

UNITED NATIONS ENVIRONMENT PROGRAMME

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ANNUAL REPORT

SEIZING THE GREEN OPPORTUNITY



UNEP

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- * All dollar (\$) amounts refer to US dollars.
- * The term 'one billion' in this report refers to one thousand million
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2009



ANNUAL REPORT

SEIZING THE GREEN OPPORTUNITY



These icons appear throughout the report to indicate the six cross-cutting thematic priority areas identified for UNEP in its Medium-Term Strategy 2010-2013:



climate change



disasters and conflicts



ecosystem management



environmental governance



harmful substances and hazardous waste



resource efficiency and sustainable consumption and production

GREEN GROWTH

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05

MESSAGE FROM THE UNITED NATIONS SECRETARY-GENERAL



INSTIGATED AND ARTICULATED BY UNEP, the latest research by leading economists tells us that a significant greening of the world economy can be achieved with as little as 1 per cent of global gross domestic product invested in clean technologies, renewable energy and the sustainable use of natural resources. From major economies such as China and the United States, to least developed countries such as Rwanda and Haiti, a green economy mindset is gaining traction. As the title of this Annual Report suggests, we must seize this opportunity.

“Although the outcome of the Copenhagen conference did not go as far as many would have hoped, the Copenhagen Accord is a significant step forward in global efforts to address the climate challenge. We must now transform words into deeds and put the resources pledged at Copenhagen into play to assist the most vulnerable.”

— BAN Ki-moon, United Nations Secretary-General

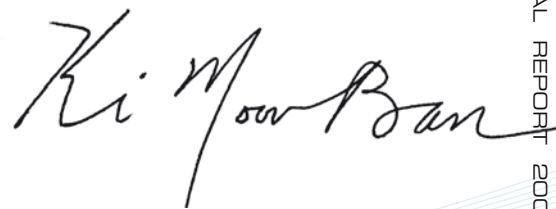
Among the most significant implications of the shift to a greener economy is its potential to mitigate climate change and assist countries in coping with its growing impacts. In the lead-up to the United Nations Climate Change Conference in Copenhagen, we saw unprecedented political engagement at the highest level from world leaders, buttressed by public support, business leadership, local government action and scientific research. People from all walks of life are getting more and more involved in efforts to combat climate change.

Although the outcome of the Copenhagen conference did not go as far as many would have hoped, the Copenhagen Accord is a significant step forward in global efforts to address the climate challenge. We must now transform words into deeds and put the resources pledged at Copenhagen into play to assist the most vulnerable.

We also need to move quickly towards a legally binding agreement. Achieving this goal will remain high on my list of priorities for 2010. To that end I will continue to rely on the support and creativity of the staff and management of UNEP, who deserve

great credit for their work in 2009 on the UN Seal the Deal! campaign and in implementing my call to move toward a climate neutral UN. The first-ever inventory of the United Nations greenhouse gas footprint, a collaboration of all UN agencies coordinated by the UN Environment Management Group, has taken us closer to transforming the United Nations into a low-carbon, resource-efficient institution for the twenty-first century.

Just as we mobilized the world behind climate action in 2009, so must we now, in 2010, renew our focus on the Millennium Development Goals as the clock ticks towards the agreed deadline of 2015. I will continue to count on UNEP for the leadership we need to ensure that environmental sustainability is recognized both as a legitimate goal in itself and as a means to achieving all our development objectives.



INTRODUCTION BY THE EXECUTIVE DIRECTOR



AS THE WORLD EMERGES from the deepest financial and economic crisis since the Great Depression of the 1930s, where will public policy and private investment go and flow over the coming year and decades?

2009 marked a moment when at least one new idea gained traction at the highest political level and among leading economists and think-tanks as perhaps a fresh and inspiring path to sustainability.

I refer to the Green Economy/Global Green New Deal Initiative, launched by UNEP some 15 months ago at a time when banks and businesses were imploding and millions of people were being laid off.

It remains a work in progress. But has achieved a degree of resonance and support in capitals from Seoul to Kigali and Berlin to Beijing that indicates a longevity above and beyond the current recovery cycle.

For at its heart are some pragmatic and central realities that some world leaders have grasped and several are determined to take forward.

Namely that the economic models, narrow market mechanisms and single issue development strategies of the twentieth century are unlikely to serve the needs and aspirations of six billion, let alone nine billion people by 2050.

Further, that if the global community is to meet the rapidly emerging climate, food and natural resource scarcity challenges of the present — or the very near future — investments have to be smarter, operate on multiple fronts and with far wider-ranging benefits.

Throughout 2009, UNEP and partners both in and outside the UN system, showcased how a Green Economy can operate across several key sectors and especially in respect to the headline issue of the year — climate change.

In February, UNEP and economists released a *Global Green New Deal* report to the annual gathering of environment ministers in Nairobi.

It suggested that one third, or around \$750 billion, of the then \$2.5 trillion worth of stimulus packages could — if allied to smart market mechanisms and fiscal reforms — go a long way towards stimulating and channelling investments.

Investments in areas such as clean-tech, sustainable transport, energy efficiency and other key sectors needed to decarbonize economies, build new and forward-looking businesses and generate decent employment in twenty-first century enterprises, including natural resource management.

The second thrust of the Green Economy is bringing ecosystems into the “engine room” of the national and global economic life.

The Economics of Ecosystems and Biodiversity (TEEB), called for by the G8+5 in 2007 and hosted by UNEP, is generating

new awareness and action on the economic losses occurring as a result of the damage, degradation and destruction of the planet’s natural capital.

TEEB is equally showcasing the opportunities from investing in the rehabilitation and maintenance of that capital, too. For example, an annual investment of \$45 billion could conserve ecosystem services from protected areas, delivering an estimated \$5 trillion a year — a cost-benefit ratio of 100:1.

The importance of ecosystems in terms of adaptation to climate change is well known. But their role, especially in respect to the climate change mitigating potential of marine ecosystems, has been all but invisible until now.

The Natural Fix? report, launched to coincide with World Environment Day and the global celebrations hosted by Mexico, concluded that the Earth’s living systems might be capable of sequestering more than 50 gigatonnes of carbon over the coming decades with the right market signals.

A follow up report launched in October 2009 and called *Blue Carbon* concluded that the world’s mangroves, salt marshes, sea grasses and other marine ecosystems may currently be locking away emissions equal to half the world’s transport emissions annually.

Forests represent perhaps the lowest-hanging fruit. Throughout 2009, UNEP in collaboration with the UN Food and Agriculture Organization and the UN Development Programme, took forward the UN’s Reduced Emissions from Deforestation and forest Degradation (UN-REDD) programme.

Nine countries are actively participating and several are now close to taking part in fully-fledged REDD activities.

The Copenhagen Accord, reached at the UN climate convention meeting in December, was neither the big breakthrough needed nor was it the big breakdown that seemed possible at one stage. The green light given to REDD was a notable step forward.

Factoring other land-based ecosystems into the carbon market equation is now on the radar. In 2009, UNEP — with funding from the Global Environment Facility and a global consortium of partners — launched the Carbon Benefits Project that is working with scientists, farmers, landowners and communities in Kenya, China, Niger and Nigeria to that end.

Bringing impartiality and solid science to shine on areas of heated debate such as climate change is a key role of the United Nations and an important piece in the Green Economy puzzle.

Take biofuels. Their merits in terms of combating climate change have triggered sharply polarized views, which is why they became the focus of the first report titled *Assessing Biofuels* by the new UNEP-hosted International Panel on Sustainable Resource Management.

The Panel's overall message was that a far more sophisticated approach — and one that fits into an overall energy, climate, land-use, water and agricultural strategy — needs to be taken when developing fuels from biomass and crops.

As is the case with biofuels, all too often sections of society can champion single, "silver bullet" solutions when dealing with persistent and emerging dilemmas.

This thread runs through the Green Economy Initiative and perhaps with extra special

resonance in respect to one of its themes, sustainable agriculture.

UNEP's *Environmental Food Crisis* report, also launched in 2009, argued that the relying on the paradigms of high-input yield maximization alone is unlikely to meet present and future food and environmental challenges.

An intelligent response, one that recognizes the role of ecosystems alongside soil fertility and water conservation while covering how food is grown to its production, distribution and consumption, is required.

One of the starkest findings centered on waste. Up to half of the food produced today worldwide is lost, wasted or discarded as a result of inefficiency in the human-managed food chain.

A constant theme of UNEP throughout 2009 is that the challenges societies face are complex — instead of being reductionist, this is a reality that must be addressed rather than ignored. Nowhere is this more relevant than in the quest for sustainable development.

One of the responses to the UN climate convention meeting in Copenhagen, both before and afterwards, was a call by some governments such as Brazil, France, Germany and Kenya for a new and more effective global body to address these challenges.

This may in part reflect frustration at the slow international response to climate change, as well as the pace at which many other persistent and emerging environmental and sustainability challenges are being addressed.

During 2009 there was a reconnection and a re-commitment by governments on the issue of international environmental governance.

“The Green Economy concept is also far from being set in stone. However, it is providing for some governments a rationale, blueprint and a focus for actively realizing many of those unmet sustainability goals, albeit and currently at the level of the nation State.”
— Achim Steiner,
UN Under-Secretary-General and UNEP Executive Director

UNEP’s Governing Council/Global Ministerial Environment Forum (GC/GMEF) in Nairobi established a consultative group on the issue which led to ministerial meetings in Belgrade and Rome.

The outcomes and proposals will be high on the agenda in February 2010 at UNEP’s forthcoming GC/GMEF in Bali, Indonesia.

Where this governance river will ultimately run remains to be seen. Nevertheless, there appears to be more shared and more active recognition among policy makers that the design specifications and machinery inherited from a previous century cannot meet the crosscutting challenges of the new one.

Fully and frankly addressing climate change remains a work in progress, as does the question of reforming international environmental governance.

The Green Economy concept is also far from being set in stone. However, it is providing for some governments a rationale, blueprint and a focus for actively realizing many of those unmet sustainability goals, albeit and currently at the level of the nation State.

To date, dozens of countries have sought assistance from UNEP on how to practically and effectively incorporate the principles of a low-carbon, resource-efficient Green Economy into their national economic and development strategies.

2009 has seen the Green Economy grow. The central challenge now is whether this can be embedded globally.

And, in doing so, provide 192 nations with a direction and perhaps a bridge from today’s economy to the kind of worldwide sustainable management of the planet that is not only needed but which is increasingly requiring and requesting international reform.

In the meantime, UNEP will continue to implement its reform agenda and the Medium-Term Strategy. “UNEP+” — a more effective, efficient and results-based programme delivering on its normative and scientific, as well as Bali Strategic Plan mandates — remained the focus of our efforts in 2009.

Developing the new Programme of Work for 2010-2011, aligning the Secretariat’s business processes through its change management projects, building the capacity of staff and partners to implement a results-based programme while at the same time delivering the 2008-2009 Programme of Work required strong commitment and effort by UNEP staff.

I would like to acknowledge their efforts and in particular that of UNEP’s Deputy Executive Director Angela Cropper without whose leadership we would not have succeeded.

Change does not come easy to any institution — and that holds true even more for a UN programme that is subject to complex and at times conflicting governance and management signals.

Notwithstanding the constraints and the undeniable challenges we faced in delivering on the UNEP+ agenda, the progress made in 2009 has resulted in greater capacity, competence and confidence for UNEP to play a vital role in addressing the evermore urgent challenge of sustainable development.



1,395 scientists were involved in UNEP's assessments

290 organizations from **88** countries participated in the 25th session of the UNEP Governing Council/Global Ministerial Environment Forum

500 million people worldwide viewed the environmental hotspots videos from UNEP Atlases on YouTube.com

18 countries received support from UNEP-UNDP Poverty and Environment Initiative

UNEP completed the **100th** Integrated Environmental Assessment in Latin America and the Caribbean

UNEP supported the development of over **30** UN Development Assistance Frameworks

\$112, 450, 431 - total funding for UNEP GEF projects approved in 2009

12,530 news clippings citing UNEP or the Executive Director

UNEP SUPPORTS ACTIVITIES IN OVER 100 COUNTRIES

50 Gigatonnes of carbon might be sequestered by the Earth's living systems over the coming decades, according to *The Natural Fix?* report

13 million signatures were coalesced through the **Seal the Deal!** campaign

54 countries participating in the PAN EUROPEAN BIOLOGICAL AND LANDSCAPE DIVERSITY STRATEGY agreed on **26** core indicators to halt biodiversity loss.

An annual investment of **\$45 billion** could conserve ecosystem services from protected areas estimated at **\$5 trillion** a year, according to The Economics of Ecosystems and Biodiversity study

UNEP is working with **15** developing countries to assess their **renewable energy** potential, and is helping over **25** countries to identify barriers to the uptake of clean technologies

50 organizations participate in the **GENEVA ENVIRONMENT NETWORK** which celebrated its **10th** anniversary

UNEP is assisting **35** countries to assess their capacity building needs in the areas of **biodiversity, climate change and land degradation**

More than **3,200** people from **139** countries have been trained through the Biosafety Clearing-House project

UNEP OzonAction's Compliance Assistance Programme now supports **147** developing countries, with nearly **100%** of them reporting on production and consumption of ozone-depleting chemicals

700 young people from **111** countries participated in the TUNZA Conference

UNEP conducted **32** environmental assessments in 2009

170 countries participated in the **Billion Tree Campaign**, planting over **7.4 billion** trees

1,705,900 visits to the UNEP website in June 2009 alone **13**

The **2009 CLIMATE CHANGE SCIENCE COMPENDIUM** received **260,192** DOWNLOADS

11,582 tonnes of greenhouse gas emissions—UNEP's carbon footprint calculated in **2009**

45 million people reached through **UNEP-Nickelodeon TV** campaign in Asia

The Convention on Migratory Species of Wild Animals celebrated its **30th** anniversary in **2009**

GREEN GROWTH 01



GREEN TO GROW. This vision of greener, cleaner, low-carbon and resource-efficient economies and societies underpinned UNEP's work in 2009.

From Bhutan to Burkina Faso and from New York to London to Seoul, the green economy message resonated at high-level meetings of the United Nations General Assembly, the G20 leaders' summit and community workshops on poverty and environment linkages alike.

Through groundbreaking reports, tailored advisory services and strengthened partnerships, UNEP in 2009 has positioned itself in the vanguard of the green economy movement.





GREENING THE WORLD ECONOMY

Launched in October 2008, the Green Economy Initiative (GEI) led by UNEP aims to shift national and world economies onto a new path to deliver better returns on natural, human and economic capital investments, while at the same time reducing greenhouse gas emissions, extracting and using less natural resources, creating less waste and reducing social disparities.

In 2009, the Initiative has been expanded to provide advisory services to countries interested in greening their economies, producing research products such as the *Green Economy Report*, and engaging partners to effectively promote and implement green economy strategies.

At the global level, UNEP published the *Global Green New Deal Report* and the subsequent *Policy Brief* calling on govern-

ments to seize the opportunity of their fiscal stimulus packages and help seed the transition to a green economy by investing in “green” sectors.

This advice was heard by world leaders who at the United Nations Conference on the World Financial and Economic Crisis and Its Impact on Development reaffirmed their commitment to foster “an inclusive, green and sustainable recovery” and support developing countries’ efforts towards sustainable development. In the same vein, the Group of Twenty (G20) leaders at their 2009 Summit in London pledged to “accelerate the transition to a green economy”.

At the regional level, a number of East Asian countries have adopted the Seoul Initiative for “low-carbon green growth in East Asia” at the East Asia Climate Summit in May. Meanwhile, more than a dozen national governments in Africa, Asia-Pacific, Europe and Asia have requested support from the UN for launching green economy initiatives



“...an investment of 1 per cent of global GDP (around \$750 billion) over the next two years could provide the critical mass of green infrastructure needed to seed a significant greening of the global economy.”
— Global Green New Deal Policy Brief

in their respective countries. For example, UNEP organized national workshops on environmental law and governance to promote the green economy in Cambodia, Lao PDR and Vietnam, in response to government requests. UNEP also launched pilot projects under the Green Economy Initiative in Azerbaijan, Armenia and Serbia.

With its focus on country-level work and promoting environmentally sustainable, pro-poor economic growth, the Poverty and Environment Initiative managed jointly by UNEP and the UN Development Programme (UNDP) complemented the Green Economy Initiative in 2009.

Eighteen countries in Africa, Asia-Pacific and Eastern Europe-Central Asia have received support in 2009, up from eight in 2007. Seven additional countries in Latin America and the Caribbean and in Asia-Pacific expressed an interest in getting assistance from the Initiative over the next years. Existing country programmes have received a further vote of confidence from donors resulting in joint programming such as with the Government of Denmark in Bhutan.

Within the UN family, 20 UN agencies issued a joint statement calling for a worldwide transition to a low-carbon, resource-efficient green economy. More than 12 UN agencies, as well as think tanks and academic institutions, are contributing to a global *Green Economy Report*, to be released in 2010, which will provide guidance on green investments in specific low-carbon sectors and the necessary enabling conditions. A broad-based Green Economy Coalition has also been initiated by UNEP to mobilize civil society and business in support of the Initiative.

To support business transition to a green economy, UNEP engages the private sector through fora such as the annual Business for the Environment (B4E) Global Summit. The 2009 B4E event concluded with the Manifesto titled *The Green Imperative*, in which participants called for drastically expanding investment in clean technologies and sustainable infrastructure systems in order to overcome the global crisis and pave the way for the global green economy.



PHOTOS:

1. G20 London summit
© www.mzv.cz
2. The announcement of the Green Growth Partnership between UNEP and the Republic of Korea.
L-R: Environment Minister of the Republic of Korea Lee Maanee and UNEP Executive Director Achim Steiner © UNEP



“On the environment, we have put in place an ambitious agenda to prevent climate change and we have proposed the creation of a Green Fund to the international community. For the first time in recent history, we have reforested and restored more acres of forest than are normally lost each year.”

— Felipe Calderón, President of Mexico

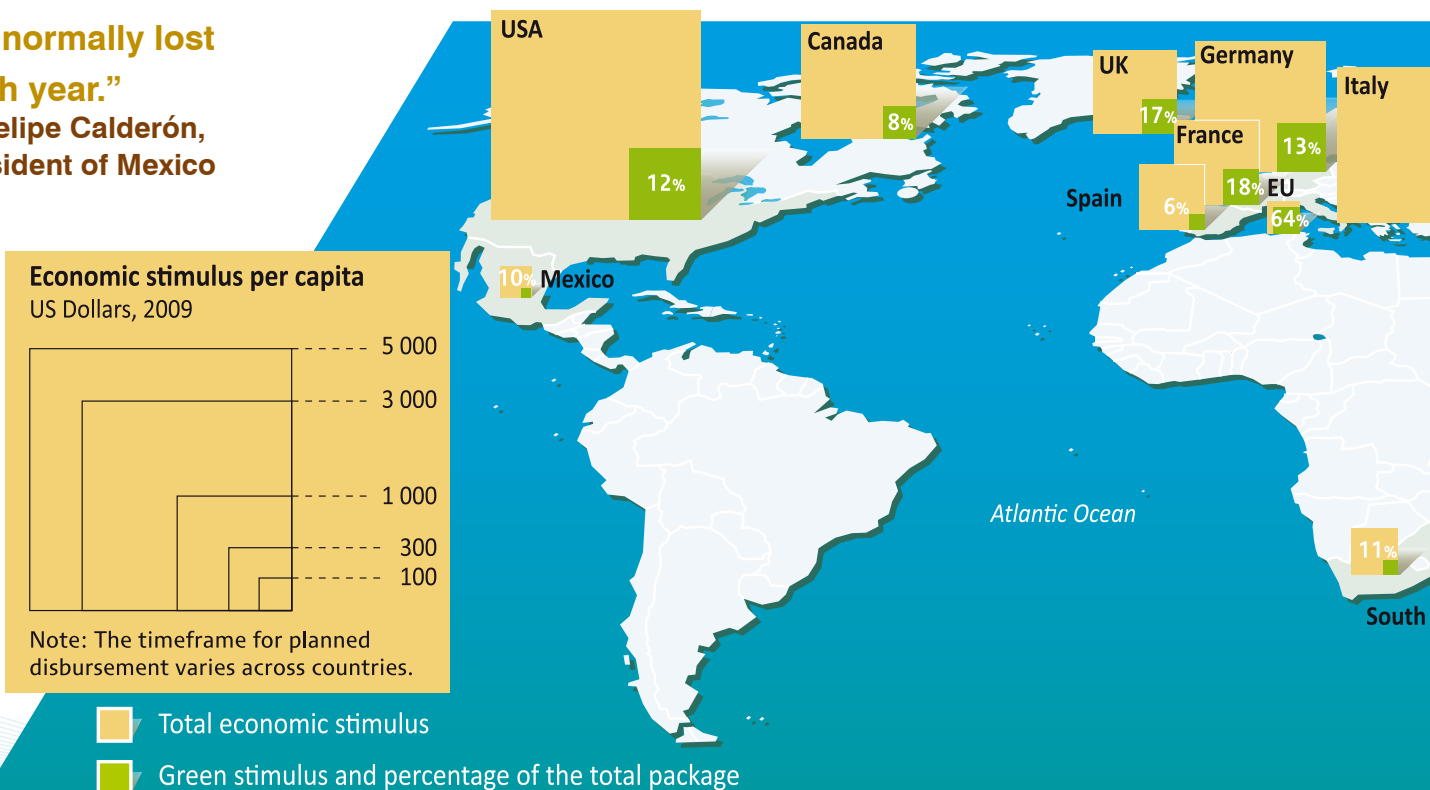
NEW DEAL FOR GOING GREEN

“The environment is our life-blood; indeed the real surprise is not that ministries of finance are now talking to ministries of environment — but that it has actually taken this long.”

— Paul Kagame, President of Rwanda

“We will step up efforts to develop green economy, low-carbon economy and circular economy.”

— Hu Jintao, President of China



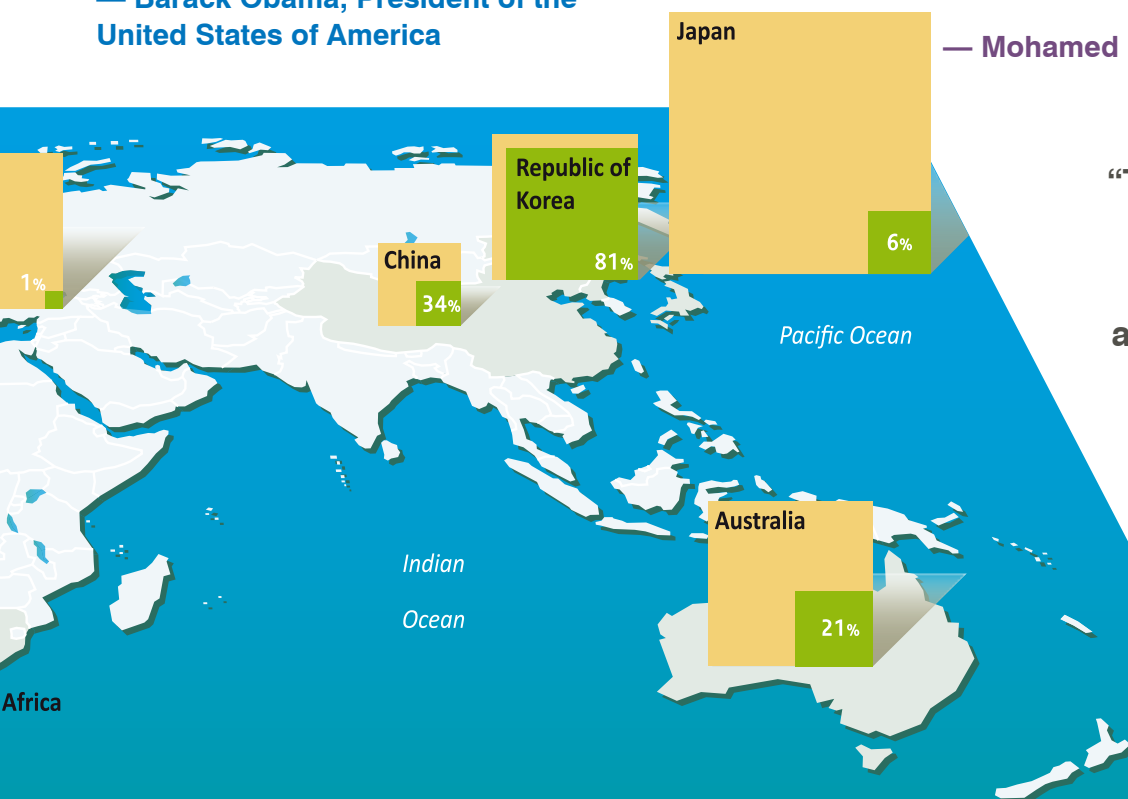
“What has now become clear is that the push toward decarbonization will be one of the major drivers of global and national economic growth over the next decade. And the economies which embrace the green revolution earliest will reap the greatest economic rewards.” — Gordon Brown, Prime Minister of the United Kingdom of Great Britain and Northern Ireland

“We take decisive action to build an internationally-competitive, green economy for the future.”
— Kevin Rudd, Prime Minister of Australia

“In the case of Korea, we set ‘Low-Carbon Green Growth’ as our new national vision.”— Lee Myung-bak, President of the Republic of Korea

“There’s something big happening in America in terms of creating a clean-energy economy.”
— Barack Obama, President of the United States of America

“By successfully decarbonizing our local economy, the Maldives can demonstrate that going green is not only possible but also profitable.”
— Mohamed Nasheed, President of the Republic of the Maldives



“Today, we stand on the threshold of a new, green economy, a truly new world order, which can rid the world of poverty and save the climate.”
— Jens Stoltenberg, Prime Minister of Norway

Source: UNEP, *Global Green New Deal: An Update for the G20 Pittsburgh Summit, September 2009*; HSBC.



GREENING WORLD TRADE, MARKETS AND FINANCE



PHOTOS:

1. Financial data and dealers in trading room © Mark Joseph/Getty Images
2. The Carbon Benefits Project will provide guidance and tools to boost carbon trading in Africa. Catchments in and around Lake Victoria have been chosen as a test-bed for calculating how much carbon can be stored in trees and soils when the land is managed in a sustainable, climate-friendly ways. © Frank van den Bergh/iStockphoto

How can markets and the financial sector reassess traditional thinking and practices, and explore the best way towards achieving sustainable financial markets and economies? How does climate change impact trade and what bearing do trade negotiations have on those regarding the future climate regime? What are the benefits of participating in the global carbon market? What is the cost of inaction on climate change? These are some of the questions UNEP addressed in 2009.

Contrary to some claims, trade and trade liberalization can have a positive impact on emissions of greenhouse gases in a variety of ways, including accelerating the transfer of clean technology, revealed the joint UNEP and World Trade Organization (WTO) report *Trade and Climate Change* launched in June 2009. The most comprehensive report to date underscored a profound need for a successful conclusion to the current negotia-

tions on both climate change and liberalizing trade in environmental goods and services, known as the Doha trade round.

Through its Finance Initiative (FI), UNEP has been working with over 180 institutions, including banks, insurers and fund managers, to understand the impacts of environmental and social considerations on financial performance. In 2009, UNEP FI focused on engaging the private sector in promoting “green” investments in climate solutions and the protection of biodiversity and ecosystem services.

The UNEP FI 2009 Global Roundtable, held in Cape Town in October, took the theme “Changing Finance, Financing Change”. Over 450 bankers, investors and insurers gathered to determine the future for new sustainable finance and responsible investment, in a bid to seek support for low-carbon growth for Africa and scale-up sustainable finance at the global level.

In partnership with a global group of investor and insurance networks, UNEP FI and UNEP Sustainable Energy Finance Initiative issued the report *Catalyzing Low Carbon Growth in Developing Economies*. The report outlined ways to deploy public sector funds most effectively to leverage private sector investment in low-carbon technology in developing economies at the scale required to avoid dangerous climate change — which experts estimate at around \$500 billion a year. Recommendations range

“With a challenge of this magnitude, multilateral cooperation is crucial and a successful conclusion of the ongoing global negotiations on climate change would be the first step towards achieving sustainable development for future generations.”
— Joint Statement by UNEP Executive Director Achim Steiner and WTO Director-General Pascal Lamy

from providing a comprehensive country and low-carbon policy risk cover to improving deal flow.

The first-ever global survey of the insurance industry, also produced by UNEP FI, further underscored this powerful sector’s fundamental role in speeding up the transition to a global green economy. The report builds a case for developing “Principles for Sustainable Insurance” similar to the “Principles for Responsible Investment”, which were launched by UNEP FI in 2006 and are now backed by more than 600 institutions representing \$18 trillion in assets.

Whetting investors’ appetite for the potentially rich African carbon market is the main objective of the Africa Carbon Asset Development (ACAD) Facility, supported by the Government of Germany, and the CASCADE (Carbon Finance for Agriculture, Silviculture, Conservation, and Action against Deforestation) programme with funding from the Fonds Français pour l’Environnement Mondial.

The objectives of the ACAD Facility are two-fold: to get innovative projects off the ground by complementing existing funds from banks and entrepreneurs; and to help African financial institutions understand the environmental and social benefits of carbon finance, including revenue generation, energy access, employment, and technology transfer. For its part, the

CASCADE programme, operating in seven sub-Saharan African countries (Benin, Cameroon, the Democratic Republic of the Congo, Gabon, Madagascar, Mali and Senegal), provides customized technical assistance to carbon finance project developers to enable their meaningful participation in the carbon market.

Calculating the concrete benefits through carbon sequestration from different types of land use — which, together with land-use change, account for 30 per cent of global carbon emissions — is the focus of The Carbon Benefits Project launched by UNEP and partners including WWF and Colorado State University with support from the Global Environment Facility (GEF).

UNEP and partner organizations also analysed the financial needs for climate change adaptation. The *Adaptcost Study*, produced by UNEP and the Stockholm Environment Institute, with funding from the Government of Norway, concluded that the costs could be equivalent to 1.5–3 per cent of GDP each year by 2030 in Africa, significantly higher than in other world regions.

But investing in adaptation measures today could deliver economic and environmental benefits that far outweigh the costs. Adaptation measures on average cost less than half of the economic loss avoided in the future, according to the report *Shaping Climate-resilient Development* produced by the McKinsey Project in collaboration with UNEP with GEF funding.





GREEN ENERGY



Helping governments and the private sector embrace low-carbon, renewable energy options and improve energy efficiency continued to be the focus of UNEP's work in 2009. For the first time, investments in renewable energy worldwide have overtaken those in fossil fuels — a symbolic threshold in the global transition towards a low-carbon future.

The *Global Trends in Sustainable Energy Investment Report 2009* — the annual appraisal of clean energy investment trends produced in cooperation with New Energy Finance — showed that global investments in renewable energy and energy efficiency reached record levels in the year 2008. Investment in renewable energy power generation surpassed investment in fossil fuelled power generation, with \$140 billion versus \$110 billion, respectively, according to the report.

A rising number of green energy and climate-friendly projects are up and running or being planned across Africa under the Clean Development Mechanism (CDM) — the main market mechanism of the UN Framework Convention on Climate Change (UNFCCC). The latest CDM update compiled by UNEP Risoe Centre for Energy, Climate and Sustainable Development shows that some 112 CDM Africa projects — worth a total of €212 million a year — are at the “validation, requesting registration or registered” stage.

Through the Sustainable Energy Advisory Facility, funded by the Government of Denmark, UNEP is working with 10 countries in Africa, Asia and Latin America and the Caribbean to weigh various energy options and make informed choices. It offers swift and flexible assistance to spur the development and application of sustainable energy policies, strategies and technologies.

In order to boost investor confidence, UNEP with support from the GEF, partnered with leading insurance companies on an innovative insurance scheme for renewable energy projects in developing countries. The web-based “insurance4renewables” facility consists of a network of risk management experts from over 130 countries who will conduct thorough assessments and provide tailored financial risk management instruments — with the ultimate goal of developing solutions to meet the needs of renewable energy markets worldwide. Just one month after the facility's launch, 24 insurance requests were received from 13 developed and developing countries.

“Bioenergy has been a hot topic in 2009, with views ranging from ‘a silver bullet’ to deliver on energy security, climate change and development, and ‘a crime against humanity’ impacting food security and destroying biodiversity.”
— Martina Otto,
UNEP
Bioenergy
Expert

To help industries reduce energy and material intensity and associated environmental impact, UNEP and the UN Industrial Development Organization (UNIDO) have launched the joint Resource Efficient and Cleaner Production (RECP) Programme and set up two National RECP centres in Albania and Mauritius.

On the “burning” issue of biofuels, UNEP has undertaken a set of activities, ranging from assessment reports to practical guidance for decision makers, to help maximize the potential benefits from bioenergy while minimizing the potential risks.

In October 2009, UNEP released the most in-depth assessment to date in the publication *Towards Sustainable Production and Use of Resources: Assessing Biofuels*. The report, the first by UNEP’s newly established International Panel for Sustainable Resource

Management, calls for carefully considering the pros and cons when developing biofuels as an environmentally friendly energy option, and for establishing harmonized product standards for biofuels based on internationally recognized life-cycle assessments.

In the course of the year, UNEP also became an active partner in the Global Bioenergy Partnership launched in 2005 as a G8+5 initiative. The partnership brings together over 40 governments and more than a dozen UN agencies and intergovernmental organizations that are involved in the development of sustainability criteria. As a key partner in the Roundtable for Sustainable Biofuels, UNEP organized regional outreach meetings to involve stakeholders in developing a certification scheme for biofuels at the project level.



PHOTOS:

1. Green solar panels
© Digital Art/Corbis
2. The 2009 UNEP Sasakawa Prize honoured two deserving laureates in the field of sustainable development. Sunlabob Rural Energy rents out solar lighting at a lower price than kerosene in Lao PDR. Practical Action brings hydro-electricity to thousands in the Peruvian Andes, where the majority of the population has no access to electricity.
© Sunlabob



GREEN TECHNOLOGY



PHOTOS:

1. Robot holding globe
© Fry Design Ltd/
Getty Images
2. Fluorescent Light bulb
© Thom Lang/Corbis

Access to clean technology remains the lynchpin for the global transition to a resource-efficient, green economy. In many cases, replacing old technologies with modern, sustainable alternatives can save money, improve human health, generate “green” jobs and benefit the environment all at the same time.

In 2009, UNEP focused on promoting green technologies for addressing climate change, and improving chemical and waste management in partnership with UN agencies, environmental convention secretariats, governments, NGOs and the private sector.

Through its technology needs assessments, UNEP helped over 45 developing countries analyse the barriers to the uptake of environmentally sound technologies and develop Technology Action Plans designed to overcome these.

UNEP’s OzonAction Programme is assisting more than 80 countries to prepare phase-out management plans for hydrochlorofluorocarbons (HCFC), potent human-made greenhouse gases used in refrigeration and air conditioning equipment. The plans include identifying opportunities to reap co-benefits with climate protection, for example energy efficiency gains.

Obsolete technologies can endanger human health as well as the environment. In this context, the sound management of chemicals is particularly important. Industries producing and using chemicals have an enormous impact on employment, trade and economic growth worldwide. Of particular concern is the widening gap between developed countries, developing countries, and countries with economies in transition with respect to their capacities to manage chemical-related risks.

In the area of technology support, UNEP provides assistance to governments and the private sector on awareness, prevention, preparedness and management of industrial risks and chemical accidents, working in Cambodia, China, Peru, the Philippines and Thailand.

From plastic softeners used in baby bottles to flame retardants in carpets, chemicals in products are ubiquitous. Unfortunately, the same cannot be said about information available to consumers about these potentially hazardous substances. To address this issue, the second session of the International

**“The lever is enormous. Over one third of the electricity used worldwide for lighting today could be saved. That corresponds to half the electricity consumption of China.”
— OSRAM CEO
Martin Goetzeler**

Conference on Chemicals Management (ICCM2) held in May 2009 invited UNEP to lead international efforts towards improving information flow and access throughout the full life-cycle of products.

Having facilitated the elimination of lead from fuels in virtually all countries around the world (see GREEN TRANSPORT section), UNEP has turned its attention to other common usage of this toxic metal. Together with the World Health Organization (WHO), UNEP established a global partnership to promote the phase-out of the use of lead in paint. The partnership will focus on raising awareness of risks and alternatives, guidance on identifying potential lead exposure and prevention programmes, assistance to industry to eliminate lead use, and promotion of national regulatory frameworks.

Another UNEP-WHO initiative launched in 2009 with GEF funding seeks to scale up sustainable, DDT-free alternatives for malaria control, reducing the yearly application of DDT by 80 per cent (4,000 out of 5,000 tonnes) by 2015, and eventually eliminating its use altogether by 2024.

The rapid increase in volume and type of both solid and hazardous waste as a result of economic growth, urbanization and industrialization around the world often results in environmental pollution, health hazards, greenhouse gas and toxic emissions, and loss of precious materials and resources. Through its International Environmental Technology Centre-led projects in China, India, Lesotho and Sri Lanka, UNEP demonstrated that it is possible to reuse and/or recycle 50–70 per cent of waste, thus diverting it from landfill. Available technologies and approaches for managing specific waste streams such as agricultural biomass, plastics and e-waste are widely shared online showing that waste can be a valuable resource.



A light bulb is a well-known image for a bright idea. It is also fast becoming an iconic image for green technology in the fight against climate change. Thanks to the new partnership between UNEP, the GEF and the private sector, developing countries will soon be able to leapfrog towards energy-efficient lighting markets. The GLOBAL MARKET TRANSFORMATION FOR EFFICIENT LIGHTING PROJECT aims to phase out incandescent bulbs and replace them with modern, energy saving ones known as compact fluorescent lamps (CFLs) — and cut the world’s electricity demand for lighting by an estimated 18 per cent. This will be done by harmonizing the standards of quality, efficiency and environmental impact of new light bulbs through the creation of a dialogue platform for the stakeholders and the establishment of a technical centre of excellence on lighting within UNEP’s Division of Technology, Industry and Economics. The project, scheduled to kick off in 2010, is financed by the GEF (\$5 million), while Philips and OSRAM are each contributing \$6 million in-kind.



GREEN TRANSPORT



PHOTOS:

1. Young woman waiting for bus in transit bus tunnel
© Stephen Matera/Aurora Photos/Corbis
2. Maps UNEP PCFV

Avoid—Shift—Clean. Such is the three-pronged strategy of UNEP in the area of transport, a sector which accounts for approximately one quarter of all energy-related greenhouse gas emissions.

Leaner, greener transport is a key pillar of a low-carbon economy. Through its transport programme, UNEP is promoting a paradigm shift for a less auto-intensive, but no less mobile, world. It is also focusing on cleaning up vehicles and fuels, especially in developing countries and those with economies in transition, which are grappling with air pollution and associated health problems.

AVOID

UNEP is working to demonstrate that it is possible to suppress the demand for transport, particularly private vehicles, without restricting overall mobility. For example, smarter city planning — versus suburban sprawl — reduces the need to travel long distances between residence, work and recreation.

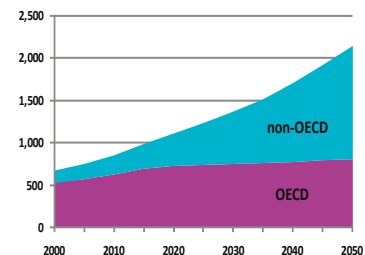
SHIFT

Shifting from private cars to public transport decreases both carbon emissions and congestion. While in many developing countries private cars are still unaffordable for the majority of the population, these countries lack high-quality public transport systems and safe options for pedestrians, bicycles and other forms of non-motorized transport. Through its new "Share the Road" initiative, UNEP is working with public and private sector partners to ensure that all investments in road infrastructure set aside approximately 10 per cent for bicycle and pedestrian lanes.

CLEAN

The global vehicle fleet is set to triple by 2050 — almost all growth will take place in developing countries (see figure below).

Predicted Growth of the Global Light Duty Vehicle Fleet (IEA, 2008)

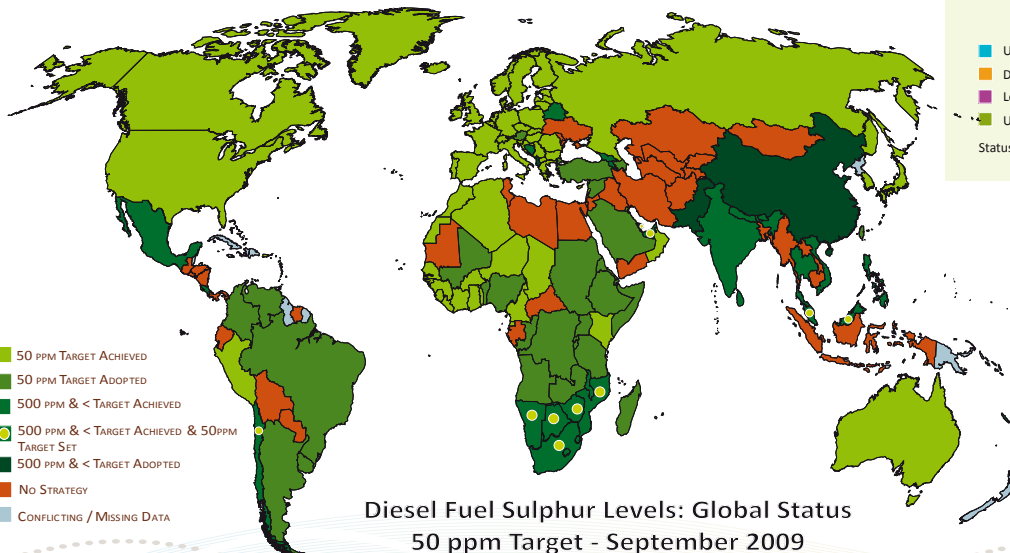


To avoid a huge increase in transport emissions, impacting air quality and further fueling climate change, UNEP together with the Fédération Internationale de l'Automobile (FIA) Foundation and the OECD-based International Transport Forum is spearheading the "50 by 50" campaign which seeks to improve the efficiency of the global vehicle fleet by at least 50 per cent by 2050.

UNEP is also hosting the UN21 Award-winning Partnership for Clean Fuels and Vehicles (PCFV). With its 120-plus members, PCFV has achieved a major success since 2002 in phasing out leaded gasoline around the world. Only 12 countries still use small amounts of leaded fuel, and all have set targets for completing the phase-out. Initial assessments indicate that several hundred thousand premature deaths each year have been prevented through this effort.

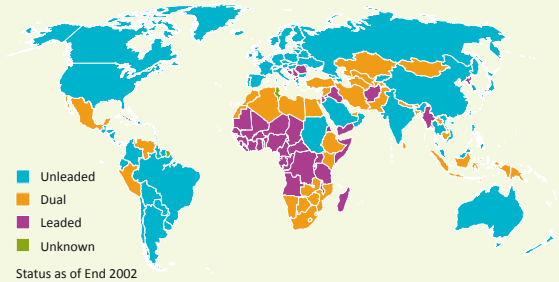
The PCFV is now focusing on a global campaign to move to low-sulphur levels worldwide. All developed countries have adopted the standard of 50 parts per million (ppm) sulphur or less, a stark contrast with up to 10,000 ppm concentrations found in fuel in some developing countries. In 2009, over 80 developing countries, more than half of them in Africa, have agreed on action plans to move to low-sulphur fuels, while several countries in Latin America and the Caribbean have set specific targets.

MOVING TOWARDS THE 50 PPM SULPHUR TARGET

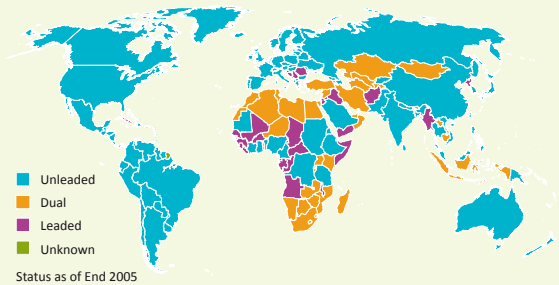


GETTING THE LEAD OUT

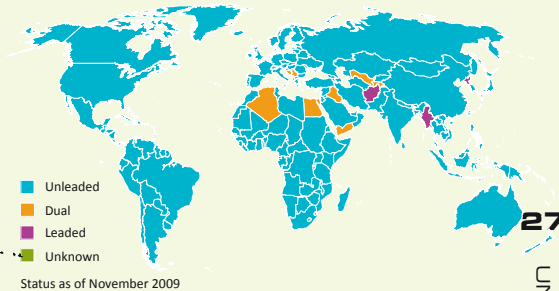
Leaded Petrol Phase-Out: Global Status 2002



Leaded Petrol Phase-Out: Global Status 2005



Leaded Petrol Phase-out: Global Status 2009



GREEN SPACES


02



NATURAL CAPITAL. The world's forests, wetlands, coral reefs and other precious ecosystems and the rich biodiversity they harbour provide trillions of dollars worth of benefits each year. They feed and clothe us, provide clean water, capture and store carbon, control floods and pollinate crops. Yet we are running down our natural capital stock without understanding the value of what we are losing.

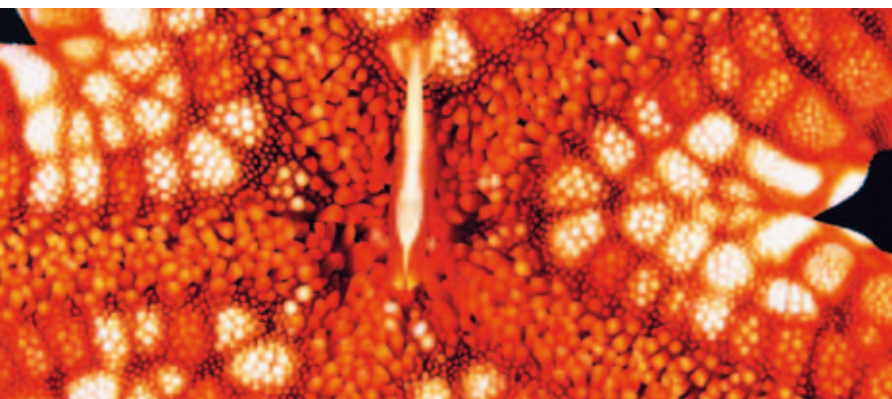
In 2009, UNEP worked to make the case to policy makers about the value of species and ecosystems, assessed climate vulnerability of cities, countries and regions, and engaged in hands-on action to restore vital ecosystems in Africa and other parts of the planet.

As the global community prepares to mark the International Year of Biodiversity in 2010, UNEP and partners advocate nature's way for achieving strong and sustainable economic growth in the twenty-first century.





THE ECONOMICS OF ECOSYSTEMS AND BIODIVERSITY



The Economics of Ecosystems and Biodiversity (TEEB) study was launched by Germany and the European Commission (EC) in response to a proposal by the G8+5 Environment Ministers during their meeting in Potsdam, Germany in 2007 to develop a global study on the economics of biodiversity loss. TEEB is an independent initiative hosted by UNEP with financial support from the EC, Germany, the Netherlands, Norway, Sweden and the United Kingdom.

The *TEEB Report for Policy Makers*, released in November, called on policy makers to accelerate, scale up and embed investments in the management and restoration of ecosystems as a means for catalysing “green” growth and achieving the Millennium Development Goals (MDGs).

Over 100 experts from science, economics and policy from across the globe have been involved in the research, analysis and writing of the report, the first of five to be published between now and the 2010 Biodiversity Summit in Nagoya, Japan, where over 190 governments will take stock of the international progress towards the goal of halting the loss of biodiversity.

One of the project deliverables will be the *TEEB for Business Report*. In late 2009, over 200 delegates convened in Jakarta, Indonesia, for the annual UNEP Business and Industry Global Dialogue on the theme of “Biodiversity and Business”. The meeting, organized with the Secretariat of the Convention on Biological Diversity and in partnership with the Government of Indonesia, called for strengthening the business case for biodiversity, and recommended ways for scaling up the business contribution to biodiversity conservation efforts.

FACTS

Investing \$45 billion in protected areas could secure vital nature-based services worth some \$5 trillion a year, including the sequestration of carbon, the protection and enhancement of water resources and protection against flooding.

— TEEB Report for Policy Makers

PHOTOS:

1. A periclimene shrimp walking on underside of starfish. © David Doubilet/Getty Images
2. Close-up of two ants © Catherine Ledner
3. Water lily and lily pads © Michael Duva/Getty Images



Coastal ecosystem services are worth an estimated \$25,000 billion annually. Together with coral reefs, they supply an estimated 50 per cent of the world's fisheries, providing nutrition to close to 3 billion people, as well as 50 per cent of animal protein and minerals to 400 million people in developing nations.
— Blue Carbon – The Role of Healthy Oceans in Binding Carbon report

“Nature’s multiple and complex values have direct economic impacts on human well-being and public and private spending. Recognizing and rewarding the value delivered to society by the natural environment must become a policy priority.”
— Pavan Sukhdev, TEEB Study Leader

TEN-POINT PLAN FOR ECOSYSTEM-SAVVY ECONOMIES

The *TEEB Report for Policy Makers* outlines a ten-point plan aimed at catalysing a transition to more ecosystem-savvy economies able to meet the multiple challenges and deliver the multiple opportunities on a planet of six billion people, rising to nine billion by 2050:

1. Invest in ecological infrastructure
2. Reward benefits through payments and markets
3. Reform environmentally harmful subsidies
4. Address losses through regulation and pricing
5. Recognize that protected areas are a cornerstone of conservation policies and provide multiple benefits
6. Halt deforestation and forest degradation
7. Protect tropical coral reefs
8. Save and restore global fisheries
9. Recognize the deep link between ecosystem degradation and the persistence of rural poverty
10. Agree on a forest carbon deal



THE COLOURS OF CARBON



PHOTOS:

1. Protestors dressed in CO₂ molecule costumes demonstrate against carbon dioxide pollution © Ina Fassbender/Reuters
2. © Luiz C. Marigo/UN-REDD

Black carbon — yes, that sounds familiar. But what about green or blue carbon? In 2009, UNEP supported the development of science and highlighted opportunities for speeding up action on climate change by turning attention to the so-called “black carbon” and other non-CO₂ gases, as well as protecting the vast stores of carbon held by the world’s ecosystems like forests and oceans — known as “green” and “blue” carbon sinks, respectively.

On the occasion of the Third World Climate Conference in September 2009, UNEP said that faster action on climate change may be possible if nations combine substantial cuts of carbon dioxide emissions alongside accelerated moves across a suite of other greenhouse gases and pollutants. UNEP also convened a science-policy consultation to broaden understanding regarding non-CO₂ emissions and develop appropriate policy responses.

Scientists estimate that nearly 50 per cent of the emissions causing global warming in the twenty-first century are from non-CO₂ pollutants ranging from black carbon entering the atmosphere from the inefficient burning of biomass and dung for cooking and from diesel engines, coal-fired power stations, low-level ozone, methane and nitrogen compounds.

According to researchers, black carbon’s likely near-term climate change contribution ranges from 20 to 50 per cent of the CO₂ warming effects. Especially damaging are the black carbon emissions that end up on snow and ice, as consequently these surfaces absorb more of the sun’s heat. UNEP’s focus in this area has been on the Arctic and Himalayan Tibetan Plateau.

On World Environment Day, UNEP made a strong case for biosequestration — carbon stored in ecosystems such as plant biomass, soils, wetlands and pasture — in its rapid assessment report *The Natural Fix? The Role of Ecosystems in Climate Mitigation* produced by UNEP–World Conservation Monitoring Centre (UNEP–WCMC).

Instead of relying on costly technologies such as carbon capture and storage, boosting investments in the conservation, rehabilitation and management of the Earth’s forests, peatlands, soils and other key ecosystems can deliver significant cuts in carbon emissions and avoid even more being released to the atmosphere. Such activities

“By associating conservation and sustainable management of forests, REDD is a winning formula for the climate.”

— Denis Sassou-Nguesso, President of the Republic of the Congo

UN-REDD
PROGRAMME

have the added benefit of preserving the huge range of services and goods these ecosystems provide to local people and the wider community, the report concluded.

Reduced Emissions from Deforestation and forest Degradation (REDD), a scheme negotiated under the auspices of the UN Framework Convention on Climate Change (UNFCCC), aims to cut the one fifth of global carbon emissions linked to deforestation while also generating financial flows from North to South.

The UN-REDD is a joint programme between the UN Food and Agriculture Organization (FAO), UNDP and UNEP which provides technical and financial assistance to nine partner countries as they begin to transform their forest sectors into the pillars of a future green economy.

During 2009 alone, the UN-REDD Programme disbursed \$24 million to help participating countries develop their REDD strategies. The strategies seek to develop measuring, reporting and verification systems, identify the multiple biodiversity and livelihoods

benefits and the primary drivers of deforestation, as well as establish reference levels for CO₂ emissions against which future mitigation performance would be measured.

REDD and REDD+, which includes not only maintaining forests but planting and recovering forest systems, secured the backing of close to 15 Heads of State and Government at a special meeting hosted in September by UN Secretary-General Ban Ki-moon.

A similar Blue Carbon Initiative targeting marine ecosystems like mangroves, salt marshes and seagrasses has been launched by UNEP, FAO and the Intergovernmental Oceanographic Commission of the UN Educational Scientific and Cultural Organization (UNESCO) in October.

Of all the biological carbon captured in the world, over half (55 per cent) is captured by marine organisms. Each year, blue carbon sinks are absorbing an equivalent of half the world's transport emissions, but are being lost at an accelerated rate. The oceans, which have absorbed much of the historic carbon emissions, are reaching the point of saturation.

Combined with action under REDD, halting the degradation of and restoring lost marine ecosystems might deliver up to 25 per cent of emission reductions needed to keep global warming below 2 degrees Celsius, noted the UNEP report *Blue Carbon — The Role of Healthy Oceans in Binding Carbon*.

UNEP's message is clear. If the world is to decisively deal with climate change, every source of emissions and every option for reducing these should be scientifically evaluated and brought to the international community's attention — that should include all the colours of carbon.





ECOSYSTEMS UNDER THREAT — UNEP RESPONDS

Across the globe, ecosystems are being lost at an alarming rate. But thanks to the efforts of many organizations working on the ground, including UNEP, there are signs of hope for some of these life-support systems.

Through its atlases illustrating environmental hotspots around the world, targeted interventions to restore key ecosystems and make recovery efforts following conflicts and disasters environmentally sustainable, and hands-on tree-planting campaigns, UNEP has demonstrated how ecosystem management can make a positive contribution to human well-being, poverty alleviation, and even peace-building efforts.

However, up-front investments in maintenance and conservation are almost always cheaper than trying to restore damaged ecosystems. Moreover, the social benefits that flow from restoration can be several times higher than the costs.



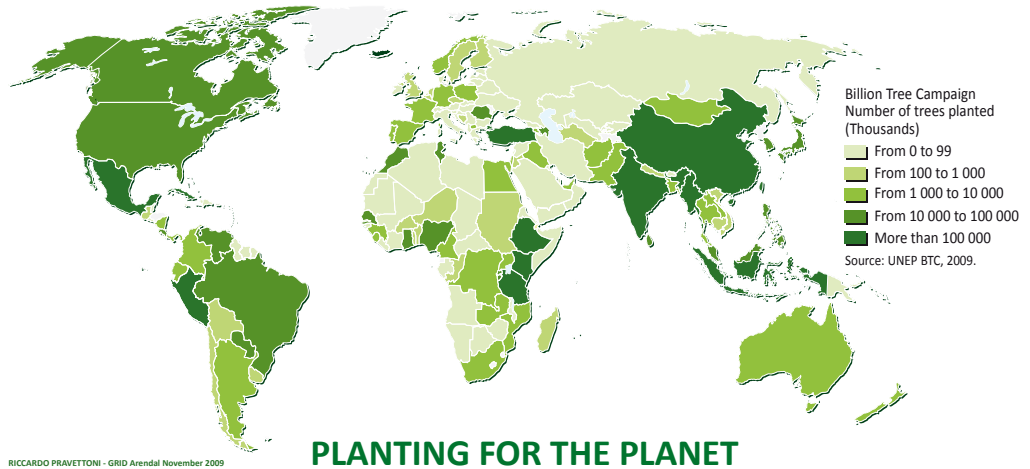


“The Billion Tree Campaign has empowered students, families, communities, associations, and decision makers to leave a ‘green legacy’, providing a tangible and simple solution to the loss of biodiversity, soil erosion and global warming.”

**— Meryem Amar,
Billion Tree
Campaign
Coordinator**

PHOTOS:

1. Five lupines on sand dune © Fred Hirschmann/Science Faction/Corbis
2. Peruvian family on its way to plant trees © Yachai Wasi
3. Map © GRID-Arendal



RICCARDO PRAVETTONI - GRID-Arendal November 2009

Launched in November 2006, Plant for the Planet: the Billion Tree Campaign doubled its original target in just six months. As a result of its success, UNEP raised the campaign’s objective to 7 billion trees — 1 tree for each person on the planet — in the run-up to the Copenhagen climate conference. Once again, the campaign surpassed its target with the website registering over 7.4 billion planted trees by the end of 2009.

Proving true its motto that “every tree counts, and we count every tree”, the Billion Tree Campaign’s success is a result of the participation of people from all walks of life and from every corner of the planet, with more than half of the participants being private individuals, planting seedlings in their garden. From Brazilian top model and UNEP Goodwill Ambassador Gisele Bündchen to the father-son team, Charles and Sho Scott, who carried out a 4,700-kilometre bike ride across Japan, the campaign inspired people around the world to roll up their sleeves and plant.

The campaign enlisted support from sports organizations, community and youth groups, schools, corporations, NGOs, UN agencies and local and national governments. UN agencies that have supported the campaign include the World Food Programme (WFP),

the UN High Commissioner for Refugees and the United Nations Children’s Fund (UNICEF).

Capitalizing on the preparations for upcoming sport events, tree planting campaigns were held in South Africa and Russia. From Banda Aceh to New Orleans, communities planted trees as part of recovery efforts in the aftermath of natural disasters. The campaign has brought seeds of hope to communities in Afghanistan, Bosnia-Herzegovina, Iraq, Liberia and Somalia.

The private sector — from multinationals to hundreds of small and medium-sized companies — has become a key player in the campaign, accounting for almost 15 per cent of all the trees planted. The World Organization of Scout Movement planted trees in 10 countries, joining dozens of other youth organizations.

In total, 170 countries participated in the Billion Tree Campaign. Governments that have joined the campaign include India, China, Ethiopia, Turkey, Mexico, Indonesia, Morocco, Cuba and Peru, to mention but a few. The billions of trees planted by the participants will contribute to combating climate change and conserving biodiversity on our planet.



PHOTOS

1. A lake in Mali.
© Aldo Pavan/Corbis
2. The year 2009 saw unprecedented public awareness campaigns about the many benefits of the Mau Forest ecosystem located in Kenya's scenic Rift Valley and the dangers of losing them.
© Nation Media
3. The 2009 Year of the Gorilla campaign led by the UNEP-administered Convention on the Conservation of Migratory Species of Wild Animals further raised awareness of the plight of these 'gentle giants' in eight African range states.
© Michael Nichols/Getty Images

RESTORING A LIFELINE – LAKE FAGUIBINE, MALI

When Mali's Lake Faguibine dried up in the mid-1990s, there were far-reaching implications for the livelihoods of more than 200,000 people living in its hinterland. These local communities were forced to abandon their traditional livelihoods, which revolved around agriculture, livestock, forestry and fisheries. In a region plagued by armed conflicts and humanitarian crises and particularly vulnerable to climate change, losing the Lake was like losing a lifeline.

In its 2008 publication *Africa — Atlas of Our Changing Environment*, UNEP put the spotlight on the sharp and rapid decline in the size of Lake Faguibine over a 30-year period and the dire prospects for the Lake and the people who depend on it. In response to the Atlas' findings, the Government of Mali invited UNEP and partners to work together to restore Lake Faguibine and its valuable services — revamping fishery, sustainable agriculture and ecotourism. The project commenced in 2009 with support from the Government of Norway. It involves opening up water channels through which flood waters from the Niger River reach the Lake. As both water and people return to Lake Faguibine, the project is also looking at raising awareness about HIV/AIDS and malaria prevention, with particular emphasis on empowering women.

AFRICA

“Our sights are set high on rehabilitating the Mau Forest Complex to function and provide its ecosystem services to this nation and the Eastern Africa region.”
— Kenya Prime Minister Raila Odinga

SECURING KENYA'S ECONOMIC POWERHOUSE – MAU FOREST COMPLEX

The Mau Forest Complex, seven times the size of the capital Nairobi, is an irreplaceable anchor of Kenya's natural resources. The market value of goods and services generated annually in important sectors such as tea, tourism and energy alone — to which the Mau forest has contributed — is estimated at over \$270 million. The Mau Complex is the single most important source of water for direct human consumption in the Rift Valley and western Kenya. UNEP has been involved in the Mau forest since 2005, when it conducted a comprehensive status report of the Maasai Mau Forest (one of the major forest blocks) together with local partners.

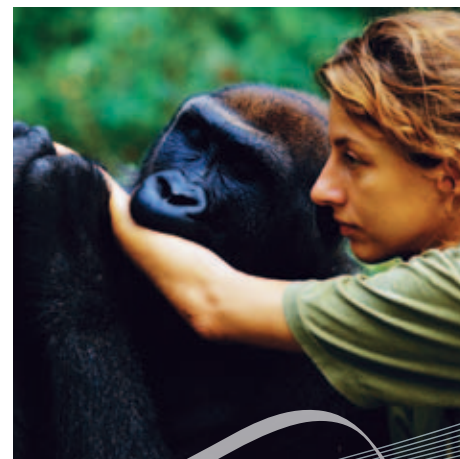
The 2009 publication *Kenya: Atlas of Our Changing Environment* produced by UNEP in collaboration with the Government of Kenya revealed the grave extent of the forest's depletion — over 25 per cent of forest cover has been lost over the past two decades to ecosystem encroachments like unplanned settlements and illegal logging. Acting on these findings, UNEP and the Government of Kenya are working to restore this vital ecosystem based on the ten-point plan prepared by the Mau Forest Task Force involving major stakeholders.



RESUSCITATING AFRICA'S LUNGS – CONGO BASIN FOREST PROJECT

The Democratic Republic of the Congo (DRC), which hosts 54 per cent of the Congo Basin forest, is one of the nine pilot countries in the UN-REDD Programme. At 2 million square kilometres (km²), the Congo Basin forest is the second-largest forest in the world after the Amazon forest. But the forest is losing 1.5 million hectares each year — equivalent to half of Lesotho — through illegal logging and settlements, shifting agriculture, growing populations and oil and mining industries expansion. In anticipation of the adoption of REDD as part of the international climate regime, the country is preparing a national strategy for managing its forest cover and carbon stocks.

In 2009, UNEP further deepened its engagement in the country by initiating a post-conflict environmental assessment, set within its wider environmental recovery programme, and opening a project office in Kinshasa. UNEP is also working with partners to establish a transboundary protected area shared by DRC, Republic of the Congo and Angola in the south-western part of the Congo Basin. Through the Great Apes Survival Partnership (GRASP), UNEP is helping to halt encroachment into DRC's Virunga National Park — home to half of the last remaining mountain gorillas in the wild.





ASIA AND THE PACIFIC



CARING FOR KARAKORUM

For sheer mountain grandeur and breath-taking panoramas, few places in the world can match the Karakorum (also spelled as Karakoram) Mountains of northern Pakistan. In recognition of their exceptional natural value, the Government of Pakistan established the Central Karakorum National Park in 1993. With K2 (8611 m) the second highest peak in the world as its centerpiece, this 10,000 km² national park encompasses some of the world's most famous mountains and largest glaciers.

Like the rest of the Himalayas, the Karakorum region is at the forefront of climate change impacts. The Karakorum Trust Project, launched by UNEP and partners with funding from the Government of Italy in January 2009, seeks to help local communities — some 100,000 people living in villages adjacent to the park — to adapt to climate change, and conserve the Karakorum ecosystem upon which their quality of life depends.

Even hardy mountain populations, adapted for centuries to survival in extreme environments, are finding it increasingly hard to cope with climate change impacts, including severe floods and droughts, that are challenging food security, housing, infrastructure, business and even survival. A new study by UNEP, the International Centre for Integrated Mountain Development (ICIMOD), and the Center for International Climate and Environmental Research (CICERO) drew attention to the realities facing mountain populations in the Hindu Kush-Himalayan region and hundreds of millions of people downstream.

PHOTOS:

1. The Karakorum Trust Project. © UNEP
2. Siberian cranes. © Yu Youzhong
3. Local NGO worker busy moving mangrove propagules for creation of mangrove protection belt, Moro Sari, Semarang, Indonesia. Photo courtesy of Mangroves for the Future Initiative

SAFER FLYWAYS FOR SIBERIAN CRANES

Siberian cranes are legendary birds in Asia — a revered symbol of morality and good fortune — that travel up to 5,000 kilometres on their annual migration from the Arctic shores in northern Siberia to the Yangtze River Basin in China. Little was known about these white cranes until very recently, when some 3,500 birds — 95 per cent of their total population — were discovered to winter in one single location — the Poyang Lake Basin in China's northern Jiangxi Province. Wetlands are crucial stopover sites for Siberian cranes and are under growing pressure from development projects. The Siberian Crane Wetland Project, which began in 2003 with funding from the GEF and implemented through UNEP, focused on the chain of wetlands along the major flyways in Russia, China, Iran and Kazakhstan.

Six years on, the project successfully directed conservation efforts to these threatened wetland ecosystems, benefiting hundreds of plant and animal species as well as human communities that depend on wetlands for water and natural resources. Kazakhstan has expanded and strengthened its protected areas and conducted a nation-wide educational programme. Russia has created a new protected area system around the Kunovat River and removed oil wells from existing nature reserves. China has taken steps to secure long-term water supply to key wetlands, including payment for the release of the so-called “environmental flows” in the Momoge Reserve. Several project sites were designated as Wetlands of International Importance by the Ramsar Convention.

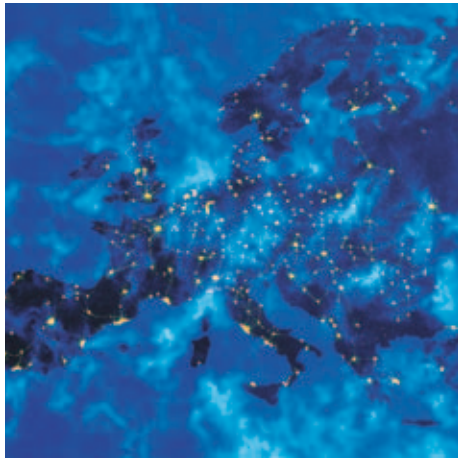


CLIMATE-PROOFING INDIAN OCEAN COASTS

Asia is one of the world's hotspots for natural hazards and climate vulnerability. In just the second half of 2009, the region was hit by four major disasters: typhoons Ketsana and Parma, the Samoa tsunami and the Java earthquake — causing more than 1,200 deaths, affecting around 4 million people and leaving widespread destruction in their wake. When coupled with effective early warning systems and preparedness plans, healthy ecosystems can be vital defences against natural hazards and key allies in coping with climate change.

As part of the Mangroves for the Future Initiative, a multi-agency, multi-country coastal ecosystem initiative, UNEP supported six Indian Ocean countries in better preparing themselves for the impacts of climate change and improving livelihoods and environmental quality in coastal areas. As part of ongoing support to the UN International Strategy for Disaster Reduction, UNEP and partners carried out a capacity-building project for disaster risk reduction specifically targeting coastal zone managers. National training modules were developed and delivered in Sri Lanka, Indonesia and India, and eight countries benefited from a regional training module. The project also aimed at promoting South-South cooperation and increasing collaboration between coastal managers and disaster risk reduction practitioners in the region.





EUROPE

ENVIRONMENTAL CHANGE IN EUROPE — AS SEEN FROM SPACE

The rapidly changing environment of parts of Europe is chronicled in a new atlas released by UNEP and the European Environment Agency in 2009. *The Environmental Atlas of Europe* describes in detail each of the 15 sites analysed across the continent and depicted via “before-and-after” satellite imagery. From the drying out of agricultural fields through wind erosion in Georgia, to the opening up of ice-free winter passages in the Baltic Sea, to the piloting of floating cities in the Netherlands, the Atlas shows the impacts of global warming across the European continent and emphasizes the importance of local action to combat climate change.

PHOTOS:

1. Europe's city lights from space. © Chris Alan Wilton/ Getty Images
2. An Albanian girl holds a plastic bucket filled with chrome ore as she comes down a mountain in the mining town of Bulqize. © Arben Celi/ Reuters
3. The Pienny, Carpathian Mountains, Poland. © Walter Bibikow/Corbis
4. Iranian fishermen. © Getty Images



CLEANING UP ALBANIA'S MINING SITES

Active and abandoned mining sites are among the chief environmental concerns across the western Balkans. In 2009, UNEP developed tailor-made solutions to address environmental, health and security concerns and risks for three mining sites in Albania, based on earlier missions to the Fushe-Arrez, Reps and Reshen sites. Work to address these threats will start in earnest over the next years in cooperation with UNDP and other partners under the Environment and Security (ENVSEC) Initiative. The activity is part of a larger project funded by the Austrian Development Agency and the Canadian International Development Agency to improve regional cooperation for risk management for pollution hotspots as well as management of shared natural resources.

PROTECTING THE GREEN HEART OF EUROPE

The Carpathian Mountains — sometimes referred to as the “green heart of Europe” — are a jewel of biodiversity and an eco-region of global importance. Shared by the Czech Republic, Hungary, Poland, Romania, Serbia, the Slovak Republic, and Ukraine, the Carpathians provide livelihoods for millions of people but, like other European mountain regions, are facing multiple challenges ranging from climate change to development pressures. Since 2004, UNEP has provided the interim Secretariat of the Carpathian Convention, hosted by the Government of Austria in Vienna, and provides broad programmatic support through several European Union projects. The Convention promotes clean technologies, renewable energy, as well as sustainable water, transport, agriculture and forest management as tools for sustainable regional development. The seven countries which are Parties to the Convention are taking effective steps to secure ecological connectivity in the Carpathians, with the latest Alpine-Carpathian ecological corridor — developed in partnership with the Convention on Biological Diversity and the Alpine Convention — securing the ecological connection between the two largest mountain ranges of Europe. In 2009, the Biodiversity Protocol was signed and ratifications have started to come in.



RESTORING DEPLETED FISHERIES IN THE CASPIAN SEA

The Caspian Sea is the largest enclosed body of water on Earth, which is home to 400 unique species — notably the Caspian sturgeon prized worldwide for its caviar. In recent years, however, the Caspian region has witnessed a dramatic decline in fish stocks due to over-fishing, extensive poaching, dam construction, increased pollution, and introduction of invasive species. UNEP administers the interim Secretariat to the Tehran Convention, the first legally binding agreement signed by all five nations surrounding the Caspian Sea, laying down the general requirements and the institutional mechanism for environmental protection in the region. In 2009, the CASPECO project, which seeks to restore depleted fisheries and strengthen regional environmental governance, was approved by the GEF and countries concerned. The major focus will be on assisting countries to agree on political commitments to ecosystem-based joint action on sustainable fisheries and bio-resources and introduce institutions and reforms to catalyse the implementation of policies that prevent over-fishing and benefit communities.





LATIN AMERICA AND THE CARIBBEAN



THE HAITI REGENERATION INITIATIVE*

Haiti's poverty, instability and environmental degradation are tightly interlinked problems. With less than 2 per cent of the original forest cover remaining, the country struggles to adequately feed the population, is increasingly vulnerable to landslides and flooding, and is missing out on many economic opportunities like tourism which are an important source of income for many of its neighbours. The environmental challenges facing the country are well recognized at all levels — domestically, from the highest political spheres to individual farmers, as well as internationally, as illustrated by the appointment of former US President Bill Clinton as UN Special Envoy to Haiti. In a bid to reverse the tide of environmental degradation and lift the country out of poverty, UNEP, other UN agencies, governmental entities, NGOs and technical institutes, working under the UN Development Assistance Framework, are developing the Haiti Regeneration Initiative, which is to be formally launched in 2010.

The initiative will start small but is designed for the national scale and the long term, with a 20-year lifespan and an estimated \$3 billion turnover, with a strong emphasis on improving aid effectiveness. It draws together multiple assistance programmes under a new model — linking practical action at the local level with national-scale thematic programmes including reforestation, marine environment and renewable energy. The initiative is expected to become a core part of the Haitian Government strategy for long-term recovery and development, and will be implemented by a coalition of over 50 partners. As the lead agency for the design and development phases, UNEP will bring together experiences gained in disaster recovery projects, poverty and environment work, and the Green Economy Initiative. UNEP will also manage marine and environmental awareness programmes from its programme office in Port-au-Prince. At the sub-regional level, Haiti has signed an agreement with Cuba and the Dominican Republic to develop a Caribbean Biological Corridor with the assistance of UNEP and the WFP. As part of this effort, UNEP commenced an EC-funded project which will focus on mapping out the network of terrestrial and marine protected areas that would form the Corridor, creating sustainable livelihoods and building capacity for implementation by participating countries.

** As this report is going to print, UNEP mourns the tragic loss of life in the earthquake that struck Haiti in January 2010. Together with the Government of Haiti, the UN family and other partners, UNEP has been an integral part of the immediate relief phase, as well as the early recovery phase. UNEP will continue to be part of UN Country Team's efforts to assist the people of Haiti on environmental matters and further develop the Haiti Regeneration Initiative.*

PHOTOS:

1. A woman standing in a sterile widened riverbed near Jacmel, Haiti after the 2008 hurricanes. © UNEP
2. Aymara indian mother and daughter, Bolivia, Illimani mountain. © Frans Lemmens/ Getty Images

COMMON VISION FOR AMAZONIA

Amazonia — the vast region shared by eight Latin American countries — is the planet's largest forest ecosystem. The Amazonian ecosystem is being rapidly transformed by land use changes like conversion to agriculture, expanding roads and growing human settlements, with climate change putting an added pressure. For the first time, some 150 experts, researchers and other stakeholders from the eight Amazonian

countries participated in an integrated environmental assessment known as Global Environmental Outlook (GEO) with support from UNEP and the Amazon Cooperation Treaty Organization. The report, *Environment Outlook in Amazonia: GEO Amazonia*, found that around 17 per cent of the original vegetation has been lost to date, while the population increased to 33.5 million, water quality deteriorated and a large part of the Amazonian forest may turn into a savannah before the end of the twenty-first century. The report has strengthened a common vision for the Amazonia among the concerned countries, contributed to an ecosystem approach for managing its valuable resources, and provided sound science and policy advice for environmental governance. In response to the report's findings, the governments of Amazonian countries have indicated concrete actions underway to deal with their environmental challenges.



HIGH HOPES FOR PARAMO ANDINO

Paramo Andino — a high-altitude ecosystem covering 35,000 km² of the Andean mountains shared by Colombia, Ecuador, Peru and Venezuela — benefits about 40 million people, including providing water for large cities like Quito and Bogota, and supporting important industries like agriculture and mining. Paramo's unique biodiversity, often found in "islands" towards the summits, is particularly vulnerable to temperature increases as a result of climate change. As an implementing agency for the Global Environment Facility, UNEP is supporting the Paramo Andino project carried out by the Consortium for Sustainable Development of the Andean Eco-region (CONDESAN). In 2009, the project made progress in developing community-led participatory management plans and information exchange, culminating in the launch of the Paramo Information Mechanism. Payment for ecosystem services schemes are also envisaged as a way to provide sustainable livelihoods and conserve biodiversity. Following a workshop on mining in *paramos*, countries are now considering legal restrictions. For example, the new mining law in Colombia recognizes *paramo* as a fragile ecosystem that requires special treatment and where conservation of ecosystem services is a priority.





NORTH AMERICA



VANCOUVER AND BEYOND — GREENING OLYMPICS

From 12-28 February 2010, the city of Vancouver and the nearby resort town of Whistler in British Columbia, Canada will host the XXI Olympic Winter Games. UNEP and the Vancouver 2010 Olympic Games Organizing Committee have been working together since 2007 on enhancing the environmental performance of the event, building on UNEP's ongoing engagement with the International Olympic Committee. In 2009, UNEP also released the final environmental assessment of the 2008 Beijing Olympic Games, which highlighted achievements such as big investments in public transport and renewable energies, and some shortcomings, for instance in the area of carbon neutrality. The Green Olympics "relay" will continue at the forthcoming games in London in 2012, and the 2014 Winter Olympics to be hosted by Sochi, Russia — with both events already cooperating with UNEP on "greening" aspects.

PHOTOS:

1. The Olympic flame burns in front of the National Assembly in Quebec City. © Mathieu Belanger/Reuters
2. ARRI Kentucky tree planting. © UNEP
3. The topsoil of a corn field is washed away near Cambridge, Iowa, United States. © Kevin Sanders/ Reuters
4. Boulders and limestone concretions rest in the shallow waters of Lake Huron at Kettle Point, Ontario, Canada. © Fred Hirschmann/Science Faction/Corbis

TACKLING GLOBAL NUTRIENT RUN-OFF PROBLEM

Nutrient run-off from upstream farms has caused a persistent "dead zone" in the Gulf of Mexico, where the Mississippi runs into this body of water. The dead zone is caused by an overgrowth of algae that feeds on the nutrients and takes up most of the oxygen in the water. To address the growing problem of nutrient over-enrichment worldwide, UNEP, in collaboration with the Governments of the United States and the Netherlands, launched the Global Partnership on Nutrient Management (GPNM), which brings together scientists, policy makers, the private sector, NGOs and international organizations. The GPNM, which held its first meeting in October, in The Hague, will provide a web-based platform, presenting information on major emission sources and impacts, environmental costs of over-enrichment, and analysis of impacts in coastal areas and large marine ecosystems. A key focus will be on facilitating implementation between and within countries, providing knowledge and tools to make informed on-the-ground interventions and sharing lessons learned with all partners. The GPNM will be a key initiative to help implement the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), a non-binding multilateral environmental agreement addressing the links between watersheds and coastal systems using an ecosystem management approach.

GREEN FOREST WORKS FOR APPALACHIA

The Appalachian Regional Restoration Initiative (ARRI) is a capacity-building effort between UNEP, the US Department of Interior's Office of Surface Mining Reclamation and Enforcement, and the San Francisco-based Baum Foundation. ARRI made a pledge to plant 38 million trees over three years as part of UNEP's Billion Tree Campaign. In support of this partnership, UNEP staff visited Kentucky in March 2009 to help volunteers plant trees on an abandoned mine site — an event which led to the creation of a green jobs tree planting proposal to stimulate the economy of Appalachia and reap the ecological benefits of a region-wide reforestation effort. This new commitment has grown into the Green Forest Works for Appalachia programme, whereby 125 million trees will be planted over the next five years, resulting in the creation of more than 2,000 green jobs and restoring forests on approximately 70,820 hectares of barren mine lands across Alabama, Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. The ARRI Science team met with the Executive Director of the Presidential Climate Action Project and wrote a report for the President of the United States that contains recommendations on how the ARRI programme can enhance prosperity and protect the environment in Appalachia.



CANADA INVESTS IN UNEP'S WATER SCIENCE PROGRAMME

Based in Ottawa, Canada, the country with the third-largest renewable fresh-water supply in the world, the UNEP Global Environment Monitoring System (GEMS/Water) is an international science programme aimed at understanding inland water quality issues around the world. In 2009, UNEP secured funding of \$2.5 million for five years from Environment Canada to ensure the continuation of the GEMS/Water operations, which include assessments of freshwater lakes and rivers, maintenance of a global water quality database and management of an international network of over 100 participating countries, in support of global environmental assessments, water resource management, and economic and environmental decision making.





WEST ASIA



ENVIRONMENT OUTLOOK FOR THE ARAB REGION

Prepared by over 50 experts, the *Environment Outlook for the Arab Region* report, to be launched in early 2010, responds to the increasing demand for timely, accurate and consistent environmental information and scientific knowledge needed to address the mounting human pressure on the environment. The production of the report engaged 22 governments from West Asia and Africa. The *Environment Outlook for the Arab Region* provides a comprehensive assessment of environmental conditions, trends and policy initiatives over the past 35 years, and their implications for human well-being and development. It also includes an analysis of scenarios and projections to best assist decision makers in developing policy responses.



PROMOTING PUBLIC PARTICIPATION IN ENVIRONMENTAL IMPACT ASSESSMENTS

Public participation is often absent from the Environmental Impact Assessment processes in West Asia. In 2009, UNEP trained over 250 experts from environmental agencies, the private sector and civil society from nine countries and brought the issue to the attention of the Council of Arab Ministers Responsible for the Environment at its session held in Cairo, Egypt, in November.

POST-CONFLICT ENVIRONMENTAL ASSESSMENT OF THE GAZA STRIP

Following the escalation of hostilities in the Gaza Strip between December 2008 and January 2009, UNEP was requested by its Governing Council (Decision 25/12) to conduct a post-conflict environmental assessment to examine the environmental impacts of hostilities on the Gaza Strip, and undertake an economic evaluation of the cost of environmental rehabilitation and restoration. Following a comprehensive field mission by a team of eight international experts in May 2009, UNEP published its findings and recommendations in the report *Environmental Assessment of the Gaza Strip*, which was launched in Nairobi and simultaneously presented to national governmental counterparts in Ramallah and Jerusalem in September. UNEP's assessment found that the Gaza Strip's underground water system was in serious danger of collapse, with recent conflict compounding years of overuse and contamination. In addition, toxic levels were found to be very high, due to pollution from sewage and agricultural run-off. Follow-up work on supporting environmental recovery in the region is currently being considered.



PHOTOS:

1. Coastal landfills, which cause coastal degradation, are an increasing practice in several countries in the Arab region. © Abdel-Rehim Arjan
2. Awareness raising workshop in the West Asia region. © UNEP
3. Gaza Strip. © UNEP
4. A Marsh Arab guides his boat through a marsh area that is slowly being re-flooded with water. © Mario Tama/Getty Images

BRINGING IRAQI MARSHLANDS BACK TO LIFE

The Mesopotamian Marshlands constitute the largest wetland ecosystem in the Middle East, which has been almost destroyed by dam construction and drainage operations by the former Iraqi regime. Responding to the Iraqi priorities, UNEP has supported environmental management of the Iraqi Marshlands since 2004, including facilitating strategy formulation, monitoring marsh conditions, raising the capacity of Iraqi decision makers, and providing water, sanitation and wetland management options. Five years on, the marshlands are recovering and water cover is back to almost 60 per cent of pre-1970s levels. UNEP's engagement brought in other dividends such as Iraq's accession to numerous environmental conventions. As a follow-up to the post-conflict marshland management initiative, UNEP and UNESCO launched, in 2009, a new three-year project to develop a natural and cultural management strategy for Iraqi Marshlands based on the World Heritage Convention inscription requirements.





GREEN CITIES

PHOTOS:

1. The Huangpu River and the skyline of Shanghai.
© Imagemore Co., Ltd./ Corbis
2. Thailand, Bangkok, floating market. © Steve Allen/ Getty Images
3. Inmates in Shimo La Tewa prison at a fish pond which uses recycled water.
© UNEP
4. Child in São Paulo favela.
© UNEP

In collaboration with partners such as UN-Habitat, Cities Alliance and ICLEI – Local Governments for Sustainability, UNEP is working on making cities more liveable, better prepared for the multiple environmental challenges they are facing, as well as giving them a stronger voice in the international climate negotiations.

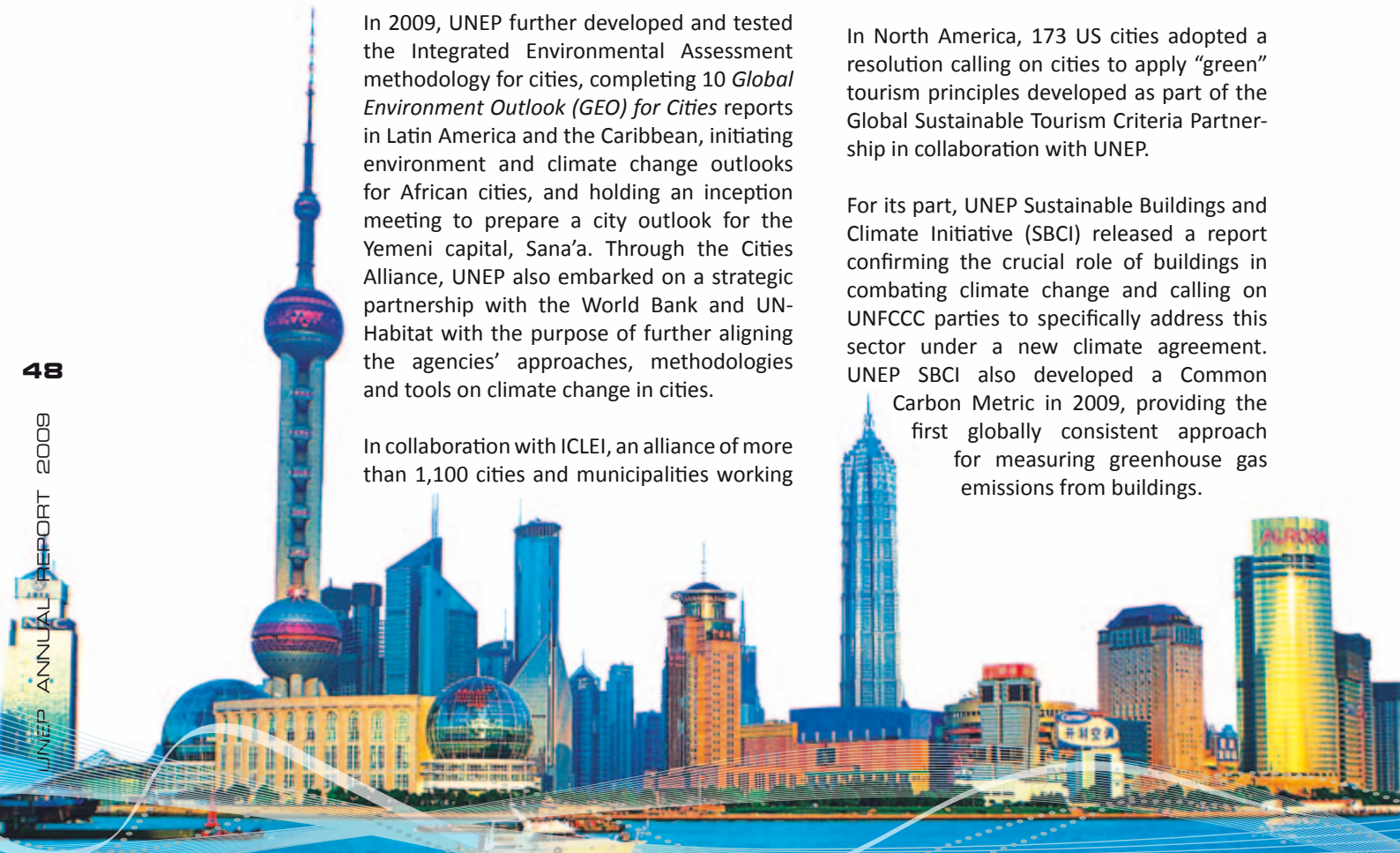
towards sustainability, UNEP launched “carbonn” — a Bonn-based centre for local climate action and reporting. The centre will help cities track progress and report on achievements towards carbon neutrality, provide a platform for cities to exchange experiences and will contribute to further development of the UNEP Climate Neutral Network, which counts 15 cities among its members.

In 2009, UNEP further developed and tested the Integrated Environmental Assessment methodology for cities, completing 10 *Global Environment Outlook (GEO) for Cities* reports in Latin America and the Caribbean, initiating environment and climate change outlooks for African cities, and holding an inception meeting to prepare a city outlook for the Yemeni capital, Sana’a. Through the Cities Alliance, UNEP also embarked on a strategic partnership with the World Bank and UN-Habitat with the purpose of further aligning the agencies’ approaches, methodologies and tools on climate change in cities.

In North America, 173 US cities adopted a resolution calling on cities to apply “green” tourism principles developed as part of the Global Sustainable Tourism Criteria Partnership in collaboration with UNEP.

For its part, UNEP Sustainable Buildings and Climate Initiative (SBCI) released a report confirming the crucial role of buildings in combating climate change and calling on UNFCCC parties to specifically address this sector under a new climate agreement. UNEP SBCI also developed a Common Carbon Metric in 2009, providing the first globally consistent approach for measuring greenhouse gas emissions from buildings.

In collaboration with ICLEI, an alliance of more than 1,100 cities and municipalities working



BANGKOK, THAILAND — Greater Bangkok is home to more than 10 million people and growing rapidly. Climate change will further exacerbate existing strains on the environment. At just 2 metres above sea level, almost three quarters of the city will be flooded should the sea levels rise by 1 metre; and Bangkok will also experience more days with temperatures above 35° C. The *Bangkok Assessment Report on Climate Change 2009*, produced by the Bangkok Metropolitan Administration and partners with support from UNEP, sets out options for climate-proofing the city, ranging from early warning systems for extreme weather events to stricter building codes to minimize damage from sea level rise. This goes hand-in-hand with the plans of the city administration to cut Bangkok's carbon emissions — roughly the same as those of London — by 15 per cent below levels projected for 2012 by investing in mass transit systems, renewable energy and greening the city.

SÃO PAULO, BRAZIL — Poorly planned urban growth often results in worsening environmental conditions for millions of city dwellers across the developing world. Hotter temperatures linked to climate change also lead to greater spread of disease. The first *Health Assessment of São Paulo*, conducted by UNEP using GEO methodology and involving more than 5,000 community health and social protection agents, identified major environmental problems that mostly affected the health of the residents of Brazil's largest city, and provided decision makers with clear priorities for action.



SHANGHAI, CHINA — With the theme “Better City, Better Life”, the 2010 World Expo in Shanghai is expected to attract some 70 million visitors. The six-month long Expo is aiming to leave a green legacy for the city and contribute to worldwide initiatives on making cities more sustainable. In 2009, UNEP conducted an assessment of Shanghai's environmental initiatives in its preparations for the Expo 2010. The report covers the general greening efforts of the city since 2000, as well as those specifically designed for the Expo. It documents measures and achievements in the areas of air quality, transport, energy, solid waste, water, green coverage, protected areas, climate neutrality, the Expo Site and public participation, and puts forward recommendations for improvement.

MOMBASA, KENYA — Thanks to a human-made wetland which treats and recycles wastewater, inmates in Shimo La Tewa Prison in Mombasa, benefited from a better diet of vegetables and fish. The initiative is part of the Addressing Land-based Activities in the Western Indian Ocean (WioLAB) project implemented by UNEP-administered Nairobi Convention Secretariat. Sewage pollution of coastal waters causes an estimated 250 million cases of gastroenteritis worldwide, and results in an economic loss of \$16 billion annually. Through the wastewater management programme of the GPA, UNEP has helped train over 750 municipal managers from 18 developing countries on devising ways to improve water quality and sanitation in their cities, and protect freshwater and coastal resources from untreated wastewater.

GREEN POLICY



POLICIES FOR THE PLANET. In 2009, UNEP focused on shifting policy towards environmental sustainability and the green economy. It used science, policy and advocacy to move the agenda forward in the areas of climate change, biodiversity and ecosystems, and hazardous substances.

Within the United Nations system, UNEP continues to serve as the voice of the environment, hosting the Secretariat of the Environment Management Group, contributing to the UN “Delivering as One” on environmental sustainability and underscoring the links between environment and security. It also spearheaded efforts towards “greening” the UN system as a whole. As its 40th anniversary draws nearer, UNEP is assisting governments in their renewed efforts towards achieving greater coherence in international environmental governance.



INTERNATIONAL ENVIRONMENTAL GOVERNANCE – AN IMPERATIVE

With more than 500 multilateral environmental agreements in existence, dozens of agencies handling environmental portfolios and limited and dispersed funding sources, responding to growing environmental challenges at both national and global levels can be an uphill struggle.

FACT

From 1992 to 2007 the parties of 18 major Multilateral Environmental Agreements were called for 540 meetings at which 5,084 decisions were taken.

Tasked to set the normative agenda on the environment within the UN system, efforts to improve the current international environmental governance (IEG) system are at the heart of UNEP's work. In fact, a functioning IEG system that provides the international framework to support governments in successfully addressing environmental challenges and meeting their commitments at the national level is, in many cases, a precondition for UNEP to carry out other activities effectively.

The longstanding debate on how to reform international environmental governance has gained significant momentum over the last 12 months through processes put into place by the UNEP Governing Council, statements made by Heads of State, as well as through initiatives taken by intergovernmental bodies such as the Commonwealth, and by civil society such as the Global Environmental Governance Project.

In pursuance of the recommendations of the co-chairs of the informal consultations of the UN General Assembly on the institutional framework for the United Nations environment work, the UNEP Governing Council established a Consultative Group of Ministers or High-level Representatives in February 2009 and tasked it to “present a set of options for improving IEG” to the eleventh special session of the Governing Council (GCSS.XI/GMEF).



After a series of meetings in Belgrade and Rome, the Consultative Group, co-chaired by Kenya's Environment Minister John Njoroge Michuki and his Italian counterpart Minister for Environment, Land and Sea, Stefania Prestigiacomo, identified a set of incremental changes to the current IEG system alongside broader institutional reform which could be considered.

Based on the premise that form follows function, the Group identified the possible core objectives and underlying functions of the system. This identification represents a critical step towards defining a pathway for improving IEG, and was a first. It also shows a growing recognition that only when there is a clear analysis of what is needed of the IEG system, followed by an assessment of what exists, can the international community embark upon an effective reform of the system.

The report of the Consultative Group will be presented to GCSS.XI/GMEF in February 2010 with a view of informing the UN General Assembly.

The subject of IEG was also broached by a number of world leaders in the course of the year. In September, German Chancellor Angela Merkel and French President Nicolas Sarkozy wrote an open letter to the UN Secretary-General stating that "environmental governance must be overhauled" and calling for "the momentum provided by Copenhagen to make further progress towards the creation of a World Environment Organization".

In November, President Sarkozy and Brazilian President Luiz Inácio Lula da Silva issued a joint statement noting that: "Brazil and France concur in the need for the establishment of an international organization devoted to the environment and sustainable development, which

"IEG is neither a help nor a hindrance – it is an imperative... the status quo is not acceptable and there is a necessity to demonstrate boldness and to think big on the issue of international environmental governance reform."

— President's Summary of the Global Ministerial Environment Forum, February 2009

PHOTOS:

1. Participants at the IEG Consultative Group meeting in Belgrade, June 2009. © Ministry of Environment and Spatial Planning of Serbia
2. Oliver Dulić, Minister of Environment and Spatial Planning of Serbia and President of UNEP Governing Council. © Ministry of Environment and Spatial Planning of Serbia



would give coherence to the efforts of the international community in these areas.” They also stated that the organization could be established at the Rio+20 Conference in Rio de Janeiro in 2012.

Speaking during the African Summit of the Group of Ten on Climate Change in November, Kenyan President Mwai Kibaki urged his fellow Africa leaders to join hands in calling for the upgrading of the United Nations Environment Programme into a fully fledged World Environment Organization to be based in Nairobi. President Kibaki’s call was echoed by participants at the eighteenth session of the African Caribbean and Pacific European Union Joint Parliamentary Assembly a month later.

The IEG debate also offered a historic opportunity for all five successive UNEP Executive Directors to come together for the first time in 2009. A forum of 80 environmental leaders, convened by the Global Environmental Governance Project in Switzerland, in June, and co-sponsored by UNEP, fostered intergenerational dialogue, inspired renewed environmental leadership and generated new thinking on the subject of international environmental architecture.

PHOTOS:

1. The IEG debate offered a historic opportunity for all five successive UNEP Executive Directors to come together for the first time in 2009. L-R: Achim Steiner, Klaus Töpfer, Elizabeth Dowdeswell, Mostafa Tolba and Maurice Strong.
© UNEP
2. United Nations flag.
© Stockbyte/Getty Images

Possible core objectives of the IEG system identified by the Consultative Group

- Creating a strong, credible and accessible science base and policy interface.
- Developing a global authoritative and responsive voice for environmental sustainability.
- Achieving effectiveness, efficiency and coherence within the United Nations system.
- Securing sufficient, predictable and coherent funding.
- Ensuring a responsive and cohesive approach to meeting country needs.



PHOTO:

1. Nobel Peace Prize laureate Wangari Maathai was designated as a United Nations Messenger of Peace with a special focus on the environment and climate change by the UN Secretary-General Ban Ki-moon during the 2009 UN climate change conference in Copenhagen. In September, Professor Maathai addressed the Secretary-General's Summit on Climate Change on behalf of civil society.
© UNEP



“Engagement between UNEP and civil society is necessary, both for UNEP and for the protection of the planet’s fragile web of life. In this engagement lies the potential for resurgence of democracy and ecological awareness.”

— Vandana Shiva in her foreword to the *Natural Allies* publication

Natural Allies: Engaging civil society in UNEP’s work

The year 2009 has seen expanded engagement of civil society in UNEP’s work. Nearly 300 organizations from 88 countries participated in the twenty-fifth session of the UNEP Governing Council/Global Ministerial Environment Forum (GC/GMEF), exceeding by far (141 per cent and 46 per cent, respectively) the biennial targets. In addition to the nine major groups categories included in Agenda 21, other civil society organizations — from faith-based groups to cultural associations — were represented. Female participation increased from 40 to 46 per cent, and the first meeting of the Network of Women Ministers and Leaders for the Environment took place in conjunction with the GC/GMEF. For the first time, civil society delegates could directly contribute to the President’s Summary of the GC/GMEF by providing messages and recommendations. A total of 12 seats were made available for civil society to attend as full participants in each of the ministerial roundtables. UNEP is also developing guidelines to further engage indigenous peoples in its work, and has convened, together with other UN agencies, the 8th annual meeting of the Inter-Agency Support Group on Indigenous Issues which addressed, among other topics, climate change-related migration, black carbon assessments and opportunities generated by REDD.



DELIVERING AS ONE ON THE ENVIRONMENT

“Environmental sustainability is a concern for the entire UN Country Team and must be promoted...”

— Mainstreaming Environmental Sustainability in Country Analysis and the UNDAF – Guidance Note for UN Country Teams and Implementing Partners



Environmental sustainability is one of the five programming principles for UN assistance at the country level. UNEP’s expertise and support are key to make the environment an integral component of the work of the UN country teams.

To strengthen the UN country-level assistance in the area of environment, UNEP provided direct support to UN country teams and participated in the UN common country programming processes in more than 30 countries in 2009.

It chaired or co-chaired UN country team thematic working groups on environment in Indonesia, China, Myanmar, Albania and Rwanda, and integrated the Green Economy Initiative in the UN Development Assistance Frameworks (UNDAFs) for Azerbaijan, China and Cambodia.

Furthermore, UNEP was instrumental in developing and securing the endorsement of the UN Development Group guidance note

PARTNERSHIPS WITH UN

- UNEP support to 30 UNDAFs
- UNEP support to 8 UN Pilot Countries
- UNEP-ILO Green Jobs Initiative
- UNEP-UNIDO Clean Production Centres
- UNEP-WHO DDT Alternatives for Malaria Control Initiative
- UNEP/UNDP/FAO Reduced Emissions from Deforestation and forest Degradation (UN-REDD) Programme
- UNEP-IOM Migration and Climate Change Initiative
- UNEP-UNWTO Ecotourism Initiative
- UNEP-WTO project on Trade and Climate Change
- UNEP-UNFCCC Climate Negotiators Briefings
- New UNDP-UNEP MoU
- New UNESCO-UNEP MoU

PHOTOS:

1. Cattle on road between flooded fields in Mozambique. © Per-Anders Petersson/Getty Images
2. Woman wearing a kira carrying a basket. © Blaine Harrington III/Corbis

FACT
40 per cent
of UNEP
programme of
work's outputs
in 2008-2009
contributed
directly to
the Bali
Strategic Plan

on mainstreaming environmental sustainability in Common Country Assessments/ UNDAFs. UNEP put these principles into practice in Mozambique, where it was part of a team of six UN agencies supporting the Government's efforts towards sustainable development. In the context of a joint programme supported by the Spanish MDG Fund, UNEP focused on environmental mainstreaming and climate change adaptation.

In 2010, the UNEP Governing Council returns to Bali, the birthplace of the Strategic Plan for Technology Support and Capacity-building. The Plan offered UNEP an unprecedented opportunity to change the way it operates so as to meet the needs of its clients and partners. In 2009, UNEP scaled up investments in the Bali Strategic Plan agenda and is now supporting activities in over 100 countries.

Partnership with UNDP is a central component of UNEP's strategy for the effective and coordinated implementation of the Bali Strategic Plan. Following the signing of a new and enhanced Memorandum of Understanding (MoU), an inventory of joint UNDP-UNEP collaboration carried out in 2009 reveals that there are over 120 ongoing initiatives.

Sixteen UN agencies and offices met at a forum organized by UNEP and agreed to establish "UNeLearn", a UN system-wide network on technology-supported learning to share information and expertise to support the UN country teams in the delivery of the common country programmes or UNDAFs in over 160 countries.



THE POVERTY-ENVIRONMENT NEXUS

The Poverty and Environment Initiative (PEI) is a successful example of how UNDP and UNEP can work together to provide support to countries — using joint programmes implemented through UNDP Country Offices and pooling funds. Launched in 2005, the PEI today works in 18 countries in Africa, Asia-Pacific, Eastern Europe and Central Asia, and Latin America and the Caribbean. The results speak for themselves:

- In Malawi, environment is a crosscutting issue in the country's Growth and Development Strategy;
- In Bhutan, environmental considerations are the basis for all future growth and poverty reduction programmes;
- In Uganda, environment and sustainable use of natural resources is a key pillar of the 2009-2014 National Development Plan;
- In Vietnam, poverty concerns were integrated into environmental legislation, including a biodiversity law which provides for payments for ecosystem services.

The PEI is funded by the Governments of Belgium, Denmark, Ireland, Norway, Spain, Sweden, the United Kingdom, and the EC.



GREENING THE BLUE

— TOWARDS A SUSTAINABLE UNITED NATIONS



PHOTO:
1. BLUE HELMETS GO GREEN: With 18 field operations and more than 115,000 peacekeeping troops, the UN Department of Peacekeeping Operations (DPKO) represents the single largest operational entity of the United Nations. UNEP helped design a new UN policy on greening the peacekeeping operations, which came into effect on 1 June 2009, and will assist the “blue helmets” by deploying “green” advisors to DPKO field missions. As an initial step, UNEP prepared an environmental management plan for the UN and African Union peacekeepers’ base in Somalia, showing that it is possible to save energy by one quarter and halve water use. Thirteen UN peacekeeping missions — from Haiti to Sudan — planted trees in support of the UNEP Billion Tree Campaign. Pictured here: UN peacekeeping mission in DRC (MONUC). © DPKO

There is a growing urgency for the UN system as a whole, and for UNEP in particular, to lead by example in reducing greenhouse gas emissions and its overall environmental footprint. UNEP is committed to walking the talk and, in doing so, to inspire, inform and enable others to take action.

After one of the most comprehensive exercises ever undertaken by the United Nations system, the organization announced its greenhouse gas footprint at the UN Climate Change Conference in Copenhagen. The painstaking effort by all UN agencies was coordinated by the UN’s Environment Management Group, chaired by UNEP, in response to the UN Secretary-General Ban Ki-moon’s determination to make the UN a climate-friendly body.

The results indicate that the biggest international body emitted the equivalent of 1.7 million tonnes of carbon dioxide annually, of which approximately 1 million

tonnes comes from peacekeeping operations. As a key player in this historic process, UNEP measured its emissions for a second year, and procured offsets from the UN Clean Development Mechanism to compensate for the emissions caused in 2008, making the organization “climate neutral”.

As well as supporting organizations in measuring their emissions, UNEP, through the Sustainable United Nations team, provided support and guidance to over 50 UN agencies on reducing their emissions, while over 500 UN staff received training on sustainable procurement practices.

A *Green Meeting Guide* on how to minimize the environmental footprint of meetings was published and is now being used by 12 UN agencies. The first-ever meeting of green teams from across the UN system was held in Geneva in September, and UNEP rolled out the green carpet for delegates to its annual Governing Council meeting.

The website www.unep.org/sustainability, launched on World Environment Day, provides information on greening initiatives to staff and other stakeholders.

The Regional Office for Latin America and the Caribbean was named the greenest UNEP office, the Regional Office for North America became the first UN office to receive a gold-level LEED rating by the US Green Building Council, and the ground was broken for the future energy-neutral building at UNEP headquarters in Nairobi.

PHOTO:

1. The central atrium will be covered with a translucent roof to allow daylight into the building. Visible rainwater harvesting is part of the design. © UNEP

“Many UN staff have been running voluntary initiatives, often for many years, promoting sustainable practices within the organization. Staff from many UN agencies worked together as part of the Step by Step initiative to ‘green’ the Gigiri complex which houses the UN in Nairobi.”
— Lova Andre,
UNEP Climate Neutral Strategy Officer



GREENING GIGIRI

The UN campus in Nairobi is a beautiful 140-acre “green lung” on the outskirts of the Kenyan capital. The compound is home to more than 600 indigenous tree species, as well as many birds and small mammals.

The UN complex already harvests rainwater, recycles waste and wastewater, and uses solar water heaters and natural ventilation for its buildings. With the projected expansion of UN presence in Nairobi from today’s 2,500 to some 4,000 staff in the future, the decision was taken to build a new UNEP headquarters building. The ambition is to make it one of the greenest buildings in Africa.

The construction started in May 2009 and is planned to be completed by the end of 2010. The building will have 16,500 m² of tenable space, and will cater for 1,200 staff members.

The building aims to be energy neutral — in other words, it should consume no more energy than it can generate through photovoltaic panels on its roof, and energy-saving features like light wells to enhance natural lighting indoors.



TOWARDS SEALING A CLIMATE DEAL

PHOTO:

1. Mohamed Nasheed, President of the Republic of the Maldives, added his voice to the UN-wide Seal the Deal! campaign spearheaded by UNEP. The campaign aimed at galvanizing political will and public support for a robust climate agreement. From Heads of State and business leaders to celebrities and people in the streets, the campaign enlisted support from all sectors of society and coalesced 13 million signatures. President Nasheed also announced plans to make his country carbon neutral by 2019, and the Republic of the Maldives joined the UNEP Climate Neutral Network.
© UNEP

The year 2009 was one of unprecedented worldwide mobilization and engagement on the issue of climate change that culminated at the UN Climate Change Conference in December with the Copenhagen Accord. The Accord calls for urgent action in order to keep the global temperature increase below 2° C, and pledges an immediate financial package for developing countries to adapt to the adverse consequences of climate change and begin decarbonizing their economies. UNEP is focusing its efforts on helping nations seal a fair, ambitious, scientifically credible and comprehensive climate deal.

For the first time, UNEP, in collaboration with the Scientific Committee on Problems of the Environment Secretariat and other partners, published the *Climate Change Science Compendium* — a compilation of some 400 major peer-reviewed scientific contributions over the past three years on how the climate is changing and the implications of such change.

Responding to a strong demand from governments, stakeholders and the scientific community, the Compendium is intended to complement the *Assessment Reports* produced by the Intergovernmental Panel on Climate Change (IPCC) every four to five years. As such, the *Compendium* assists negotiators in bridging climate change science and necessary policy responses.



On the eve of the UN climate summit, Lord Nicholas Stern published a new landmark study developed in collaboration with UNEP. It underscored that closing the gap between current pledges and the reductions necessary to avoid a rise in global temperature of more than 2° C could realistically be achieved through more ambitious targets from both developed and developing countries, reducing carbon emissions from deforestation and other sources, and addressing emissions from aviation and shipping sectors.

In close collaboration with the UNFCCC, UNEP organized preparatory sessions and provided associated training to over 500 climate negotiators from 150 developing countries, including least developed countries and small island developing States.

In Africa, UNEP has been supporting the work of the African Ministerial Conference on the Environment, which achieved a common negotiating position of the continent on the post-2012 international climate regime. UNEP also worked with parliamentarians as they launched the Pan-African Parliamentary Network on Climate Change and the Pan-African Initiative on Climate Change Adaptation and Disaster Risk Reduction.

In Brazil, UNEP assisted the Government in establishing the Brazilian Panel on Climate Change based on the IPCC model.

In 2010, UNEP will continue its efforts towards realizing a legally binding treaty at the UN climate change conference in Mexico, while focusing on the three inter-linked priorities (see box below).

PHOTO:

1. Solar panel and sunflower.
© Rotofrank/iStockphoto

SUPPORTING COUNTRIES IN MEETING THE CLIMATE CHANGE CHALLENGE

UNEP is accelerating its role, responsibilities and response to climate change under a new strategy tailored to the needs of Member States and a growing number of requests on how best to realize a low-carbon, resource-efficient green economy for the twenty-first century. The strategy focuses on the following three inter-linked priorities:

- **ECOSYSTEMS-BASED ADAPTATION:** Helping developing countries build resilience through ecosystems-based adaptation measures.
- **REDD+:** Supporting national processes for REDD+ readiness and helping countries to factor in co-benefits of REDD and other terrestrial carbon sequestration to enhance the overall sustainability of REDD and reduce risks to its success.
- **CLEAN TECHNOLOGY READINESS:** Helping developing countries build “readiness” for clean technology uptake and scale-up (attracting and effectively using available funds), with an initial focus on bioenergy and solar energy.





RIGHT ON TARGET – MONTREAL PROTOCOL

“The message of optimism that emanates from the Montreal Protocol is on what can be achieved globally when world leaders embrace pragmatism in accepting common but differentiated responsibilities and translating this into action.”

—Rajendra Shende, Head of UNEP OzonAction Programme

PHOTOS:

1. Targets under the Montreal Protocol. © UNEP
2. Frozen thermometer, mercury reading below freezing point. © /Getty Images



The ozone treaties have in 2009 achieved a series of extraordinary landmarks which will stand the international community in good stead as it works towards a low-carbon, resource-efficient green economy.

With the accession of the world's youngest democracy — Timor Leste — the Montreal Protocol has achieved the unique goal of universal participation — a feat achieved by no other multilateral environmental treaty.

The Protocol is well on target to meet the 2010 deadline for developing countries' full and final phase-out of chlorofluorocarbons (CFCs) and halons. Their next challenge, by 2013, is to freeze the consumption and pro-

duction of the CFC-replacement substances known as hydrochlorofluorocarbons (HCFCs), which are potent global warming gases.

Through its OzonAction programme and with funding from Multilateral Fund and the GEF, UNEP works with developing countries and those with economies in transition to help them comply with this deadline, with a view to phasing out HCFCs globally by 2030.

The Montreal Protocol's contribution to climate change was further discussed at the twenty-first Meeting of the Parties in 2009; however, countries deferred consideration of the proposed action to phase-out hydrofluorocarbons (HFCs) to the UNFCCC.



GOOD CHEMISTRY – PROMOTING SYNERGIES AMONG CHEMICALS AND WASTES-RELATED CONVENTIONS



BASEL CONVENTION



ROTTERDAM CONVENTION



STOCKHOLM CONVENTION

In identical decisions, the Conferences of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and the Stockholm Convention on Persistent Organic Pollutants have called for greater cooperation and coordination among these three like-minded conventions aimed at strengthening their implementation at the national, regional and global levels, greater coherence in policy guidance provided to parties, and more efficient use of resources.

For the first time ever, parties to the Basel, Rotterdam and Stockholm conventions will

convene for the simultaneous extraordinary meetings of their Conferences of the Parties (known as ExCOPs) in February 2010, in conjunction with GCSS.XI/GMEF. At the ExCOPs, the Parties are expected to take decisions on how to further enhance the synergies among the chemicals and wastes-related conventions including joint activities, services, management, budget cycles and audits, and a review mechanism.

In preparation for the ExCOPs, the UNEP Executive Director, in consultation with the FAO Director-General, established a Synergies Oversight Team, composed of heads of convention secretariats, UNEP and FAO, which is also mandated to look at synergies from a strategic and long-term perspective. Lessons learned from this process will feed into both the ongoing efforts towards promoting synergies among biodiversity-related conventions, and the high-level IEG discussions.

ACTION TO DEAL WITH MERCURY RISING

After years of negotiations, environment ministers from over 140 countries took the landmark decision at the UNEP Governing Council in February 2009 to launch negotiations on an international mercury treaty to deal with worldwide emissions and discharges of this toxic heavy metal. UNEP has been tasked with convening the intergovernmental negotiating committee which will meet for the first time in 2010, with the goal of completing the work by 2013. Through its Global Mercury Partnership, UNEP has stepped up its work to eliminate dangerous mercury releases to air, water and land. Countries in Asia-Pacific and Latin America and the Caribbean have begun to assess options for long-term mercury storage, while in Kazakhstan, stakeholders are considering shutting down the last mine supplying mercury for the global market.



STRENGTHENING SCIENCE AND POLICY ON BIODIVERSITY AND ECOSYSTEM SERVICES



PHOTOS:

1. 30 per cent of all amphibians are threatened with extinction. © Biosphoto – Montford Thierry
2. Waterfall. © Moodboard/Corbis

While the scientific knowledge about the importance of biodiversity and ecosystem services for human well-being has grown exponentially, its contribution to policy making at all levels could be further improved.

Since 2008, UNEP has been facilitating a dialogue among governments, biodiversity-related conventions and a wide range of stakeholder organizations on ways and means to strengthen the science-policy interface on biodiversity and ecosystem services, possibly through the establishment of an intergovernmental panel similar to the one that catalysed political action on the issue of climate change.

Momentum towards the establishment of an Intergovernmental Panel or Platform on Biodiversity and Ecosystem Services (IPBES) gathered pace at a meeting of close to 100 governments in Nairobi in October 2009.

The final decision will be taken by governments in 2010, which marks the International Year of Biodiversity and the global deadline for reversing the loss of biodiversity set by the World Summit on Sustainable Development in 2002.

As a global biodiversity data and information integrator, the UNEP–World Conservation Monitoring Centre in 2009 continued to deliver scientifically credible analyses of biodiversity and ecosystems through spatial mapping technologies, coordinated the preparation of the key biodiversity indicators for assessing the 2010 biodiversity target, and provided technical support to the biodiversity-related multilateral environmental agreements.

The 2010 Biodiversity Indicators Partnership, supported by the GEF and involving over 40 global institutions, is playing a leading role in preparing governments to track the rate of loss of biodiversity in a scientifically sound and defensible manner, enabling the development of policy measures to safeguard the world's biodiversity.

At the national level, UNEP helped develop and implement biodiversity policies in Botswana, Chile, China, Costa Rica, India, Kenya, Namibia and South Africa. It also worked at the regional level with the Association of Southeast Asian Nations (ASEAN), the Group of Latin America and Caribbean Countries (GRULAC) and the Africa region.



2010 International Year of Biodiversity



CHARTING A FRESH COURSE FORWARD

Transboundary freshwater resources account for 60 per cent of global freshwater flow, but more than half of international river basins lack any type of cooperative frameworks and only one fifth of those include all riparian states. Moreover, current arrangements are often geared towards meeting human demand at the expense of the environment.

In pursuance of its Water Policy and Strategy adopted by the Governing Council in 2007, UNEP laid a renewed focus in its work on raising the recognition of the environmental dimension of freshwater governance, particularly in the context of transboundary resources.

Together with the Government of Thailand, UNEP organized the High-level Ministerial Conference on Strengthening Transboundary Freshwater Governance in Bangkok, in May 2009. Over 100 participants, including ministers, government officials, heads of water basin authorities, UN partners and leading experts adopted the Bangkok Plan of Action which has since been endorsed by over 25 governments. They also requested UNEP to convene — for the first time — a regular forum to address environmental issues related to freshwater resources management.

The new series of UNEP reports *Freshwater Under Threat* covering major basins

across Asia and Africa further underscored vulnerability of freshwater resources to environmental pressures, especially climate change. On both continents, use of freshwater for agriculture, industry and energy has increased markedly over the last 50 years, exceeding the average annual natural water replenishment.

In Brazil, a UNEP-GEF project has established the institutional cornerstone mechanism for participatory and integrated management of the São Francisco River Basin, which has become known as “Water Parliament”. It implements the Brazilian Water Law and represents the concerns of over 500 municipalities.

In recognition of the environmental dimension of freshwater management, World Water Day 2010 will focus on water quality and will be spearheaded by UNEP.





RESPONDING TO DISASTERS AND CONFLICTS



PHOTOS:

1. Refugee camp in DRC. © UNEP
2. Afghanistan central highlands. © UNEP
3. Dormant oil installations remain an environmental hazard in Ogoniland. © UNEP
4. An Ivorian man wears a mask at Akuedo where toxic waste has been dumped in Abidjan, Ivory Coast in 2006. © Legnan Koula/epa/Corbis
5. Pastoralists in Sudan. © UNEP

Since 1990, at least 18 violent conflicts have been fuelled by the exploitation of natural resources. While environmental factors are rarely, if ever, the sole cause of violent conflict, the exploitation of national resources and related environmental stress can further escalate conflicts. These are the key findings of the flagship report *From Conflict to Peacebuilding: the Role of Natural Resources and the Environment*, published by UNEP in February 2009.

Since 1999, UNEP has provided advice on post-crisis environmental assessment and recovery in more than 25 countries. In 2009, UNEP established a new programme to mainstream environmental issues within humanitarian operations and strengthened its collaboration with the key UN agencies,

notably the UN Peacebuilding Support Office and the Department of Peacekeeping Operations.

In a joint report with the Environmental Law Institute, titled *Protecting the Environment during Armed Conflict*, UNEP put the spotlight on the current gaps and weaknesses for protecting the environment during armed conflict and analysed the international law on the subject.

In the course of the year, UNEP provided expertise in over 12 crisis-affected locations, including Afghanistan, China, the Gaza Strip, Myanmar, Sierra Leone, Central African Republic, Côte d'Ivoire, Democratic Republic of the Congo, Haiti and Nigeria.

As of 1 January 2010, UNEP also chairs the Environment and Security (ENVSEC) Initiative — a partnership involving UN agencies and intergovernmental organizations, working in 18 countries from the Balkans to Central Asia.

In 2009, UNEP conducted assessments of the hydropolitical vulnerability and resilience along international waters in Africa, Latin America and the Caribbean, Asia, Europe and North America. The report found that although there has been conflict and tension around the world, the good news is that nations often have chosen cooperation over conflict when it comes to water — the so-called “hydro-diplomacy” is now at the forefront of scientific enquiry.



SEEKING AFGHAN SOLUTIONS TO AFGHAN PROBLEMS

UNEP has been working in Afghanistan since 2002. In 2009, the Afghan Government requested UNEP's assistance in resolving the recent conflicts over access to high-altitude summer pastures in the central highlands between the ethnic Hazara minority and nomadic pastoralists who are predominately Pashtun. The conflicts have resulted in scores of deaths, large-scale human displacement, and devastation of livestock and property. Working closely with the relevant political, governmental and community actors, UNEP undertook a detailed analysis of the problem and its causes, and recommended a strategy that seeks Afghan solutions to Afghan problems whilst reflecting the latest in international best practice. The strategy, due to be implemented in early 2010, feeds into UNEP's broader work in Afghanistan, including the development of a new community-based rangeland law and the piloting of various community-based approaches to natural resource management.

ASSESSING OIL CONTAMINATION IN Ogoniland

Oil exploration and production in the oil-rich Niger Delta started during the 1950s but operations were suspended in the early 1990s due to local public unrest. The oilfields and installations have since remained dormant; however environmental contamination of land, water and air is still ongoing, and further oil spills have occurred over the past 15 years. At the request of the Nigerian Government, UNEP agreed to undertake an environmental assessment of the Ogoniland region. Despite the complex political environment in the country, UNEP formally initiated the project in 2009, opened a project office in Port Harcourt, and provided capacity building and training on technical, communication and security issues. The assessment of some 300 sites will commence in January 2010.



STRICTER CONTROLS FOR HAZARDOUS WASTE IN CÔTE D'IVOIRE

Following a highly publicized incident of dumping of hazardous waste in Abidjan, Côte d'Ivoire's largest city, in 2006, UNEP has worked with the Secretariat of the Basel Convention, the International Maritime Organisation, Centre Ivoirien Anti-Pollution established by the Ministry of Environment Water and Forests, as well as other partners, to build local capacity for hazardous waste management. The Hazardous Waste Management Plan, validated by national stakeholders in October 2009, paves the way for better controlling hazardous waste entering the Port of Abidjan, reducing the risk of environmental disasters occurring in the future, encouraging safer waste treatment and disposal processes, and strengthening the legislative framework.

SCALING UP ENVIRONMENTAL RECOVERY IN SUDAN

Having completed a major environmental post-conflict assessment of Sudan in 2007, UNEP has secured a three-year, \$25 million second phase environmental recovery programme in the country, funded by the UK Government. The programme will continue to focus on capacity building and effective management of natural resources, primarily water and forests. In addition, UNEP's presence is being expanded to southern Sudan and Darfur, through the establishment of coordination offices in Juba, El Fasher and Nyala in 2009. Thanks to UNEP's involvement, the 2009 Common Humanitarian Fund for Sudan allocated \$1 million to environmental mainstreaming — from sustainable construction technologies and drought preparedness strategies in internally displaced persons and refugee camps, to the rollout of 70,000 fuel-efficient stoves and tree planting of 630,000 seedlings to curb deforestation in the region.



GREEN

LIFESTYLES

04



SUSTAINABLE LIFESTYLES. As consumers, voters and community members, individuals can make the biggest single contribution to the environment by shifting their lifestyles onto a more sustainable path. Through their purchasing and investment choices, they also have the power to influence businesses to green their products and services, and to support more sustainable policies in their communities, cities and countries.

By engaging diverse stakeholders in its outreach and education activities, working with governments to mainstream sustainable consumption and production, and using the latest e-learning and social networking tools, UNEP seeks to achieve a multiplier effect in its efforts to care for the environment, promote efficient use of resources and help create green and decent jobs.



SUSTAINABLE CONSUMPTION AND PRODUCTION



If countries are to decouple economic growth from negative environmental impact, fundamental changes need to be made not only in the way producers design, manufacture and market their products but also in the manner that consumers choose and use these products. UNEP is working to promote more sustainable consumption and production patterns and lifestyles, targeting both decision makers and the broader public.

UNEP, together with the UN Department of Economic and Social Affairs, is leading the Marrakech Process on Sustainable Consumption and Production (SCP). This informal expert process is helping to prepare the 10 Year Framework of Programmes (10-YFP) on SCP, to be reviewed by the UN Commission on Sustainable Development in 2010-2011.

Regional consultations under this process have, since 2003, contributed to the

development of regional strategies on SCP in Latin America and the Caribbean and Europe, and have launched a regional 10-YFP in Africa, endorsed by African environment ministers. Seven Marrakech Task Forces have designed and, in many cases, developed capacity for policies ranging from sustainable procurement to sustainable lifestyles.

At the national level, UNEP helped to kick-start national SCP action plans in Azerbaijan, Croatia and Kazakhstan. With funds from the EU, Switzerland and the Francophone Agency, UNEP has trained officials from 40 countries on designing and implementing sustainable public procurement. Chile, Costa Rica, Mauritius and Tunisia are already benefiting from capacity-building activities under this programme, and four more countries will participate in 2010.

Practical tools and experience gathered in the Marrakech Process are being fed directly into intergovernmental negotiations ahead of the eighteenth session of the UN Commission on Sustainable Development.

Promoting a cultural shift from consumerism to sustainability is at the heart of UNEP's work. A Global Survey on Sustainable Lifestyles based on 8,000 replies from 20 countries has shown that people in both developed and developing countries appreciate the need to simultaneously address the poverty and environmental challenges by promoting sustainable lifestyles.

Up to half of the food produced today is either lost, wasted or discarded as a result

PHOTOS:

1. Chemical plant worker turning valve. © Lester Lefkowitz/Getty Images
2. Young woman using cell phone. © Randy Faris/Corbis

of inefficiency in the human-managed food chain, found the 2009 UNEP Rapid Assessment Report titled *The Environmental Food Crisis*, published in collaboration with UNEP/GRID-Arendal and UNEP-WCMC in response to the 2008 food crisis. The report made seven recommendations to change the way in which food is produced, handled and disposed of across the globe — from farm to store and from fridge to landfill — in order to feed the world's rising population and help the environmental services that are the foundation of agricultural productivity.

The UNEP International Panel for Sustainable Resource Management, launched in 2007, is also supporting the transition to a green economy by providing independent, coherent and authoritative scientific assessments on the drivers and pressures associated with resource consumption over the entire life-cycle of products. In 2009, the Panel released the landmark report on biofuels (see GREEN ENERGY section).

In Latin America and the Caribbean, UNEP launched the first regional e-learning platform on sustainable consumption and production called Redpycs.

A UNEP-led project funded by the EC and the German Government prepared 26 experts from South Africa, Brazil, Mexico, China, India, Kenya and Ethiopia to deliver training to enable private enterprises to meet eco-labelling requirements and thus access new markets for green products in Europe and elsewhere.

Meanwhile, Brazil, Mexico and Cameroon achieved, for the first time, the Forest Stewardship Council's endorsement of their national certification standards for forest management in small and low-intensity managed forests, thanks to a GEF-funded project. Pilot certification schemes have since been able to access loans and grants from banks, government and international organizations.



Suzhou City Mobile Phone Recycling Project

In 2001, China became the country with the largest number of e-product consumers, with one in every four Chinese now owning a mobile phone. The race for the latest gadgets further fuels both production and consumption. Mobile phones not only contain toxic substances such as lead, cadmium and bromide, but also materials worth recovering like plastic and valuable metals. However, most end up in landfills. In Suzhou city, the Basel Convention Coordination Centre for Asia and the Pacific is tackling this growing e-waste problem through a mobile phone recycling project — repairing “reusable” phones and donating them to charity organizations, and treating “non-reusables” to reduce harmful impact on the environment. This is just one of the 47 projects supported by the Asia Pacific Forum for Environment and Development Showcase Programme, funded by the Government of Japan and serviced by UNEP in close collaboration with the Institute for Global Environmental Strategies, Japan. The programme awards grants of up to \$30,000 to projects that demonstrate innovative approaches to address environmental problems.



GREEN CHAMPIONS



PHOTOS:

1. On 22 April 2009, seven deserving laureates from around the world gathered in Paris to receive the coveted UNEP Champions of the Earth Award. The 2009 Champions of the Earth are: Norwegian Environment Minister Erik Solheim; tropical forest and climate campaigner Kevin Conrad; photography and public awareness advocate Yann Arthus-Bertrand; visionary wind power entrepreneur Tulusi Tanti; biomimicry pioneer Janine Benyus; recycling innovator Ron Gonen; and the youth-empowering Ethiopian organization Tena Kebena. © UNEP
2. Yann Arthus-Bertrand. © Yann Arthus-Bertrand
3. Gisele Bündchen. © UNEP

Whether they are economists or philosophers, musicians or artists, religious or civic leaders, or sports personalities, UNEP engages people from all walks of life who are making a real difference in protecting our planet.

In 2009, UNEP reinvigorated the Champions of the Earth — the UN's flagship award for environmental leaders — by introducing four new categories: Policy Leadership, Entrepreneurial Vision, Science and Innovation, and Inspiration and Action. UNEP also signed a three-year partnership with LG Electronics in support of the awards.

In addition to the Champions of the Earth Awards, UNEP rewards innovative projects in the field of sustainable development

through administering the annual Sasakawa Prize and supporting grass-roots initiatives through the SEED—Supporting Entrepreneurs for Sustainable Development programme in partnership with UNDP, IUCN and others. Through its Green Star Award launched with Green Cross International and UN Office for Coordination of Humanitarian Affairs in 2009, UNEP recognizes remarkable efforts to prevent, prepare for, and respond to environmental disasters.

In 2009, UNEP also revitalized its Goodwill Ambassadors programme with the designation of French photographer Yann Arthus-Bertrand and Brazilian supermodel Gisele Bündchen. The two global figures will help generate public awareness of environmental causes, as well as inspire positive, committed action in support of UNEP's policies and work.



YANN ARTHUS-BERTRAND'S

striking aerial photos and videos have caught the attention of millions, awakening them to the beauty of our planet and the need to sustain it. In addition to his photographic endeavours, he began a non-profit organization, GoodPlanet, which helps educate the public on ways of leading a more environmentally responsible life.

In 2000, Yann's art exhibition titled "Earth from Above" premiered in Paris. The exhibition aimed to inspire people to think globally about sustainable living while admiring images that show our planet in its fragile and stunning splendour. To date, the book has sold millions of copies in over 21 languages.

In 2009, on World Environment Day, Yann released his film "HOME" in which he takes the audience on a unique journey around the planet. HOME premiered in more than 100 locations around the world — including star-studded premieres at the Eiffel Tower and New York City's Central Park. During the UN climate conference in Copenhagen, Yann and GoodPlanet offered free screenings of his latest project "6 Billion Others"— a film made up of thousands of interviews which attempt to capture the real-life impact of climate change all over the world.

"I decided to do anything that is in my power to bring awareness, to make a difference because this is the most precious thing we have, our planet. I've got to do something about it. I feel very excited and happy. I just want to put up my sleeves and go to work."

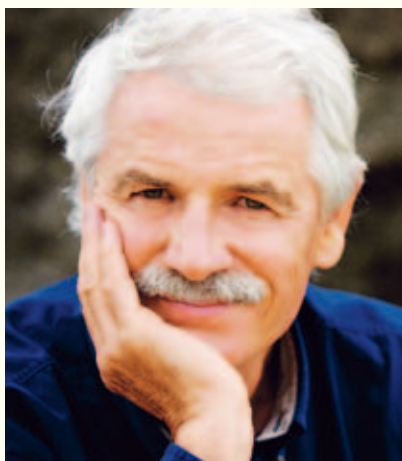
— Gisele Bündchen

Meet the UNEP Goodwill Ambassadors

"When we talk about global warming, we already know what is going to happen, but we don't want to believe it. We are so far away from what we have to

do. I am a journalist and a photographer; I'm trying to explain things."

— Yann Arthus-Bertrand



GISELE BÜNDCHEN is one of the most famous models of all time and has a long-standing and passionate commitment to the environment. Gisele uses her global reach to bring awareness about protecting the planet to people across continents and from all walks of life.

While growing up in Brazil, Gisele saw the destruction of nature up close, when the forests in the surrounding areas were being denuded. She became an environmental activist after spending time with an Indian tribe in the Amazon Rainforest where she witnessed the problems they faced due to water pollution and deforestation. Since her visit, she has worked on several projects and campaigns to call attention to environmental causes.

In 2008, she returned to her hometown of Horizontina where she and her family launched Projeto Água Limpa (Clean Water Project). The project aims at promoting sustainable management and environmental recovery of riparian vegetation and the micro-basins of the region.



GENERATION “GREEN”

PHOTOS:

1. The Tunza Conference brought youth representatives face-to-face with high-profile political and business leaders, including Prime Minister of the Republic of Korea and UNEP Executive Director, to discuss the prospects for a future climate change regime. © UNEP
2. Traditional Mayan “Healing the Earth” ceremony held as part of 2009 World Environment Day celebrations in Mexico. © UNEP

Half of the world’s population is under 25. Their future will be affected by today’s environmental degradation. Through its TUNZA programme, annual World Environment Day celebrations and outreach partnerships, UNEP works to help young people become strong allies and outspoken advocates for the environment.

In August, UNEP organized its Tunza International Children and Youth Conference in Daejeon, Republic of Korea, which brought together 700 children and young people from 111 countries. The Conference was the culmination of three months of online discussions by over 10,000 young people on climate change issues. They agreed to share information on their efforts and adopted a statement, which was later delivered by a youth representative to the Secretary-General’s High Level Summit on Climate Change in New York and also presented at the UNICEF Children’s Forum in Copenhagen.

The Big Green Help campaign is a global initiative by Nickelodeon, the most widely distributed kids television network in the world, carried out in partnership with UNEP. The campaign translates complex environmental messaging into simple meaningful actions to empower kids to lead the way in making the Earth a greener planet. The campaign began in late 2008 and, by the end of 2009, reached over 45 million viewers in Asia-Pacific.

The joint UNEP-UNESCO YouthXchange programme promotes sustainable lifestyles among young consumers in over 20 countries through capacity building and outreach.

At a smaller scale, but no less inspiring, UNEP and other UN agencies organized Latin America’s first-ever Environment Art and Film festival, “DeVerde”, which toured more than 30 different towns in Uruguay and was attended by around 10,000 people.



“On this 2009 World Environment Day, we wish to plant a seed in all the inhabitants of this planet. We hope that this seed engenders a stronger environmental conscience and a commitment to conserve and protect our shared natural treasures, in order to support efforts on the climate change front, and also to encourage and participate in a new green economy.”
—Mexico’s Minister of Environment Juan Rafael Elvira Quesada

In the era of online communications and social networking, UNEP is utilizing a host of tools as part of its overall outreach strategy.

The redesigned www.unep.org highlights UNEP’s work in the six priority areas and has received over 13 million visits, an increase of 12 per cent compared to 2008. The increased availability of content in UN languages other than English on the UNEP website has gone a long way towards catering for the needs of UNEP audiences around the world.

A dedicated UNEP channel on YouTube was created, and its videos on environmental hotspots available on Google Earth

and YouTube have reached over 500 million Internet users worldwide.

The UNEP page on the Chinese social networking site Ren Ren has attracted over 500,000 members just six months after its launch.

For the first time, UNEP launched an online campaign on Twitter, a social networking site. Dubbed “Twitter for Trees”, the campaign vowed to plant one tree for every “follower” of the UNEP Twitter profile by World Environment Day. By midnight on 5 June, the *UNEPandYou* Twitter profile broke the 10,000 follower mark. UNEP planted the 10,000 trees in Kenya in November.



WORLD ENVIRONMENT DAY, marked each year on 5 June, is the UN’s day for stimulating worldwide awareness of the environment and enhancing political attention and action. In 2009, Mexico hosted World Environment Day under the theme: “Your Planet Needs You! Unite to Combat Climate Change”. Aside from the official ceremonies in Mexico attended by the country’s President Felipe Calderón, UNEP Executive Director Achim Steiner and Mexico’s Minister of Environment Juan Rafael Elvira Quesada, people all over the world celebrated World Environment Day by organizing their own events from neighbourhood clean-ups and tree-plantings to sporting contests and painting competitions. Participants in more than 80 countries registered around 1,600 events held in observation of the Day. The 2010 World Environment Day will be hosted by Rwanda, under the slogan “Many Species. One Planet. One Future.”



**“Online Access to Research in the Environment has the potential to assist in building result-oriented institutions that can effectively respond to environmental challenges.”
— Therese Siricio Iro, Minister of Environment, Sudan**

The provision of timely and quality-assured data and information for assessing the state of the environment and the pressures acting upon it is a fundamental first step to reverse climate change, land degradation and biodiversity loss. This enables policy makers to decide on appropriate measures for protecting the environment from global to local level, and to monitor the effectiveness of policies and measures implemented.

UNEP is playing a convening role in mobilizing institutional cooperation through strengthening partnerships and networking — involving the scientific community, policy makers, industry leaders, the donor community and the UN family — in order to bridge the gap in the access to environmental knowledge and information.

GREEN LEARNING

The first meeting to address the concept of a global environmental information network was hosted by the Abu Dhabi Environment Agency and UNEP in April 2009. Over 50 environmental information and data experts from around the world identified the next steps towards developing a global environmental information system to enable countries to share environmental data and best practices.

The UNEP-led Online Access to Research in the Environment (OARE) programme has registered over 1,800 institutions since its launch in 2006, increasing research output in developing countries by nearly 200 per cent. OARE is addressing the pressing needs in the developing countries for better access to up-to-date, peer reviewed scientific information on the environment and related sciences by offering free-of-charge or low-cost access to materials from over 108 publishers.

UNEP News Centre on www.unep.org is the main gateway for environmental news and information for the media and the general public. The year 2009 recorded a 30 per cent increase in the number of website visits and press materials. UNEP also partnered with two leading media organizations — Thomson Reuters and Xinhua agency’s Africa bureau — with the aim of sharing pertinent environmental information and increasing coverage of UNEP activities.



PHOTO:
1. OARE training session in Juba, Sudan. © UNEP

FACT
There are over
10 definitions
of the
precautionary
principle/
approach in
existence.



PHOTO:
1. Bookmark
© Nadezda Firsova

Consistency and coherence are the foundations of strong international law. There is a vast number of multilateral environmental agreements (MEAs), yet there is only one body of international environmental law. However, unlike the case for labour or trade-related principles in public international law, the formulation and application of environmental principles is less consistent across MEAs.

Making data accessible and compatible is also urgently needed to help countries comply with their obligations under various environmental conventions. How can MEAs keep track of each other? How can consistency and further development of environmental law be promoted?

The MEA Information Management (MEA IM) Initiative seeks to address these needs by providing a platform for UNEP-administered and other environmental conventions, parties and other relevant institutions to harmonize data and promote a more coherent online presentation of environmental law.

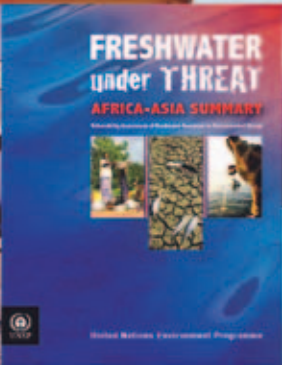
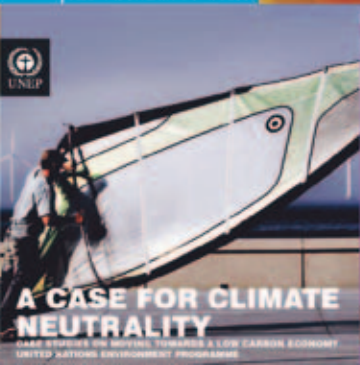
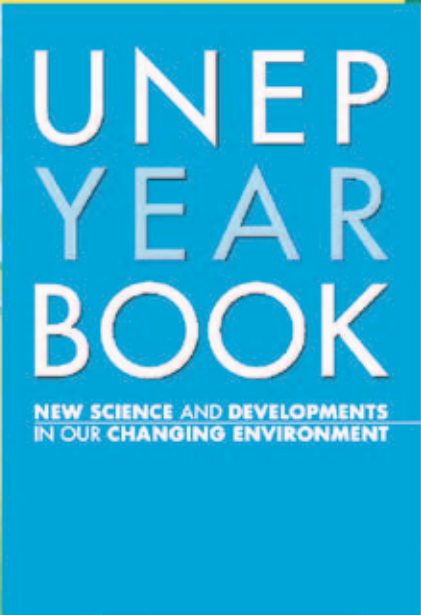
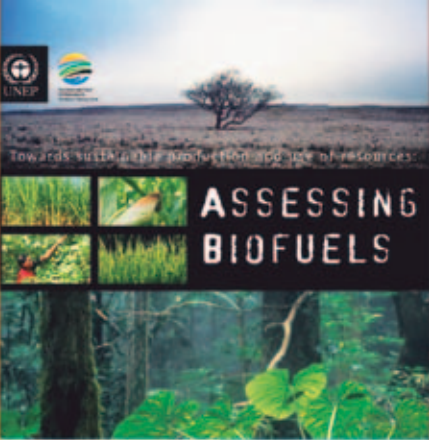
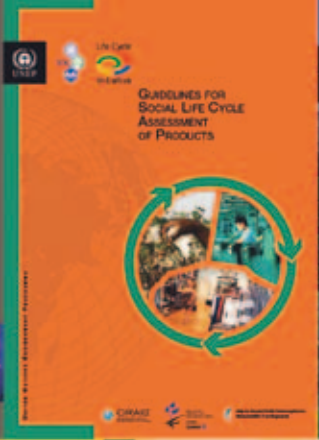
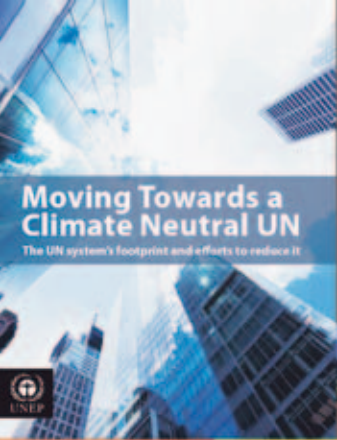
Building on existing initiatives that provide information on environmental law and conventions, notably ECOLEX, TEMATEA and InforMEA, as well as the latest tools like Web 2.0, the Initiative will develop a one-stop

online guide which will provide the latest information using an analytical index and common terminology.

The Initiative was kicked off at a meeting in Chexbres, Switzerland, in September, which brought together ten MEAs, UNEP and partners. The meeting was followed by the establishment of the MEA IM Steering Committee two months later with representatives from CBD, CITES, CMS, ITPGRFA, UNCCD, Stockholm, Rotterdam, Basel and Ramsar Conventions and the Montreal Protocol, observers from EMG, IUCN, UNEP-WCMC and Columbia University, and advisors from UNFCCC and WTO.

As a first step towards a long-term MEA IM strategy, participants agreed to share and make “exchangeable” information on decisions and resolutions of their respective Conferences of the Parties, convention calendars, national focal points, and official documents. Future plans include an online MEA university and real-time decision tracking tools for MEA secretariats and parties.





UNEP

THE NATURAL FIX?

THE ROLE OF ECOSYSTEMS IN CLIMATE MITIGATION

A UNEP WORLD RESOURCES ASSESSMENT

UNEP

Environmental Assessment of the Gaza Strip

Final Report: Evaluation of the Situation in the Gaza Strip, 2006-2007

ENVIRONMENT OUTLOOK IN AMAZONIA

GEO AMAZONIA

UNEP

INDEPENDENT ENVIRONMENTAL ASSESSMENT

BEIJING 2008 OLYMPIC GAMES

UNITED NATIONS ENVIRONMENT PROGRAMME

UNEP

From Conflict to Peacebuilding

The Role of Natural Resources and the Environment

UNITED NATIONS ENVIRONMENT PROGRAMME

UNEP

THE ENVIRONMENTAL FOOD CRISIS

THE ENVIRONMENT'S ROLE IN AVERTING FUTURE FOOD CRISES

A UNEP WORLD RESOURCES ASSESSMENT

UNEP

The Economics of Ecosystems & Biodiversity

TEEB FOR POLICY MAKERS

SUMMARY: RESPONDING TO THE VALUE OF NATURE

UNEP

An Assessment of Assessments

Findings of the Group of Experts

Pursuant to UNGA Resolution 60/30

Summary for Decision Makers

UNEP

GEF Transboundary Waters Assessment Programme (TWAP)

UNEP GEF

ORGANIZATIONAL STRUCTURE AND FINANCE



INVESTING IN UNEP's FUTURE. The year 2009 saw UNEP making great strides to prepare for a new way of doing business in line with its Medium-Term Strategy 2010-2013, attract and retain human talent and secure the financial resources for an expanding programme despite the financial crisis.

This section contains information on UNEP's governing structure, the Programme of Work 2010-2011, as well as its staff and funding situation.



UNEP GOVERNING STRUCTURE



The UNEP Governing Council was established in accordance with General Assembly resolution 2997 (XXVII) of 15 December 1972. The Governing Council reports to the General Assembly through the Economic and Social Council. Its 58 members are elected by the General Assembly, for four-year terms, taking into account the principle of equitable regional representation. Full information on the composition, functions and responsibilities of the UNEP Governing Council and the Committee of Permanent Representatives, formally established and strengthened as a subsidiary organ to the Governing Council by decision 19/32 of 4 April 1997, is available at www.unep.org/governingbodies.

BUREAU MEMBERS, UNEP GOVERNING COUNCIL

President

H.E. Mr. Oliver Dulić
Minister of Environment and Spatial Planning
(Republic of Serbia)

Vice-Presidents

H.E. Mr. Mohamed Cherif Rahmani
Minister of Land Management Planning and
Environment (Algeria)

H.E. Juan Carlos Cué Vega
Ambassador and Permanent Representative
(Mexico)

Mr. John Matuzsak
Department of State (USA)

Rapporteur

H.E. Mr. Budi Bowoleksono
Ambassador and Permanent Representative
(Indonesia)

BUREAU MEMBERS, COMMITTEE OF PERMANENT REPRESENTATIVES

Chair

H.E. Mr. Daniel Chuburu
Ambassador and Permanent Representative
(Argentina)

Vice-Chairs

H.E. Mr. A.K.M. Shamsuddin
High Commissioner and Permanent
Representative (Bangladesh)

H.E. Mrs. Margita Fuchsová
Ambassador and Permanent Representative
(Czech Republic)

Ms. Regine Hess
Deputy Permanent Representative
(Germany)

Rapporteur

H.E. Mr. Abdelilah Benryane
Ambassador and Permanent Representative
(Morocco)

PHOTOS:

1. Bird's eye view of the Ministerial Consultations in session © IISD/Earth Negotiations Bulletin
2. Since 2007, UN staff and members of the Committee of Permanent Representatives in Nairobi organize annual friendly cricket matches. Pictured here are the 2009 "One UN" and CPR teams.
© UNEP

MEMBERS OF THE GOVERNING COUNCIL OF THE UNITED NATIONS ENVIRONMENT
PROGRAMME FOR THE PERIOD 2010–2013

Breakdown by alphabetical order (indicating terms of office)

Antigua and Barbuda **	Japan **
Argentina **	Kazakhstan *
Australia **	Kenya **
Bahamas *	Lesotho **
Bangladesh *	Malaysia **
Belgium **	Mali *
Benin *	Mauritania **
Brazil **	Mauritius *
Canada **	Mexico *
Central African Republic **	Monaco *
China **	Mozambique **
Colombia *	Netherlands *
Congo *	Niger *
Costa Rica *	Pakistan **
Croatia *	Republic of Korea **
Cuba *	Romania **
Czech Republic **	Russian Federation **
Fiji *	Saudi Arabia *
Finland *	Serbia *
France **	Somalia *
Gabon **	Spain *
Germany **	Switzerland **
Guinea *	Trinidad and Tobago **
Hungary ***	Tunisia *
India *	Tuvalu *
Indonesia **	United Republic of Tanzania **
Iran (Islamic Republic of) *	United States of America **
Israel *	Uruguay **
Italy *	Zambia **

* Members whose terms expire on 31 December 2011.

** Members whose terms expire on 31 December 2013.

*** On 3 November 2009, the General Assembly, acting on a request from the representative of Belarus to the United Nations (A/64/297) contained in a letter of 12 August 2009 announcing that his country would relinquish its seat on the Governing Council for the remainder of its term in favour of Hungary, elected Hungary, as endorsed by the Eastern European States to the Governing Council, for a two-year term beginning on 1 January 2010 and expiring on 31 December 2011.





UNEP+

IMPLEMENTING A TRANSFORMATIONAL AGENDA



In 2009, UNEP prepared and presented, to its Governing Council and the UN General Assembly, the Programme of Work for the biennium 2010-2011.

In what by UN standards can be considered a transformational approach to programme delivery, UNEP will leverage the critical mass of expertise in its functional divisions in service of the six crosscutting thematic sub-programmes identified in the Medium-Term Strategy 2010-2013.

By adopting a results-based matrix management approach to programme delivery, UNEP seeks to break the silos endemic to UN programming and budgeting processes thereby maximizing the use of scarce resources in service to the whole programme.

In giving the green light to the new Programme of Work, Member States sent a strong signal that “business as usual”

was not an option, while recognizing the risks associated with a change of this nature.

Building on a foundation of over 35 years of active engagement in the science, politics and day-to-day reality of environmental change, UNEP examined, indeed challenged, all of its products and services for their *relevance* and *results*: from the Medium-Term Strategy to the activities and processes planned to deliver the results in the Programme of Work for 2010-2011 (See box on opposite page).

In the course of the year, UNEP enhanced programme and project design capabilities and strengthened corresponding review, approval, monitoring and evaluation mechanisms. It is also testing ways to improve the overall impact by harnessing the strengths of different parts of the organization towards a common objective. In recognition of the growing role of regional offices in the delivery of the Programme of Work, UNEP moved to augment its strategic presence across the six regions.

UNEP must also forge new and deeper partnerships if it is to catalyse wider change within the UN system and beyond. In 2009, a new policy on partnerships was developed and from 2010, UNEP will measure its progress in this regard. The new Resource Mobilization Strategy coordinates the roles and responsibilities of different parts of the organization to leverage new and additional resources for an expanding Programme of Work. UNEP is also putting in place the necessary building blocks for a meaningful Accountability Framework.

PHOTOS:

1. Chambered Nautilus
© Lester Lefkowitz/Corbis
2. UNEP Deputy Executive
Director Angela Cropper
© Lee Jin-man/Pool/
Reuters

To achieve the cultural and practical changes required of effective matrix management, UNEP has taken steps to align its operational and human resources with planned results. It has implemented a rigorous capacity development effort and commissioned the development of a monitoring system to gauge progress towards results and enable corrective actions where necessary. In 2009, UNEP management approved a new Evaluation Policy, and strengthened the independence of this function.

While this ambitious transformational agenda may not meet each and every expectation in the time the organization has set itself, UNEP will persevere in its efforts to bring about a new culture of innovative thinking, planning ahead, making the best use of resources, and taking the time for corrective reflection.

“Preparing for a new way of doing business in line with the Programme of Work 2010-2011 was a true UNEP-wide effort, with all parts of the organization pulling together to achieve a common set of results.”
— Angela Cropper, UNEP Deputy Executive Director



Aligning UNEP's Processes

Aligning UNEP's processes to the objectives of the Medium-Term Strategy and a results-based Programme of Work took centre stage in 2009. Modifying these processes in support of UNEP's transformational agenda will continue throughout the biennium 2010-2011:

1. Designing projects and activities to deliver results
2. Roles and responsibilities
3. Human resource alignment, recruitment and management processes
4. Internal capacity development, training and communications
5. Partnerships
6. Resource mobilization
7. Performance evaluations and accountability framework
8. Monitoring plan
9. Project information management system
10. Programme evaluation
11. Capacity development of UNEP's project stakeholders
12. Financial management
13. Utilizing the services of UNEP Regional Offices
14. Coordinating UNEP's work at the country level
15. Use of science
16. Knowledge management
17. Results-based management

UNEP PROGRAMME OF WORK 2010-2011

AT A GLANCE

In its decision 25/13, UNEP Governing Council approved the 2010-2011 biennial programme of work and support budgets divided among six thematic sub-programmes: climate change; disaster and conflicts; ecosystem management; environmental governance; harmful substances and hazardous waste; and resource efficiency and sustainable production and consumption. Below is a brief overview of the six sub-programmes.



CLIMATE CHANGE

Objective

To strengthen the ability of countries, in particular developing countries, to integrate climate change responses into national development processes.

Expected accomplishments:

(a) Adaptation, planning, financing and cost-effective preventive actions are increasingly incorporated into national development processes that are supported by scientific information, integrated climate impact assessments and local climate data.

(b) Countries make sound policy, technology, and investment choices that lead to a reduction in greenhouse gas emissions and potential co-benefits, with a focus on clean and renewable energy sources, energy efficiency and energy conservation.

(c) Improved technologies are deployed and obsolescent technologies phased out, through financing from private and public sources including the Clean Development Mechanism and the Joint Implementation Mechanism of the Kyoto Protocol.

(d) Increased carbon sequestration occurs through improved land use, reduced deforestation and reduced land degradation.

(e) National-level policy makers and negotiators, civil society and the private sector have access to relevant climate change science and information for decision making.



DISASTERS AND CONFLICTS

Objective

To minimize environmental threats to human well-being from the environmental causes and consequences of existing and potential natural and man-made disasters.

Expected accomplishments:

(a) Capacity of member States for environmental management in order to contribute to natural and planned disaster risk reduction is enhanced.

(b) Rapid and reliable environmental assessments following conflicts and disasters are performed as requested.

(c) The post-crisis assessment and recovery process contributes to improved environmental management and the sustainable use of natural resources.



ECOSYSTEM MANAGEMENT

Objective

To ensure that countries utilize the ecosystem approach to enhance human well-being.

Expected accomplishments:

- (a) The capacity of countries and regions to increasingly integrate an ecosystem management approach into development and planning processes is enhanced.
- (b) Countries and regions have capacity to utilize ecosystem management tools.
- (c) The capacity of countries and regions to realign their environmental programmes and financing to address degradation of selected priority ecosystem services is strengthened.



HARMFUL SUBSTANCES AND HAZARDOUS WASTE

Objective

To minimize the impact of harmful substances and hazardous waste on the environment and human beings.

Expected accomplishments:

- (a) The capacities and financing of States and other stakeholders to assess, manage and reduce risks to human health and the environment posed by chemicals and hazardous waste are increased.
- (b) Coherent international policy and technical advice is provided to States and other stakeholders for managing harmful chemicals and hazardous waste in a more environmentally sound manner, including through better technology and best practices.
- (c) Appropriate policy and control systems for harmful substances of global concern are developed and in place in line with States' international obligations and the mandates of relevant entities.



ENVIRONMENTAL GOVERNANCE

Objective

To ensure that environmental governance at the country, regional and global levels is strengthened to address agreed environmental priorities.

Expected accomplishments:

- (a) 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.
- (b) The capacity of States to implement their environmental obligations and achieve their environmental priority goals, targets and objectives through strengthened laws and institutions is enhanced.
- (c) National development processes and United Nations common country programming processes increasingly mainstream environmental sustainability in the implementation of their programmes of work.
- (d) Access by national and international stakeholders to sound science and policy advice for decision making is improved.



RESOURCE EFFICIENCY AND SUSTAINABLE CONSUMPTION AND PRODUCTION

Objective

To ensure natural resources are produced, processed and consumed in a more environmentally sustainable way.

Expected accomplishments:

- (a) Resource efficiency is increased and pollution is reduced over product life cycles and along supply chains.
- (b) Investment in efficient, clean and safe industrial production methods through public policies and private sector action is increased.
- (c) Consumer choice favours more resource-efficient and environmentally friendly products.



A BAOBAB FOR EVERY ACHIEVEMENT



Launched in 2007, the UNEP Baobab Staff Award programme seeks to recognize and reward exceptional performance and dedication to achieving the goals of UNEP. The second edition of the Baobab Staff Award was a true success. It saw more winners from more duty stations and divisions across UNEP. It also saw more nominations and more votes cast across the organization. The 2008 Baobab Award winners, recognized at the Awards Ceremony which took place on 16 March 2009, are:

Support Service Award

– Sarah Muchiri

Managerial Service Award

– Mark Radka

Environmental Service Award

– Fatoumata Keita Ouane

Team Award

– Charles Sebukeera

– Ashbindu Singh

Professional Service Award

– Christopher Corbin

UNEP STAFF DEVELOPMENT

In the area of human resources management, UNEP in 2009 for the first time exceeded the 50/50 gender balance goal of the United Nations, with women making up 60 per cent of the workforce. It also continued investing in staff development, with 500 staff trained in results-based management, and 700 staff participating in the staff survey and 360 Degree Feedback for managers. The Baobab Staff Awards for 2008 were presented, and 47 staff members participated in the first UNEP Pilot Rotation Programme.

DEWA

DELG

DTIE

Division of Early Warning and Assessment

P. Gilruth
M. Cheatle

- Office of Chief Scientist
- Scientific Assessment
- Early Warning Branch
- Regional Coordination
- UNEP–World Conservation Monitoring Centre
- United Nations Scientific Committee on the Effects of Atomic Radiation

Division of Environmental Law and Conventions

B. Kante

- Inter-linkages and Synergies
- Chemicals and Waste Law and Governance
- Climate and Energy Law and Governance
- Biodiversity and Land Law and Governance
- Freshwater and Marine Law and Governance

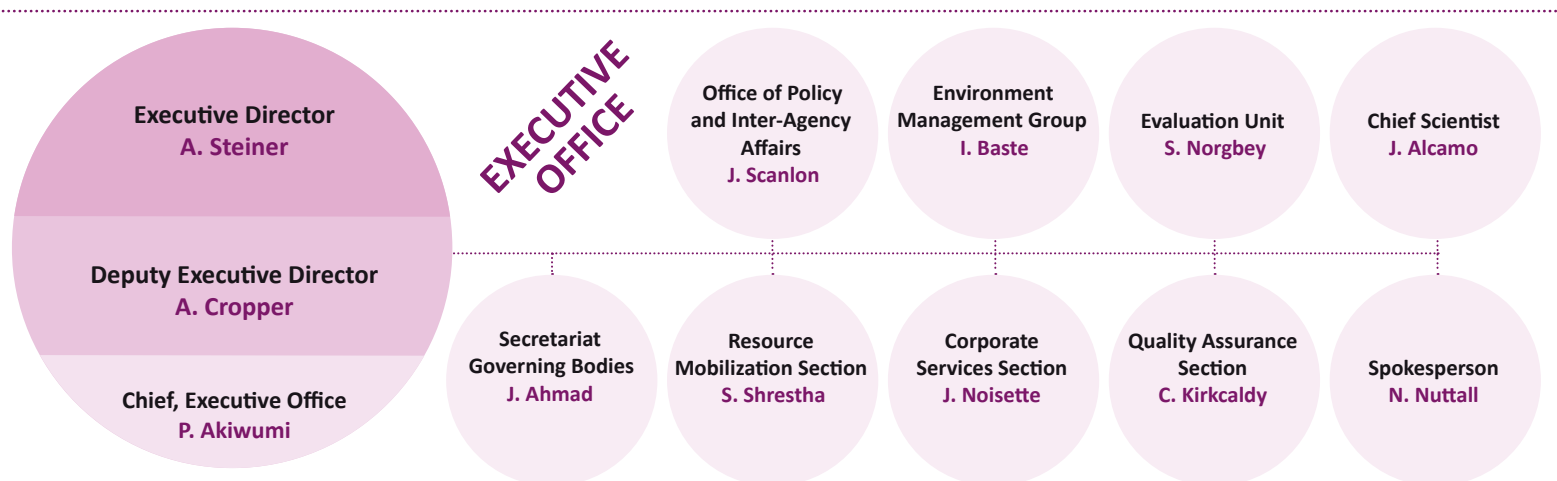
Division of Technology, Industry and Economics

S. Lemmet
K. Bouzar

- Sustainable Consumption and Production
- Energy
- International Environmental Technology Centre (Japan)
- Chemicals
- Economics and Trade
- OzonAction
- Urban Unit

PHOTO:

1. Winners and finalists of the 2008 Baobab Staff Award.
© UNEP



Division of Regional Cooperation
A. Cropper (Officer-in-Charge)
 C. Tavera

Regional Offices

- Africa – *Nairobi*
- Asia and the Pacific – *Bangkok*
- Europe – *Geneva*
- Latin America and the Caribbean – *Panama City*
- North America – *Washington DC*
- West Asia – *Manama*

Liaison Offices

New York
 Addis Ababa
 Brussels
 Cairo

Country Offices

Moscow
 Beijing
 Brasilia

- Major Groups and Stakeholders
- UNEP / UNDP Poverty and Environment Facility

Division of Environmental Policy Implementation
I. Thiaw
 T. Kasten

- Coastal and Marine
- Freshwater and Terrestrial Ecosystems
- Climate Change Adaptation
- Ecosystem Services
- Conflict and Disaster Management
- Environmental Education Training
- Programme Planning

Division of Communication and Public Information
S. Bindra
 N. Poulton

- Media
- Speech-writing and Editing
- Internet
- Publishing
- Audio-Visual
- Library
- Special Events
- Billion Tree Campaign
- Children, Youth, Sports and Environment

Division of GEF Coordination
M. Niamir-Fuller
 A. Juras

- Biodiversity / Land Degradation
- International Waters
- Climate Change
- Persistent Organic Pollutants/Ozone
- Fund Management Group
- Scientific and Technical Advisory Panel

Secretariat of the Basel Convention (SBC)
K. Kummer-Peiry

Secretariat of the Convention on Biological Diversity (CBD)
A. Djoghlaif

Secretariat of the Convention on International Trade in Endangered Species (CITES)
W. Wijnstekers

Secretariat of the Convention on Migratory Species (CMS)
E. Mrema

Secretariat of the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer
M. Gonzalez

Secretariat of the Multilateral Fund for the Implementation of Montreal Protocol (MFS)
M. Nolan

Interim Secretariat of the Rotterdam Convention on PIC, together with FAO
D. Cooper

Interim Secretariat of the Stockholm Convention on Persistent Organic Pollutants
D. Cooper

FACT
A total of \$570.5 million has been mobilized for the 2008-2009 biennium.

In 2009, UNEP enjoyed a growing donor confidence, with several countries increasing their funding, and new countries contributing to the Environment Fund. The trend is also for more and more countries to give a larger share of their support to the Environment Fund instead of to earmarked projects, consistent with the direction of the Medium-Term Strategy and the new Resource Mobilization Strategy.

Despite the global financial crisis, UNEP funding increased significantly throughout the 2008-2009 biennium, bringing the resources available to a total of \$570.5 million in support of its Programme of Work. This reflects not only the heightened confidence in UNEP but also the growing environmental pressures faced by the international community and the need for effective international cooperation.

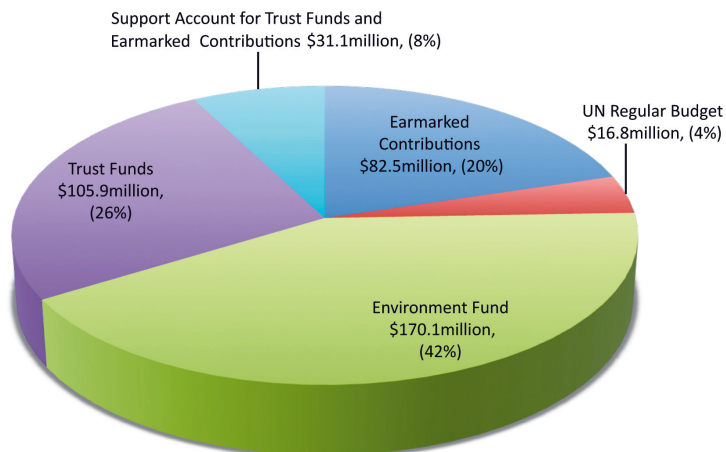
UNEP FUNDING IN 2009

UNEP made efforts to increase contributions to the Environment Fund both in terms of amounts and the number of Member States contributing. Ninety-eight countries pledged to the Environment Fund as at 31 December 2009, up from 92 that pledged at the same time a year ago. Contributions continue to arrive, bringing the estimated total number of donors contributing for 2009 to over 100 countries. Environment Fund contributions between 2006-2007 and 2008-2009 grew by over 22 per cent, while extra-budgetary contributions increased by over 50 per cent in the same period. Two donors — Netherlands and Belgium — have taken the lead in making all their contributions to the Environment Fund.

The twenty-fifth session of the Governing Council approved the supplementary programme and budget of \$24 million, bringing the total Environment Fund budget for 2008-2009 to \$171 million and authorizing the Executive Director to increase the Financial Reserve by \$5 million. For the 2010-2011 biennium, the Governing Council approved an Environment Fund budget of \$180 million. UNEP has completed the Voluntary Indicative Scale of Contributions and invited governments to consider enhancing their contributions.

Given UNEP's heavy reliance on extra-budgetary funds, early contributions are key for timely delivery of the Programme of Work. In the coming biennium, UNEP will also promote a gradual move towards a Multi-year Multi-donor Trust Fund for each of the six sub-programmes and a uniform programme support cost.

UNEP CLAIMS ON RESOURCES 2008-2009

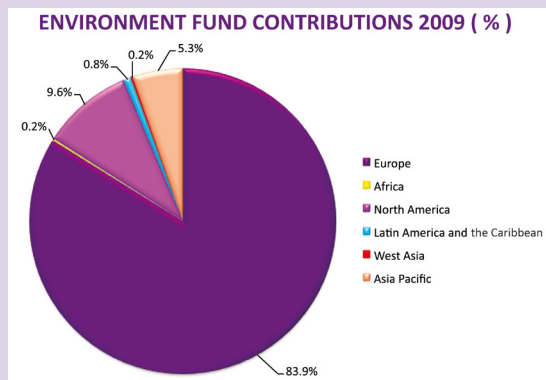


ENVIRONMENT FUND CONTRIBUTIONS IN 2009 *

COUNTRY	2009 PLEDGES	COUNTRY	2009 PLEDGES	COUNTRY	2009 PLEDGES
Algeria	10,000	Japan	2,963,807	Pakistan	9,884
Andorra	39,681	Kenya	30,000	Panama	10,000
Angola	1,200	Korea (Republic of)	193,041	Philippines	1,333
Armenia	1,300	Kuwait	200,000	Poland	150,000
Australia	674,974	Kyrgyzstan	760	Portugal	50,000
Austria	524,000	Lao PDR	2,000	Romania	52,000
Bahamas	2,500	Latvia	13,500	Russian Federation	500,000
Bangladesh	574	Liechtenstein	7,600	Samoa	760
Belarus	12,500	Lithuania	14,000	Senegal	2,000
Belgium	5,471,134	Luxembourg	878,800	Seychelles	1,200
Bhutan	1,450	Madagascar	1,000	Sierra Leone	760
Brazil	227,500	Malawi	760	Singapore	15,000
Burkina Faso	6,837	Malaysia	40,000	Slovak Republic	46,000
Canada	2,400,000	Mali	1,500	Slovenia	72,000
Chile	20,000	Malta	13,000	South Africa	54,000
China	250,000	Mauritania	1,500	Spain	4,301,088
Colombia	30,000	Mauritius	5,000	Suriname	760
Comoros	760	Mexico	350,000	Sweden	3,900,000
Costa Rica	10,000	Micronesia	600	Switzerland	3,850,541
Croatia	33,000	Moldova	900	Tajikistan	310
Cyprus	33,500	Monaco	28,053	Thailand	22,164
Czech Republic	222,197	Montenegro	1,000	Tunisia	7,500
Denmark	3,906,250	Mozambique	760	Turkey	250,000
Ecuador	3,200	Myanmar	1,000	Uganda	1,600
Egypt	20,000	Netherlands	12,731,000	United Kingdom	8,452,963
El Salvador	3,200	New Zealand	195,000	United States	5,825,050
Eritrea	900	Niger	760	Venezuela	40,000
Ethiopia	1,000	Norway	3,000,000	Zambia	2,167
Fiji	4,480	Oman	10,000	TOTAL IN USD	85,555,606

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REGIONAL CONTRIBUTIONS TO THE ENVIRONMENT FUND IN 2009



* countries that paid/pledged for 2009 as at 31 December 2009; non-US dollar pledges may be affected by fluctuations in exchange rates

ENVIRONMENT FUND: TOP 15 DONORS PLEDGING IN 2009 *

COUNTRY	2009	COUNTRY	2009
1. Netherlands	12,731,000	9. Spain	4,301,088
2. UK	8,452,963	10. Denmark	3,906,250
3. Germany	7,884,740	11. Sweden	3,900,000
4. USA	5,825,050	12. Switzerland	3,850,541
5. Belgium	5,471,134	13. Norway	3,000,000
6. France	5,100,000	14. Japan	2,963,807
7. Finland	4,876,280	15. Canada	2,400,000
8. Italy	4,518,072	TOTAL IN USD	79,180,925

* non-US dollar pledges may be affected by fluctuations in exchange rates

In addition to contributions to the Environment Fund, UNEP has received generous support from its donors to its Trust Funds in the amount of \$208.4 million and \$118.7 million through Earmarked Contributions, among which the two single largest contributions were Norway (\$38 million) and Spain (\$20 million).

“Results from a voluntary indicative scale of non-earmarked contributions, tested on a pilot basis since 2003, yielded in the early years significant increases in both the number of donors and the total funds available.”

**— 2009 Norway
Synthesis of
Evaluations of
Environmental
Development
Assistance by
Multilateral
Organizations**

ENVIRONMENT FUND: COUNTRIES INCREASING PLEDGES FROM 2008 TO 2009 *

COUNTRIES INCREASING PLEDGES FROM 2008 TO 2009			
COUNTRY	2008 (A)	2009 (B)	Increase (B-A)
Belgium	909,586	5,471,134	4,561,548
Burkina Faso	5,075	6,837	1,762
Denmark	3,227,083	3,906,250	679,167
Finland	4,078,762	4,876,280	797,518
Eritrea	0	900	900
Iraq	0	2,300	2,300
Ireland	406,394	456,956	50,562
Israel	0	20,000	20,000
Lebanon	0	6,000	6,000
Malawi	0	760	760
Mali	0	1,500	1,500
Mauritania	0	1,500	1,500
Micronesia	0	600	600
Moldova	0	900	900
Monaco	22,930	28,053	5,123
Myanmar	0	1,000	1,000
Netherlands	12,532,000	12,731,000	199,000
Norway	2,886,740	3,000,000	113,260
Samoa	0	760	760
Singapore	0	15,000	15,000
Suriname	760	900	140
Switzerland	3,780,074	3,850,541	70,467
USA	5,800,000	5,825,050	25,050
Venezuela	0	40,000	40,000
Zambia	2,000	2,167	167
TOTAL IN USD			6,594,984

* non-US dollar pledges may be affected by fluctuations in exchange rates



GLOSSARY

PHOTO:

1. Glasses on a dictionary focusing on the word visionary.
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10-YFP	10-Year Framework of Programmes on Sustainable Consumption and Production
ACAD	Africa Carbon Asset Development Facility
ARRI	Appalachian Regional Restoration Initiative
ASEAN	Association of Southeast Asian Nations
B4E	Business for the Environment Global Summit
CASCADE	Carbon Finance for Agriculture, Silviculture, Conservation and Action against Deforestation Initiative
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CFCs	chlorofluorocarbons
CFLs	compact fluorescent lamps
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DRC	Democratic Republic of the Congo
EC	European Commission
ENVSEC	Environment and Security Initiative
ExCOPs	Extraordinary Meetings of the Conferences of the Parties
FAO	Food and Agriculture Organization of the United Nations
G20	Group of Twenty
GC/GMEF	UNEP Governing Council/Global Ministerial Environment Forum
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEI	Green Economy Initiative
GEMS/Water	UNEP Global Environment Monitoring System / Water
GEO	Global Environment Outlook
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
GPNM	Global Partnership for Nutrient Management
GRASP	Great Apes Survival Partnership
GRULAC	Group of Latin America and Caribbean Countries
HCFC	hydrochlorofluorocarbons

ICCM	International Conference on Chemicals Management
IEG	International Environmental Governance
IETC	International Environmental Technology Centre
ILO	International Labour Organization
IOM	International Organization for Migration
IPBES	Intergovernmental Panel or Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IUCN	International Union for Conservation of Nature
MDGs	Millennium Development Goals
MEA	Multilateral Environmental Agreement
MoU	Memorandum of Understanding
OARE	Online Access to Research in the Environment
OECD	Organisation for Economic Co-operation and Development
PCFV	Partnership for Clean Fuels and Vehicles
PEI	UNEP-UNDP Poverty and Environment Initiative
RECP	UNEP-UNIDO Resource Efficient and Cleaner Production Programme
REDD	Reduced Emissions from Deforestation and forest Degradation
SCP	Sustainable Consumption and Production
TEEB	The Economics of Ecosystems and Biodiversity
UNCCD	United Nations Convention to Combat Desertification
UNDAF	United Nations Development Assistance Framework
UNDG	United Nations Development Group
UNDP	United Nations Development Programme
UNEP FI	UNEP Finance Initiative
UNEP SBICI	UNEP Sustainable Buildings and Climate Initiative
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP-World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNWTO	World Tourism Organization
WFP	United Nations World Food Programme
WHO	World Health Organization
WioLAB	Addressing Land-based Activities in the Western Indian Ocean project
WTO	World Trade Organization



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