. But somehow we managed to gain the confidence of both countries. In 2011, we saw them begin to refresh their diplomatic agenda, and now there's a real will to effectively manage this shared resource."

As well as a bilateral masterplan for the lake, Isabel has been overseeing the monitoring efforts which are crucial to provide early warnings of dangers to this fragile ecosystem. With financial assistance from the government of Spain, thirteen laboratories have been set up and fully equipped at various locations on both the Bolivian and Peruvian shores.

With so much good work achieved, Isabel anticipates that other projects in the region will begin to take more of her time in 2012 than Lake Titicaca. But she will always retain a passion for the area. A Venezuelan, she is proud of having helped to preserve one of South America's wonders. But as she says of her work: "when we join the UN we are no longer nationals of one country—but become citizens of the planet".



**ANTONIO
PERERA**

UNEP Haiti Country
Programme Manager

2011 was the year when things began to return to normal in Haiti—if normal is a word which can ever be used about the poorest country in the western hemisphere.

The exact reason for Haiti's continued presence at the bottom of the development tables is unclear. "Over the years, millions and millions of dollars have been spent," says Antonio Perera, UNEP's Country Programme Manager. "But even as aid increased, in many cases results got worse."

It was an attempt to solve this conundrum which led Antonio and his colleagues to develop a study into 'Lessons Learned'—looking at those aid and development projects which had succeeded in Haiti, and why—with a view to implementing the findings in UNEP's mission. The report was complete, and just days away from launch in January 2010.

Then the earthquake struck.

The exact death toll is disputed, but the Haitian government estimates 316,000 people perished. In the worst tragedy to ever befall the UN, 103 colleagues were killed. Mercifully none of the UNEP staff lost their lives—although there was

hardly a person in the unit who was unaffected by the disaster.

"You live through a situation like this, you establish a relationship with a country and a people," says Antonio, a Cuban. "There are many similarities between my country and Haiti but also many differences. But after the disaster, our team was more determined than ever to assist the Haitian people."

The environment is a major factor in rebuilding Haiti. Since the quake, the UNEP country team moved their HQ out of Port-au-Prince to Port Salut, five hours to the south-west. It's an area renowned for its natural beauty—but also for the massive developmental challenges it faces.

"We've discovered that UNEP can have a big impact working in the field, focused one geographical area," explains Antonio. "With an intensive push on sustainable development projects we're seeing dramatic results, which we hope can be replicated elsewhere in the country."

One more lesson learned in Haiti—and more valuable experience to be shared with UNEP projects around the globe.

MAGDA NASSEF

Project Manager
Environment &
Livelihoods Initiative
Nyala, Darfur, Sudan



Nyala means “the place of chatting” in the Daju language, and it’s a description which Magda Nassef finds appropriate. “It’s a lively, vibrant, bustling city,” she explains. “There are so many ethnicities, so much atmosphere. A very interesting place to live and work. And mercifully,” she jokes, “the climate is cooler than Khartoum.”

Magda and her colleague, Dr Abuelgasim Adam, are the sole UNEP representatives in Nyala, where they are based at the UNOCHA compound. There, in partnership with Tufts University of the US, they are primarily occupied with research and advocacy projects around the pastoral communities of South Darfur.

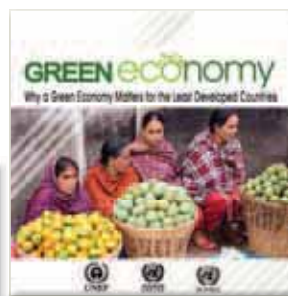
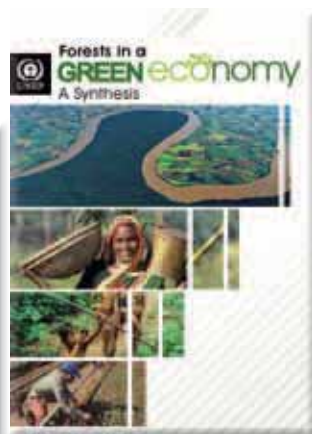
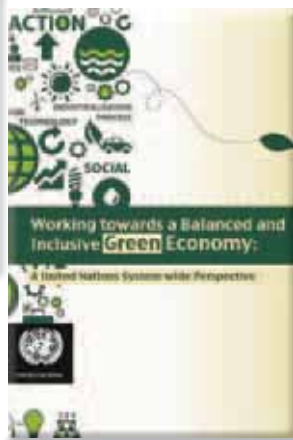
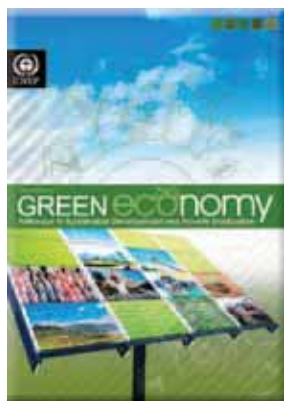
Darfur has become less prominent in the international media as tensions eased slightly following the Doha Agreement in 2011. But that does not mean that underlying problems have gone away. And, as Magda explains, the environment is often at the heart of the issue.

“Before the conflict, there tended to be a symbiotic relationship between the pastoralists and the agricultural communities. The pastoralists timed their annual migration to the agricultural areas just after harvest—allowing their stock to consume the plant waste and providing manure to the fields. But that’s all been disrupted. Conflict for natural resources is commonplace. And too often, we’re seeing skirmishes between rival groups.”

Learning more about the pastoralists’ needs and lifestyles will, Magda hopes, allow policy-makers to help resolve some of those issues.

Despite Darfur’s bleak reputation, Magda feels optimistic about the future. “The political dimension here is out of our hands,” she concedes, “but where it comes to building relationships between communities over natural resources, there is a lot of potential. I feel that if we can crack the environmental governance issue here, we can do so much work in terms of rebuilding from the ground up.”

2011 UNEP PUBLICATIONS



Towards a Green Economy: Pathways to sustainable development and poverty eradication

This report demonstrates that the greening of economies is not generally a drag on growth but rather a new engine of growth; that it is a net generator of decent jobs, and that it is also a vital strategy for the elimination of persistent poverty. The report also seeks to motivate policy makers to create the enabling conditions for increased investments in a transition to a green economy.

ISBN No: 978-92-807-3143-9

Working towards a Balanced and Inclusive Green Economy

A key report of the UNEnvironment Management Group on how the United Nations system can coherently support countries in transitioning to a green economy. The report aims to facilitate a common understanding of the green economy approach and the measures required for the transition.

Forests in a Green Economy: A Synthesis

Produced during the International Year of Forests, this synthesis addresses the value of forests and their role in transitioning to a green economy, with a call to invest in forests to aid the realization of a more socially inclusive, low-carbon and resource efficient economy.

ISBN No: 978-92-807-3143-9

Why a Green Economy Matters for Least Developed Countries

This joint report, issued by UNEP, UNCTAD and the UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS), points to the economic and human development opportunities of a green economy transition for the world's least developed countries.

ISBN No: 978-92-807-3143-9

Orangutans and the Economics of Sustainable Forest Management in Sumatra

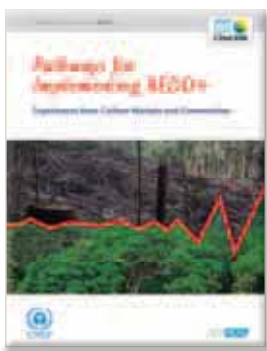
Deforestation is responsible for approximately 17 per cent of global greenhouse gas emissions, and is therefore a major contributor to climate change, but also to the loss of biodiversity and ecosystem services and a direct threat to Asia's great ape, the orangutan.

ISBN No: 978-82-7701-095-3

Share the Road: Investment in Walking and Cycling Road Infrastructure

Share the Road works to help re-balance the current state of road investments across all modes of transport. Current road investment trends and institutional/policy developments and options for mobilising investments are discussed, as well as the costs and benefits of non-motorised transport infrastructure.

ISBN No: 978-92-807-3125-5



Pathways for Implementing REDD+

REDD+ offers significant potential for rapid and low-cost emission reductions, with the added co-benefits of biodiversity, water and soil conservation, as well as poverty reduction. To date, more than four billion dollars in additional funding have been pledged by developed countries to support REDD+ activities in developing countries, which have in turn announced ambitious targets for emission reductions in the forestry sector.

ISBN No: 978-87-550-3854-7

REDDy, Set, Grow - Opportunities and Roles for Financial Institutions in ForestCarbon Markets

This publication - the first of a two-part report - is designed to identify and tackle barriers to investment in forest-related projects, such as the UN-backed Reducing Emissions from Deforestation and forest Degradation (REDD) scheme.

ISBN No: 978-92-807-3171-2

REDDy-Set-Grow Part II: Private Sector Suggestions for International Climate Change Negotiators

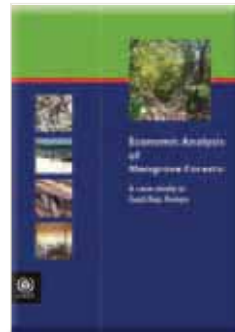
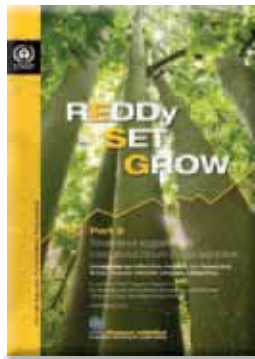
In this report, the financial sector voices suggestions to international climate change negotiators on how an effective regime for forest-based climate change mitigation should be designed to mobilise private finance engagement and investment.

ISBN No: 978-92-807-3207-8

Economic Analysis of Mangrove Forests: A case study in Gazi Bay, Kenya

The report features a detailed economic analysis of the mangrove forest in Gazi Bay, Kenya. It promotes the ecosystem as a valuable source of income for the local community. The results and methods can be applied to other sites in Africa in order to determine the importance of including the coastal forest into national accounts.

ISBN No: 978-92-807-3187-3



Global Guidance Principles for Life Cycle Assessment Databases: A Basis for Greener Processes and Products

LCA databases provide fundamental energy, materials, land, water consumption data and emissions data into water, air and soil for a wide range of processes, products and materials, in order to provide the bridge between the data users and providers, making basic information easily accessible for environmental choices.

ISBN No: 978-92-807-3174-3

Decoupling: Natural Resource Use And Environmental Impacts From Economic Growth

By 2050, humanity could devour an estimated 140 billion tons of minerals, ores, fossil fuels and biomass per year unless economic growth rate is decoupled from the rate of natural resource consumption, warns this report by UNEPs International Resource Panel. A massive investment in technological, financial and social innovation could lead to a more sustainable path.

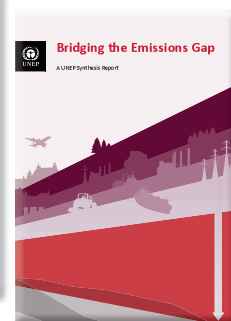
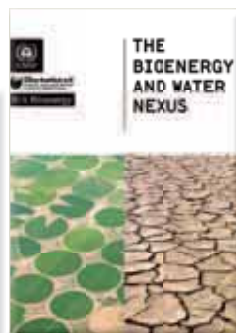
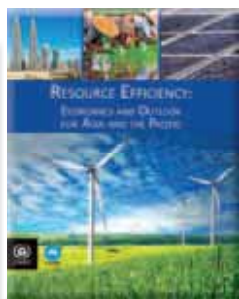
ISBN No: 978-92-807-3167-5

Recycling Rates of Metals: A status report

Smarter product designs, support for developing country waste management schemes, and encouraging developed country households not to 'squirrel away' old electronic goods in drawers and closets could help boost recycling of metals world-wide.

ISBN No: 978-92-807-3161-3





Visions for Change - Recommendations for Effective Policies on Sustainable Lifestyles

Recommendations to develop efficient sustainable lifestyles policies and initiatives based on the Global Survey on Sustainable Lifestyles (GSSL). It is aimed at policy-makers and all relevant stakeholders on how best to help support the shift to sustainable lifestyles, through effective communication and awareness-raising campaigns.

ISBN No: 978-92-807-3116-3

Resource Efficiency: Economics and Outlook for Asia and The Pacific (REEO)

The first Resource Efficiency: Economics and Outlook for Asia and The Pacific (REEO) report focuses on natural resources both as drivers and as consequences of economic activity and social development.

The report highlights the recent history of natural resource use in the Asia-Pacific region, covering the period from 1970 to 2005, which has been a time of unprecedented economic development in many countries in the region.

ISBN No: 978-92-807-3100-2

Green Hills, Blue Cities: An Ecosystems Approach to Water Resources Management for African Cities

Africa is the least urbanised region in the world, but this is changing fast. Of 1bn people, about 40 per cent live in urban areas—60 per cent in slum conditions. Africa is likely to experience some of the most severe impacts of climate change, particularly when it comes to water and food security.

ISBN: 978-92-807-3154-5

The Bioenergy And Water Nexus

Bioenergy and water are inextricably linked. For the first time, this report examines in depth these interlinkages, highlights the risks and opportunities, and offers an outlook on ways to address them. It

provides policymakers with scientific information to support informed strategies and policies. The report also points to the need for further research, filling data gaps, and the development of regionalized tools. Water quantity and quality are factors that determine the extent to which bioenergy can contribute to the overall energy mix.

ISBN No: 978-92-807-3157-6

Here and now! Education for Sustainable Consumption, Recommendations and Guidelines

Provides policymakers with a rationale for education for sustainable consumption, including suggestions for action plans, with resources for educational authorities, teacher trainers, teachers and educators.

ISBN No: 978-92-807-3073-9

Bridging the Emissions Gap: A UNEP Synthesis Report

A follow-on to the UNEP 2010 report **Emissions Gap: A Preliminary Assessment**. It explains to decision-makers and stakeholders the range of potential options available to close the emissions gap in 2020.

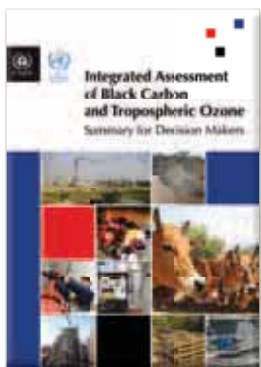
A Preliminary Assessment. It explains to decision-makers and stakeholders the range of potential options available to close the emissions gap in 2020.

ISBN No: 978-92-807-3229-0

Near-term Climate Protection and Clean Air Benefits: Actions for Controlling Short-Lived Climate Forcers - A UNEP Synthesis Report

This report addresses the mitigation of short-lived climate forcers (SLCFs) and its key role in air pollution reduction, climate protection and sustainable development. The focus is on three SLCFs - black carbon, tropospheric ozone and methane - because reducing them will provide significant benefits through improved air quality and a slowing of near-term climate change.

ISBN No: 978-92-807-3232-0



Integrated Assessment of Black Carbon and Tropospheric Ozone: Summary for Decision Makers

The assessment looks into all aspects of anthropogenic emissions of black carbon and tropospheric ozone precursors, such as methane. It examines a large number of potential measures to reduce harmful emissions, identifying a small set of specific measures that would likely produce the greatest benefits, and which could be implemented with currently available technology.

ISBN No: 978-92-807-3142-2

HFCs: A Critical Link in Protecting Climate and the Ozone Layer

This report describes the linkages between hydrofluorocarbons (HFCs) emissions, climate protection, and protection of the ozone layer.

ISBN No: 978-92-807-3228-3

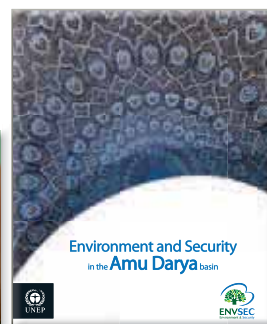
Livelihood Security: Climate Change, Conflict And Migration In The Sahel

The Sahelian countries are among the poorest in the world with the most degraded environments. They are also among the most vulnerable to climate change. UNEP's study focuses on Senegal, Guinea Bissau, Cape Verde, Mauritania, Mali, Chad, Niger, Gambia and Burkina Faso.

ISBN No: 978-92-807-3198-9

Environment And Security In The Amu Darya Basin

This report analyses the environment and security risks in the Amu Darya river basin, and suggests solutions to the challenges identified during the assessment process. The report concludes that boosting



cooperation between countries sharing the waters of the Amu Darya, Central Asia's longest river, could be key to future peace and security in the region.

Global Trends in Renewable Energy Investment 2011

Global investment in renewable energy jumped 32 per cent in 2010, to a record \$211 billion. In addition to this eye-catching record, the investment activity in developing countries increased strongly. It is the first time the developing world has overtaken the richer countries in terms of financial new investment. The Global Trends Report 2011 offers an elaborate analysis of trends and issues in the financing of renewable energy.

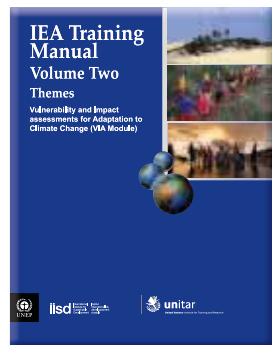
ISBN No: 978-92-807-3183-5

Technologies for Adaptation Perspectives and Practical Experiences

This edition of the Technology Transfer Perspectives Series collects ten articles from adaptation experts and practitioners around the globe. The articles discuss the concept of 'technologies for adaptation', divided into three broad themes: Concept and Context of Technologies for Adaptation; Assessments of Adaptation Technology Needs; and Practical Experiences from Working with Technologies for Adaptation

ISBN No: 978-87-550-3939-1





Women At The Frontline Of Climate Change - Gender Risks And Hopes

Women are often in the frontline in respect to the impacts of a changing climate. More frequent droughts and floods have economic and social consequences. Asia is currently at greatest risk with over 100 million people affected annually.

ISBN: 978-82-7701-099-1

IEA Training Manual Volume Two: Vulnerability and Impact Assessment for Adaptation to Climate Change

The publication presents a methodology to assess vulnerability to, and impacts of climate change, in the context of other development priorities.

ISBN: 978-92-807-3163-7

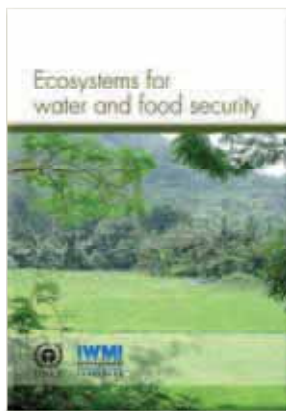
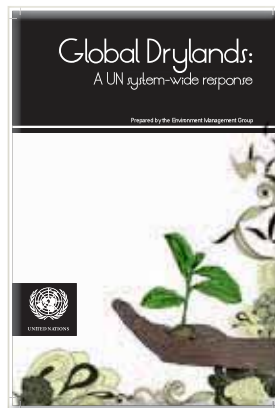
Global Drylands: A United Nations system-wide response

This publication, produced under the auspices of the Environment Management Group of the United Nations, argues that drylands in developing countries should be 're-capitalized'. This will require a cross-sectoral approach, something that the United Nations, with its global reach and wide range of activities and expertise, is uniquely positioned to catalyse.

Ecosystems For Water And Food Security

Against the current challenges to enhance food security worldwide, the publication aims at illustrating the importance of healthy ecosystems for the provisioning of key services that contribute to food security.

ISBN No: 978-92-807-3170-5



Transboundary Waters Assessment Programme (TWAP): Volume 1 - 6 Methodology for the Assessment of Transboundary Aquifers, Lake Basins, River Basins, Large Marine Ecosystems and the Open Ocean.

Many of the world's vital water systems are shared by two or more nations and these transboundary resources are interlinked by a complex web of environmental, political, economic and security interdependencies.

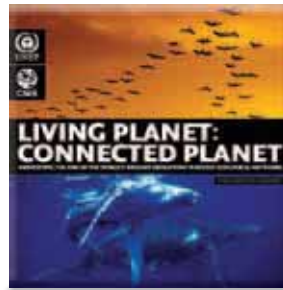
ISBN No: 978-92-807-3239-9

Marine and coastal ecosystem services

Economic valuation of marine and coastal ecosystem services is increasingly of critical importance for informed decision-making and effective management of marine and coastal resources. This report provides an overview of the main methods of economic valuation, their strengths and weaknesses, and practical applications.

ISBN No: 978-92-807-3160-6





Taking Steps toward Marine and Coastal Ecosystem-Based Management - An Introductory Guide

With this new guide on Marine and Coastal Ecosystem-Based Management (EBM), UNEP seeks to assist countries and communities to take steps towards making marine and coastal ecosystem-based management operational - from strategic planning to on-site implementation.

ISBN No: 978-92-807-3173-6

Guidance Manual For The Valuation of Regulating Services

This manual is directed towards practitioners in the field of environmental economics, and designed as a supporting tool for estimating the economic value of regulating services.

ISBN No: 978-92-807-3131-6

Living Planet: Connected Planet – Preventing the End of the World's Wildlife Migrations through Ecological Networks

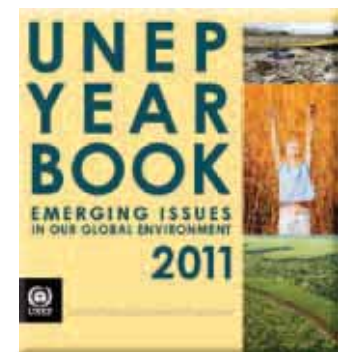
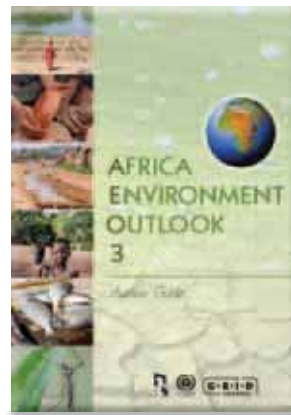
By air, land and water, millions of animals travel the world in a network of migratory paths. The loss of a single point in their migration can jeopardize the entire population, while their concentrations make them vulnerable to overharvesting and poaching.

ISBN: 978-82-7701-098-4

Environmental Assessment of Ogoniland

A major new independent scientific assessment, carried out by the United Nations Environment Programme (UNEP), shows that pollution from over 50 years of oil operations in the region has penetrated further and deeper than many may have supposed. The report recommends direct actions in order to address the Niger Delta contamination.

ISBN No: 978-92-807-3130-9



Africa Environment Outlook 3 - Authors guide

These guidelines are a reference point for all involved in the AEO-3 production process. The aim is to ensure consistency in the contributions to the report and guide the editorial and review processes. They should be used through all stages of the production process.

ISBN No: 978-82-770-1093-9

UNEP year book 2011: Emerging Issues In Our Global Environment

Focuses include marine waste and the use of phosphorus in food production. A special report on how biodiversity conservation can be integrated in forest management. How cutting edge science can mitigate climate change while improving air quality. The growth of renewable energy. These and other developments are summarized in key environmental indicators that present the latest data and trends for the global environment.

ISBN No: 978-92-807-3101-9



9

ORGANIZATIONAL STRUCTURE AND FINANCE

UNEP's mandate and focus are determined by its Governing Council, comprising 58 Member States. Member States to the Governing Council are elected by the UN General Assembly, for four-year terms, taking into account the principle of equitable regional representation.

There are 16 seats for African states, 13 seats for Asian states, six seats for Eastern European states, 10 seats for Latin American and Caribbean states, and 13 seats for Western European and other states.

The Committee of Permanent Representatives (CPR), which is made up of government delegates who are assigned to monitor UNEP's work, is a subsidiary of the Governing Council. The mandate of the CPR includes reviewing, monitoring and assessing the implementation of Governing Council decisions, reviewing the UNEP Programme of Work and budget and its subsequent implementation, and preparing draft decisions for consideration by the Governing Council.

Full information on the composition, functions and responsibilities of the UNEP Governing Council and the Committee of Permanent Representatives is available at www.unep.org/resources/gov

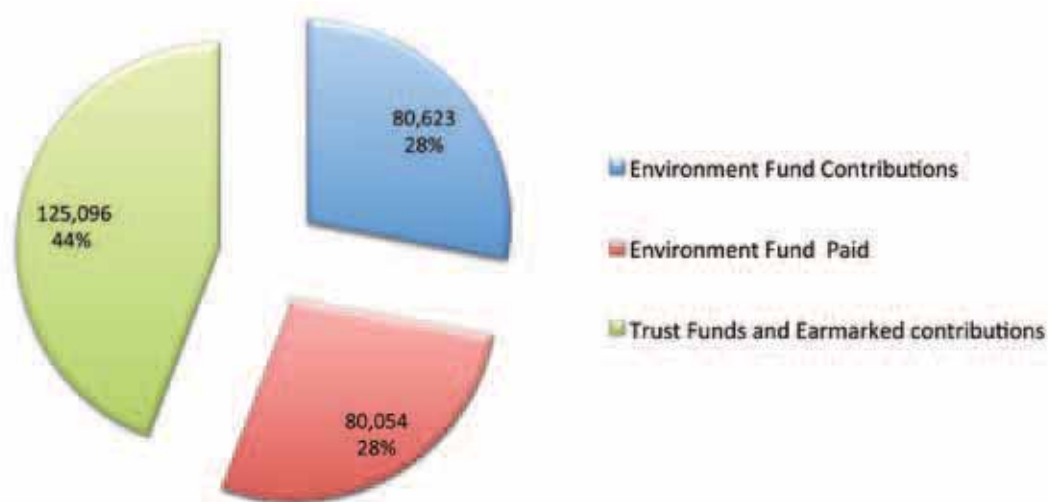
UNEP FUNDING IN 2011

- Estimated requirements for the approved Programme of Work and budget for the biennium 2010-2011 total \$448.0 million, including \$2.0 from the UN Development Account (UNDA), \$180 million from the Environment Fund, \$228.2 million in Trust and Earmarked Funds and \$40 million in other funds (including programme support costs and the UN regular budget). This translates into an estimated requirement of \$224 million for 2011.
- In 2011, 104 countries made their contributions to the Environment Fund; about 70 per cent of them paid close to, or above, the Voluntary Indicative Scale of Contributions (VISIC). 51 per cent of the income was received by 30 June 2011 with the remainder received in the second

six months with 14 per cent not received until December 2011. Member States are encouraged to make their contributions as early as possible for timely and more efficient delivery of UNEP's Programme of Work. The five highest contributors were Germany, the Netherlands, UK, USA and France.

- The ongoing financial crisis being experienced by UNEP's major donors, the unfavourable fluctuation in exchange rates, and reduced payments by two major donors affected the total amount of funds mobilized through the Environment Fund. As of 31 December 2011, Environment Fund income totalled \$81.1 million comprising 2011 pledges received of \$80.6 and a further \$0.5 million being 2010 pledges paid in 2011. The total income for the 2010-2011 biennium was \$162.7 million against a programme of work budget of \$180.0 million resulting in a deficit of \$17.3 million or 9.6 per cent.

2011 CONTRIBUTIONS AND PLEDGES (\$'000)

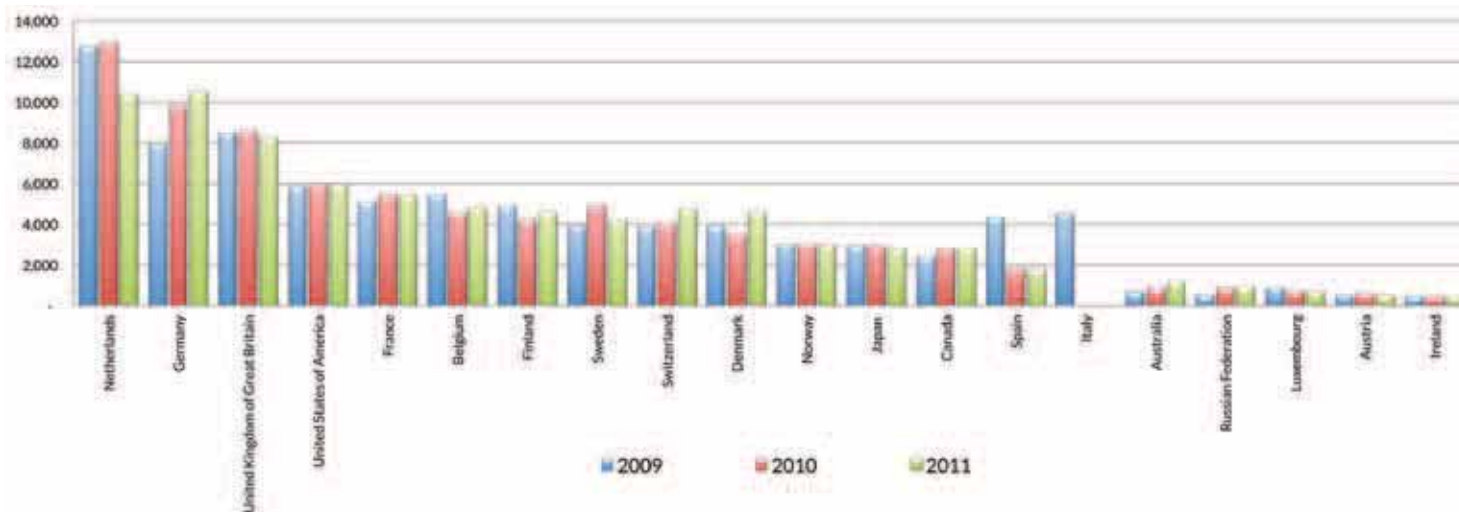


- Current 2012 Environment Fund income forecasts indicate that the budget of \$95.5 million might not be realized. In this regard, UNEP will continue to work on the basis of a reduction in the funding levels, which will have a negative impact on the implementation of its PoW. It must be noted that 2011 Environment Fund expenditures totalled \$85.5 million, which was \$4.9 million more than income with the difference being financed by fund balance. UNEP will, in 2012, take a precautionary approach to expenditures, particularly the filling of vacant positions, until such time as more income is secured.
- Income and expenditure performance in 2011 for Trust and Earmarked Funds exceeded the estimates reflected in the 2010-2011 budget. Income for 2011 totalled \$127.6 million. Expenditure totalled \$131.7 million – \$17.7 million (or 15 per cent) above the annualized expenditures of

\$114 million included in the 2010-2011 budget approved by the Governing Council. An accelerated rate of expenditure for Trust and Earmarked Funds in 2011 has ensured full delivery of the 2010-2011 Programme of Work.

- The highest overall Trust and Earmarked Funds contribution was provided by the Government of Norway. The Programme Cooperation Agreement for NOK 200 million for the 2010-2011 biennium is the second programmatic agreement between Norway and UNEP, which earmarks funds at the sub-programme level. Similar arrangements have been established with the Swedish International Development Cooperation Agency (Sida), resulting in a commitment of SEK 95 million in support of four sub-programmes during the period 2010-2013. Negotiations are ongoing with other major donors for the set-up of similar partnerships.

ENVIRONMENT FUND - TREND IN CONTRIBUTION IN 2009-2011, TOP 20 DONORS (\$'000)

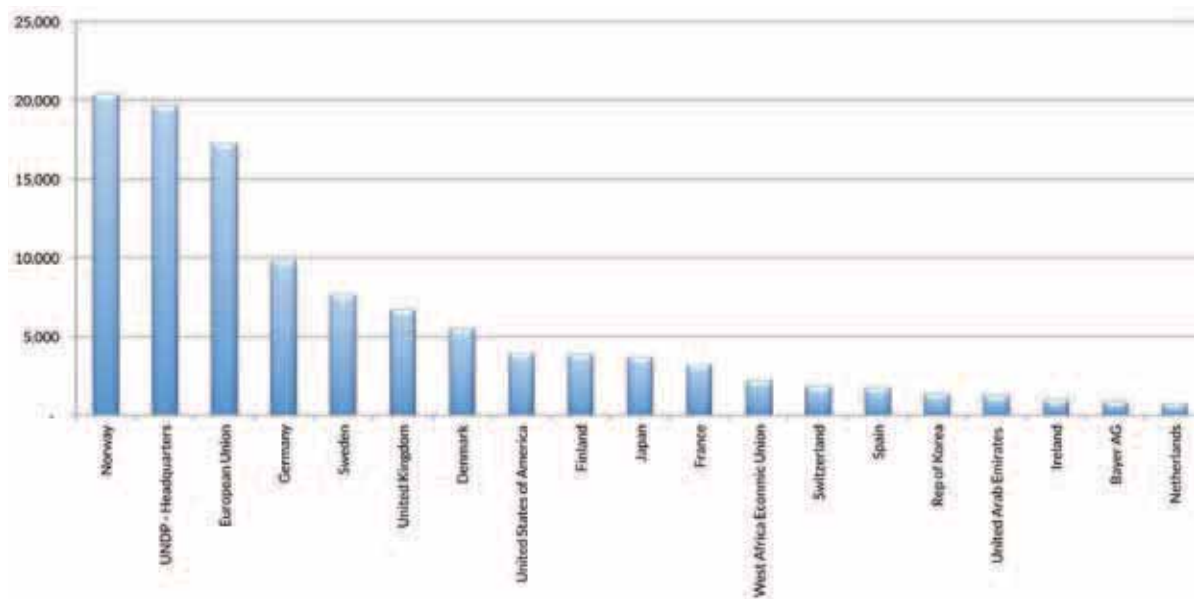


- Additional earmarked contributions were leveraged through increased collaboration with UN agencies. \$19.6 million was received through the United Nations Development Programme in the framework of joint cooperation programmes implemented by UNEP and UNDP. Additional funds were raised, for example, in collaboration with UN-HABITAT, the UN Department of Political Affairs (DPA), the UN Peacebuilding Support Office (PBSO) and the UN Department of Economic and Social Affairs (UNDESA) to support countries to improve natural resource management for conflict prevention and peacebuilding.
- In addition to resources made available by donors for multilateral aid, UNEP has been exploring opportunities to access aid funds provided at the bilateral level by Member States, including the European Union which has committed €30 million, to further broaden its funding base. UNEP is

also engaging with private sector and other non-State entities including foundations.

- As an example, two projects that have been funded through the bilateral aid channel by the Government of Denmark are the Kenya National State of Environment Report 2009 and Kenya Renewable Energy, for \$710,000. Over 190 institutions, including banks and insurance companies supported the UNEP Finance Initiative to analyse the impacts of environmental and social considerations on financial performance. Their contributions in 2011 totalled over \$2 million.
- While encouraging Member States to move towards contributions to the Environment Fund in preference to extra-budgetary funds in line with UNEP Governing Council's Decision 25/1 (IV), UNEP is working to leverage further extra-budgetary funds through new partnerships to catalyse wider change and achieve the results targeted for 2010-2011.

EARMARKED CONTRIBUTIONS AND TRUST FUNDS TOP 20 DONORS IN 2011 (\$'000)



ENVIRONMENT FUND – CONTRIBUTIONS IN 2011 * Pledge

	COUNTRY	2011 PLEDGES/ PAYMENT		COUNTRY	2011 PLEDGES/ PAYMENT
1	Andorra	42,192	54	Korea (Republic of)	221,722
2	Angola	1,200	55	Kuwait*	200,000
3	Antigua & Barbuda	1,000	56	Liechtenstein	9,000
4	Argentina	70,000	57	Lithuania	23,000
5	Armenia	2,500	58	Luxembourg*	704,225
6	Australia	1,167,503	59	Malawi*	900
7	Austria	550,140	60	Malaysia	40,000
8	Bangladesh*	653	61	Maldives	2,000
9	Barbados	5,000	62	Mali*	1,500
10	Belarus	16,000	63	Mauritius	5,000
11	Belgium	4,809,494	64	Mexico	350,000
12	Belize	900	65	Moldova	900
13	Benin*	900	66	Monaco*	28,782
14	Bhutan*	1,450	67	Mongolia*	1,000
15	Bulgaria	17,000	68	Morocco*	12,079
16	Burkina Faso	6,540	69	Namibia	1,750
17	Burundi	640	70	Netherlands	10,368,800
18	Cambodia	2,000	71	New Zealand*	230,000
19	Canada	2,800,000	72	Niger*	900
20	Chile	20,000	73	Norway	3,000,000
21	China	500,000	74	Pakistan	10,981
22	Colombia	36,448	75	Panama	10,000
23	Congo	850	76	Papua New Guinea	1,000
24	Costa Rica	4,054	77	Philippines	18,000
25	Croatia	33,000	78	Poland	150,000
26	Cyprus	40,000	79	Romania*	60,000
27	Czech Republic	38,038	80	Russian Federation*	900,000
28	Denmark	4,568,213	81	Rwanda	900
29	Djibouti*	900	82	Samoa	450
30	Dominica	1,000	83	Serbia	14,000
31	Ecuador	3,800	84	Sierra Leone	140
32	Egypt	25,000	85	Singapore*	40,000
33	El Salvador*	3,700	86	Slovak Rep.	55,000
34	Equatorial Guinea*	12,000	87	Slovenia	86,000
35	Eritrea*	900	88	South Africa	63,000
36	Estonia	13,974	89	Spain	1,741,720
37	Fiji	4,500	90	Sri Lanka	5,100
38	Finland	4,556,340	91	Suriname	883
39	France	5,440,000	92	Sweden	4,200,000
40	Gambia	1,000	93	Switzerland	4,744,591
41	Georgia	2,200	94	Thailand	25,000
42	Germany	10,496,639	95	Timor-Leste*	900
43	Guatemala	2,900	96	Togo	900
44	Guyana	1,000	97	Trinidad & Tobago	10,000
45	Honduras	1,000	98	Tunisia	8,700
46	India*	100,000	99	Turkey	300,000
47	Indonesia	37,000	100	Tuvalu	900
48	Iraq*	2,700	101	Uganda	5,000
49	Ireland	432,008	102	United Kingdom of Great Britian and Northern Ireland	8,211,870
50	Japan	2,818,436	103	United States of America	6,000,000
51	Jordan	3,500	104	Vietnam*	7,500
52	Kazakhstan	22,975			
53	Kenya	30,000		TOTAL	80,623,280

UNEP SENIOR STAFF 2011



1



2

1. STEINER, ACHIM

UNEP Executive Director
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General of the
United Nations

2. MOHAMED, AMINA

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3. ALCAMO, JOSEPH

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4. BOUVIER, CHRISTOPHE

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11. NUTTALL, NICK

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Division of Communications & Public
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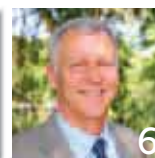
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11



12

12. THIAW, IBRAHIM

Director
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REGIONAL DIRECTORS & REPRESENTATIVES

13. ABDEL-KADER, ADEL FARID

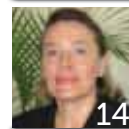
Officer-in-Charge
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13

14. ASTRÁLAGA, MARGARITA

Director
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15. DUSIK, JAN

Acting Director
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15

16. FRAENKEL, AMY

Director
Regional Office for North America (RONA)



16

17. GOUMANDAKOYE, MOUNKAILA

Director
Regional Office for Africa (ROA)



17

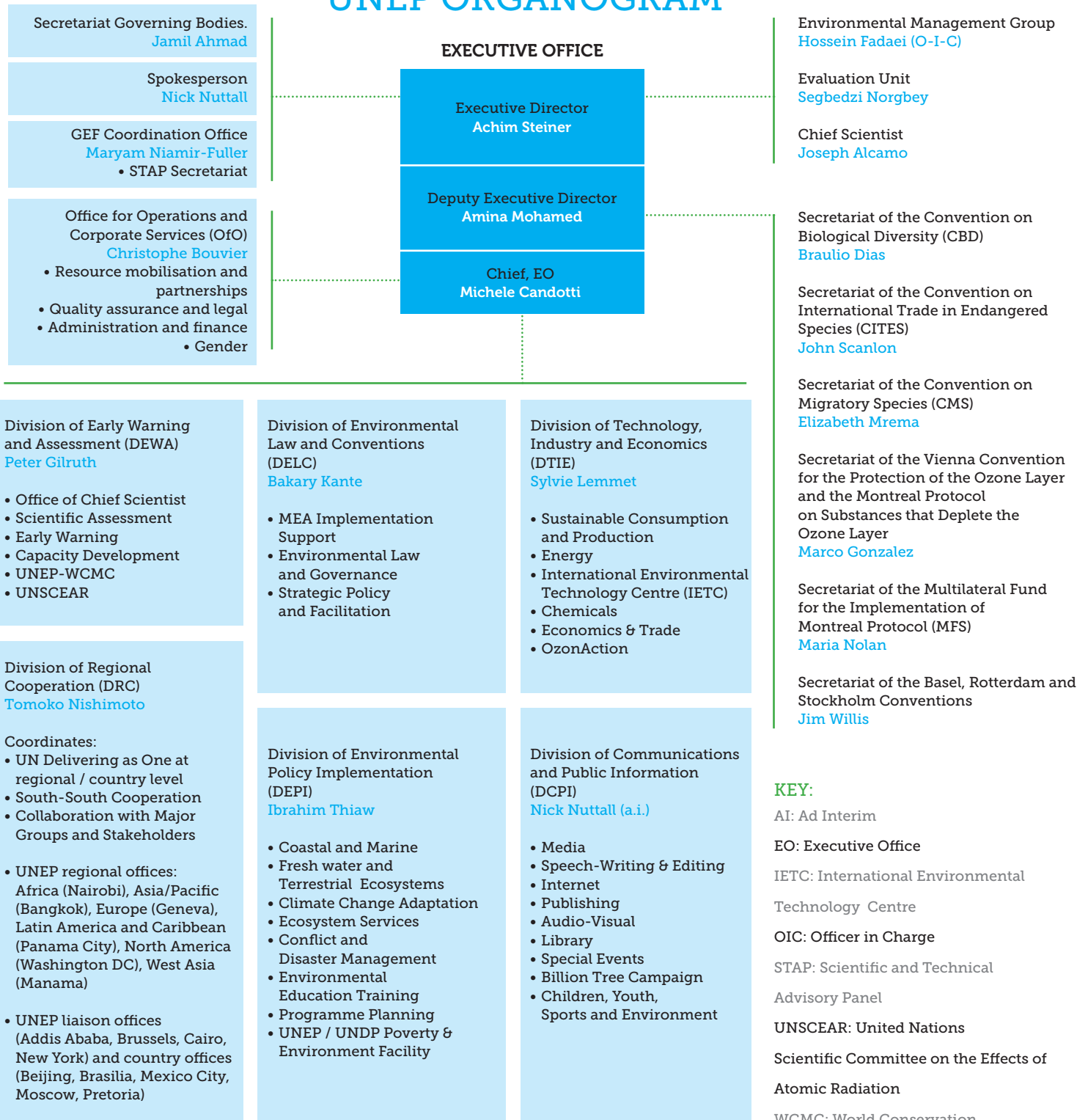
18. PARK, YOUNG-WOO

Director
Regional Office for Asia and the Pacific (ROAP)



18

UNEP ORGANOGRAM



KEY:

AI: Ad Interim

EO: Executive Office

IETC: International Environmental Technology Centre

OIC: Officer in Charge

STAP: Scientific and Technical

Advisory Panel

UNSCEAR: United Nations

Scientific Committee on the Effects of Atomic Radiation

WCMC: World Conservation

MonitoringCentre

AS OF SEPTEMBER 2011

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GLOSSARY OF COMMONLY USED ACRONYMS

CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species
CMS	Convention on Migratory Species
EMG	Environment Management Group
FI	UNEP Finance Initiative
FAO	Food and Agriculture Organization
GEF	Global Environment Facility
ILO	International Labour Organization
IMO	International Maritime Organization
MEA	Multilateral Environment Agreement
OARE	Online Access to Research in the Environment
OCHA	Office for Coordination of Humanitarian Affairs
PEI	Poverty Environment Initiative
POP	Persistent Organic Pollutant
REDD	Reducing Emissions from Deforestation and Forest Degradation
TEEB	The Economics of Ecosystems and Biodiversity
UNDAF	UN Development Assistance Frameworks
UNDP	UN Development Programme
UNESCO	UN Educational, Scientific & Cultural Organization
UNFCCC	UN Framework Convention on Climate Change
UNICEF	UN Children's Fund
WHO	World Health Organization



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