



UNITED NATIONS ENVIRONMENT PROGRAMME
ANNUAL REPORT 2014



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- * The term 'one billion' in this report refers to one thousand million.

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A MESSAGE FROM THE UNITED NATIONS SECRETARY-GENERAL



We stand at a crucial crossroads in history. In 2015, the world faces the twin challenge of finalizing the post-2015 sustainable development agenda and reaching a new meaningful climate agreement. The United Nations Environment Programme (UNEP) is playing a key role in both of these processes by highlighting emerging science and supporting countries in the transition to greener, more inclusive economies.

As Member States prepare to submit their Intended Nationally Determined Contributions and shape their negotiating positions ahead of the Paris climate meeting in December, UNEP's latest Emissions Gap Report can provide useful guidance. The 2014 Gap Report clearly laid out the emission cuts required to limit global temperature rise to 2°C.

In addition, UNEP's Adaptation Gap Report showed the need for much greater efforts on, and financing for, climate adaptation, especially for the most vulnerable and least developed countries.

UNEP's work on demonstrating that ecosystems are a key driver of economic growth should also factor into the evolving sustainable development agenda. Many countries have taken this important message on board, and have requested that UNEP support their efforts to incorporate the value of ecosystems into national planning and growth tracking.

This annual report showcases many more successes. It highlights developments of global significance, including the news that the ozone layer is recovering thanks to the Montreal Protocol and growing support for the Minamata Convention on mercury. And it documents local initiatives, such as building climate resilient communities in Afghanistan and enabling sustainable consumption and production practices in Indian factories.

UNEP is thriving under the expanded responsibilities, which were granted to it in Rio in 2012 by universal membership, and by the first-ever United Nations Environment Assembly held in June 2014.

In 2015, I expect nations to commit to building a sustainable, resilient and inclusive future, one that provides for the well-being of both people and the planet. When they do, an ever-stronger UNEP will be there to support them every step of the way.

A handwritten signature in black ink that reads "Ki-moon Ban". The signature is written in a cursive, flowing style.

Ban Ki-moon
February 2015

2014 HIGHLIGHTS



Annual reports always trigger a moment of reflection, which from an environmental and planetary perspective highlights the dual sentiments of “we worked so hard” and “so much remains to be done”. Yes, we face a myriad of challenges today: climate change, ecosystem degradation, unsustainable consumption and production patterns, air pollution, and many more. But as this Annual Report shows, thanks to the work of UNEP embedded in a global community of committed partners and actors, these issues and their solutions are now at the forefront of discourse and policy action—undoubtedly significant progress on years gone by.

The fact that the first-ever United Nations Environment Assembly (UNEA) took place in June 2014—elevating the environment alongside peace, security, finance and health—demonstrates just how relevant environmental issues have become, both globally and in the daily lives of ordinary people. When the world came together for UNEA at UNEP’s headquarters in Nairobi, it added fresh impetus to efforts to chart a global course forward: one that recognizes environmental sustainability as a fundamental element of the post-2015 sustainable development agenda, as can be seen in the draft Sustainable Development Goals; one that acknowledges the imperative of acting decisively on reducing greenhouse gas emissions; one that turns the incontrovertible science on environmental concerns into policies that could systematically and decisively alter the way we cooperate in managing our planet.

We know the scale of the task ahead, but the outcomes of the first gathering of UNEA and many other encouraging signs at international, national and regional levels show the world is responding. Take climate change, for example. A range of actions are already underway to mitigate climate change; for example, UNEP is leading the charge on increased energy efficiency—which

can save billions of tonnes of CO₂ each year, through partnerships such as en.lighten and the Global Fuel Economy Initiative. Then we have the announcement of major economies planning to work together in scaling up efforts to tackle emissions. This move by two major economies sent a welcome signal to the rest of the world and raised hopes for a strong agreement on climate action in Paris later this year—an agreement that can be guided by UNEP's Emissions Gap Report 2014, which laid out a roadmap of emissions cuts, and the Adaptation Gap Report, which showed that climate change adaptation costs are likely to reach \$300 billion per year by 2050, even with strong emissions cuts.

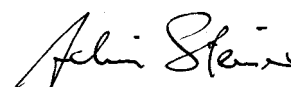
Or consider the encouraging global progress made in ensuring nations take account of the many benefits that ecosystems provide to humanity. After playing a key role in many global initiatives to raise awareness of the need to value nature over the last decade, UNEP now works with a record 58 countries to factor natural capital into their development plans. Another sign of the growing awareness of the need to conserve ecosystems and biodiversity came from the news that 15.4 per cent of terrestrial and inland water areas and 3.4 per cent of the global ocean are now designated as protected areas.

This report showcases many more successes—from 128 countries signing the Minamata Convention on mercury, to financial markets showing increasing commitment to incorporating environmental risks into investments, to the Partnership for Clean Fuels and Vehicles catalyzing global action to the point where only three countries still use leaded petrol. We also have the UN-REDD Programme growing in reach, with 60 partner countries representing an all-time high in country requests for UNEP support.

However, one particularly outstanding result demonstrates more than any other what humanity is capable of when nations reconcile

their different needs and act as one on a global challenge. In September, the Scientific Assessment of Ozone Depletion 2014, a report by UNEP and the World Meteorological Organization, confirmed that the ozone layer is healing and will return to pre-1980 levels by mid-century, thanks to actions taken by Member States under the UNEP-hosted Montreal Protocol, to phase out ozone-depleting substances. The international community has carried out a repair job on a planetary scale—one that cost far less than expected, and actually saved money in terms of health-care costs from avoided skin cancer and cataract cases.

Yes, there is a long road ahead to a sustainable future, but we must not allow ourselves to be intimidated by the scale of the task or discouraged by seemingly slow progress. After all, the world is a complex place, both in terms of natural systems and human interaction, and therefore the process of change itself is equally complex. The success of the Montreal Protocol shows that when the world acts as one, as it is doing now on so many issues and aiming to do on so many more, results will come—even though they may take decades to show. Fundamentally, the environment is a long-term investment, one that brings longer-term gains that benefit all of humanity for centuries to come. None of our work would be possible without the generous support and investment in the environment by our partners, to whom we are grateful for the unflagging support. We at UNEP are in it for the long haul. Join us in our work, and ensure that everybody reaps the eventual rewards.



Achim Steiner
February 2015



UNEP'S YEAR IN BRIEF

CLIMATE CHANGE



The Adaptation Gap Report found that climate change adaptation efforts must be ramped up, as costs could reach **\$300 billion** per year by 2050. UNEP is supporting 24 countries to implement National Adaptation Programmes of Action, with a further 7 in the pipeline.

The Renewables 2014 Global Status Report revealed that renewables made up over **56 per cent** of net additions to global power capacity in 2013, and now account for **22 per cent** of final electricity power production.

UNEP and partners launched the Efficient Appliances and Equipment Partnership to drive a worldwide shift to energy-efficient appliances and equipment, which could reduce global electricity consumption by more than **10 per cent** and save **\$350 billion** per year.

100 members of Climate and Clean Air Coalition made progress toward goal of reducing global warming by **0.6°C** by 2050 – for example, Bangladesh banned dirty brick kilns and Mexico adopted proposals on stringent heavy-duty vehicle emissions standards.

ECOSYSTEM MANAGEMENT



58 countries worked with UNEP on the valuation of ecosystem services and natural capital accounting.

The Protected Planet report found that **15.4 per cent** of terrestrial and inland water areas and **3.4 per cent** of the global ocean are now protected, with **6.1 million km²** of area added since 2010.

The Global Biodiversity Outlook 4 report showed that more needs to be done to protect biodiversity: 5 of Aichi Biodiversity Targets are on track, 33 are progressing slowly, 10 have not improved, and 5 are worsening.

Global Forest Watch, a dynamic online forest monitoring and alert system, was launched with partners such as the World Resources Institute to slow deforestation that saw **2.2 million km²** of tree cover lost between 2000 and 2012.

DISASTERS AND CONFLICTS



UNEP continued to deliver multi-million dollar environmental recovery programmes in 5 countries, including climate resilience and water management projects in Afghanistan.

UNEP minimized environmental risks related to the transport and destruction of over **700 tonnes** of chemical weapon materials from Syria.

The Joint Environment Unit (JEU) assisted in the removal of **26 tonnes** of corroded ammonia containers in Madagascar.

UNEP outlined a **\$56.2 million** environmental recovery and reconstruction plan for the Balkan floods, which killed dozens and displaced over 100,000 in Serbia, Croatia and Bosnia-Herzegovina.

CHEMICALS AND WASTE



The Scientific Assessment of Ozone Depletion 2014 report showed that the ozone layer will recover to pre-1980 levels by mid-century thanks to the Montreal Protocol phase-out of 98 per cent of ozone-depleting substances—which will prevent millions of cases of skin cancer and cataracts.

128 parties have now signed the Minamata Convention, aimed at phasing out the neurotoxin mercury to protect human health and ecosystems, and 9 have ratified it.

A total of 43 countries have now confirmed legally binding measures on lead paints— more than halfway to the interim 2015 target of 70 countries.

\$44.5 million has been mobilized to implement activities in over 100 countries under the Strategic Approach to International Chemicals Management, including in Mozambique where the registration of 79 hazardous pesticides was cancelled.

Transformative efforts show that the will to change the way humanity manages the environment, which UNEP has spent over four decades fostering, is now clear and present.

ENVIRONMENTAL GOVERNANCE



Over 1,000 people, including 157 national delegations, participated in the first-ever United Nations Environment Assembly—which handed stronger mandates to UNEP on issues such as air pollution that claims 7 million lives each year.

UNEP played a key role in supporting and informing the drafting of the 17 Sustainable Development Goals, with the environment now embedded across the post-2015 sustainable development agenda.

The Environmental Crime Crisis report found that global environmental crime is worth up to **\$213 billion** each year, while CITES research revealed over 20,000 African elephants were poached in 2013. However, China crushed 6.2 tonnes of confiscated elephant ivory and carved products in January 2014, the first such action by this major destination country for illegal ivory and rhino horn.

The Poverty-Environment Initiative (PEI) provided support to 28 countries for the integration of pro-poor, environmental sustainability objectives into policies, plans and budgets.

RESOURCE EFFICIENCY



65 countries have now embarked on green economy and related strategies—including Mongolia, which in June 2014 launched its Green Development Strategy one year after joining the Partnership for Action on Green Economy.

The 10YFP launched its Sustainable Public Procurement, Consumer Information, Sustainable Tourism, and Sustainable Lifestyles and Education Programmes—engaging 143 governments, non-governmental organizations and business associations.

The UNEP Finance Initiative coordinated investors to form the Portfolio Decarbonization Coalition, which aims to decarbonize \$100 billion of investments by December 2015.

UNEP launched the Inquiry into the Design of a Sustainable Financial System to better align the financial system to sustainable development and mobilize trillions of dollars to green investments.

ENVIRONMENT UNDER REVIEW



UNEP launched UNEP Live, a knowledge platform that has near-time, spatial and other data from across the globe, including datasets from over 150 national sources. UNEP Live will support assessment and reporting processes, and integrated decision-making.

The GEO SIDS Outlook laid out options for vulnerable Small Island Developing States, where almost **30 per cent** of populations live in areas less than 5 metres above sea level, to adapt to the impacts of climate change.

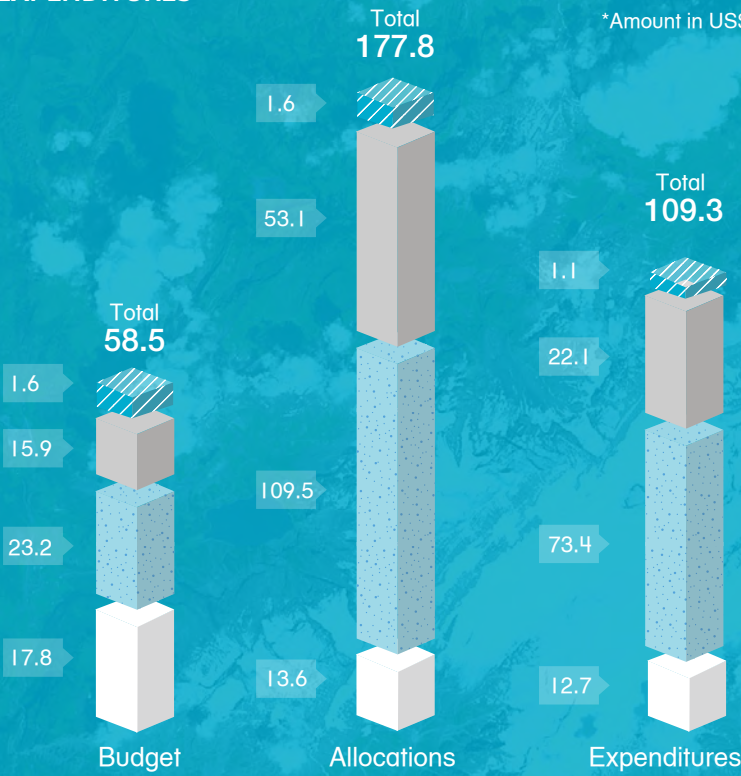
The Year Book and Valuing Plastic reports outlined the danger posed by plastic pollution in the ocean, showing that the financial damage of plastics to marine ecosystems is at least **\$13 billion** per year.

The UNEP Year Book examined other emerging issues, including nitrogen use in agriculture. A **20 per cent** improvement in global nutrient use efficiency by 2020 could save up to **\$400 billion** per year via improvements in human health, climate and biodiversity.

Iridescent shades of peacock blue and emerald green decorate the South Atlantic Ocean off the coast of Argentina. The Moderate Resolution Imaging Spectroradiometer (MODIS) on NASA's Terra satellite captured this image.

2014 EXPENDITURES

*Amount in US\$ Millions



Note: Figures are preliminary as the final year figures are pending audited financial statements

CLIMATE CHANGE

Minimizing the Scale and Impact of Climate Change

The latest assessment by the UNEP and World Meteorological Organization-supported Intergovernmental Panel on Climate Change (IPCC), released in late 2014, concluded that climate change is already affecting many communities, with far greater impacts to come. Mean average surface temperature rose by 0.89°C from 1901 to 2012, and global average temperatures will likely rise by another 0.3°C to 0.7°C in the period 2016-2035. This changing climate will affect sustainable development in many different ways, from impacts on economic growth to food security. Shifting weather patterns, for example, threaten food production through increased unpredictability of rainfall, rising sea levels will have a range of impacts on coastal environments and infrastructure; and extreme weather events, predicted to become more frequent and severe, can cause devastation.

UNEP assists governments, businesses and individuals to reduce emissions in an effort to minimize the pace and scale of climate change, and assists those nations and communities most likely to be affected to become more resilient to changing conditions.

Aletsch Glacier, the largest glacier of Europe, covers more than 120 km² (more than 45 square miles) in southern Switzerland.



01 An image from UNEP's Rising Seas exhibition shows villagers on Bangladesh's coast, which is threatened by sea-level rise and storm surges

02 A Chilean woman sits in her room lit by an energy-efficient bulb

03 Hot springs at Kenya's Olkaria IV geothermal field

Following the climate talks in Lima, 2015 will see parties to the United Nations Framework Convention on Climate Change (UNFCCC) work toward finalizing a strong climate agreement. UNEP's Emissions Gap Report 2014 and the latest IPCC assessment report were unequivocal that deep cuts in greenhouse gas emissions must be made to keep global temperature below 2° Celsius this century and head off the worst impacts of climate change. The roadmap of required cuts outlined in the Gap Report can guide this process.

However, more attention is needed on climate change adaptation, as impacts are already being felt. Least-Developed Countries and Small Island Developing States are particularly vulnerable. UNEP's Adaptation Gap Report unveiled the costs involved (see box) and highlighted the need for ambitious adaptation measures to safeguard hard-won development gains.

Adaptation costs by 2050 are likely to reach **\$300 billion** per year, even with emission cuts, with a smaller chance of **\$500 billion** per year. With no cuts, adaptation costs could be double these figures.

Adaptation efforts will be most effective if integrated into national development plans, which is why UNEP is supporting 21 countries to implement National Adaptation Programmes of Action, including China, Comoros and Rwanda.

Through these projects, over 1,000 people have been trained and 36 weather stations procured/installed. Another seven projects are in the pipeline. Equally, ecosystem-based adaptation (EbA) projects build community resilience and enhance ecosystem function.

The Microfinance for Ecosystem-based Adaptation project, for example, promotes income-generating activities in the Andean region of Colombia and Peru. Over 300 lending operations have been implemented, 800 small landholders informed on their options and 4 cooperation agreements signed.

Additionally, the Climate Technology Centre and Network (CTCN), part of the UNFCCC Technology Mechanism led by UNEP, promotes the accelerated development and transfer of climate technologies for adaptation and mitigation. During 2014, the CTCN responded to over 20 requests for technical assistance, such as providing guidance on photovoltaic solar cell design and manufacturing in Iran.

KEEPING CLIMATE CHANGE IN CHECK

The increased focus on adaptation does not mean mitigation efforts should be shirked, however, and UNEP works with partners to minimize the pace and scale of global warming.

The United Nations Collaborative Initiative on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD) is in full swing, now supporting 60 partner countries to receive results-based payments for reducing forest emissions and conserving and restoring forest carbon stocks (see feature on page 11 for an example). The UNEP-World Conservation Monitoring Centre (UNEP-WCMC) assists countries to prepare for and implement REDD+ actions. UNEP-WCMC works with countries on identification, mapping and economic analysis of areas suitable for REDD+ actions and the associated benefits. For example, the REDD-PAC project has contributed to mapping potential benefits in Peru and is working with partners in the Congo Basin and Brazil to explore the potential impacts on biodiversity of different REDD+ policies and

CLEANING UP THE BRICK INDUSTRY IN BANGLADESH AND PERU

Traditional brick production is a growing source of black carbon and other pollutants in developing countries. Yet cleaner alternatives can reduce emissions by up to **50 per cent**. Country partners of the CCAC Bricks Initiative, the only global initiative focusing on the brick production sector, took strides towards addressing emissions from the sector. Bangladesh, which produces an estimated **20 billion** bricks per year, told brick kiln operators to convert to clean technologies or face legal action. Peru, which has as many as 10,000 brick production facilities, developed a report on brick production policies, in cooperation with another CCAC partner, Swisscontact, and held an inaugural meeting of the Latin American Brick Kilns Advocacy Network.

Energy Efficiency Annual Results, ECOWAS Region



286.4
million USD
saved



4.8% 2.8 TWh
reduced electricity
consumption



1.2 million
tonnes
avoided CO₂
emissions



4 power plants
avoided

highlight links to other policy objectives, such as those of the Convention on Biological Diversity. The UN-REDD Programme now has 60 partner countries, representing an all-time high in country requests for UNEP support.

Also in 2014, the Climate and Clean Air Coalition (CCAC)—a 100-member partnership acting to reduce short-lived climate pollutants (SLCPs) including black carbon, methane, tropospheric ozone, and hydrofluorocarbons—grew in influence. The CCAC is working on 16 key measures, which if implemented by 2030 can reduce global warming by 0.6°C by 2050.

Many successes were recorded during 2014, including CCAC founding member Mexico, which integrated SLCPs into its Special Programme on Climate Change and adopted a proposal on heavy-duty vehicle emissions standards that will virtually eliminate fine particle emissions, including black carbon from diesel trucks.

Improving energy efficiency is another strand. UNEP's initiatives feed into the UN Secretary-General's Sustainable Energy for All (SE4All) initiative, which targets major renewable energy and energy efficiency improvements by 2030. A Global Energy Efficiency Accelerator Platform was launched under SE4All at the UN Climate Summit in September 2014. UNEP is co-leading the lighting, appliances, and district energy accelerators with private-sector partners, and is also a partner in the vehicle fuel efficiency accelerator. UNEP also manages the Energy

Efficiency Hub of SE4All, implemented through the new Copenhagen Centre for Energy Efficiency as part of the UNEP DTU Partnership. Significant savings lie in the transition to efficient electrical products. UNEP is supporting countries in leapfrogging to energy efficiency with the en.lighten initiative and a new partnership on appliances. For example, a global switch to efficient LED lighting would reduce global electricity consumption by over 1,500 terawatt-hours, equivalent to the combined annual electricity consumption of Brazil, Germany and the United Kingdom. Savings of almost 800 million tonnes of CO₂ would be realized annually.

By 2014, 66 developing and emerging countries had joined en.lighten and committed to phasing out inefficient incandescent lamps by the end of 2016. The initiative delivered lighting strategies in 30 of these countries in 2014. Building on en.lighten's public-private partnership model, UNEP is now targeting equipment such as air-conditioners, refrigerators and fans. The new Efficient Appliances and Equipment Global Partnership Programme, led by UNEP in collaboration with partners, supports 14 Southern African countries to develop a coordinated strategy for deploying efficient appliances. Five countries in Latin America have also joined.

“Between 2015 and 2030, energy efficiency improvements worldwide could avoid at least 2.5-3.3 Gt CO₂ annually.”

UNEP Emissions Gap Report 2014

In 2007, the Global Environment Facility-funded Joint Geophysical Image (JGI) methodology enabled Kenya to site wells at Olkaria IV geothermal field, many of which are highly productive. These wells have been connected to the recently commissioned 140 Olkaria 4 power plant and contributed to the current 573 MWe of power generated from geothermal resources. This has enabled the country to achieve about 50 per cent of its energy mix from geothermal resources.

Incorporating the JGI technology, which reduced the costs and risks of geothermal exploration and development, the UNEP ARGeo Project is providing technical assistance for the exploration of geothermal prospects in East Africa. In 2014, ARGeo supported the Silali field in Kenya and the Tendaho field in Ethiopia. These projects are expected to generate 200 MW in the next 2-3 years.



GEOHERMAL IN KENYA

Effective geothermal capacity: 1533 MW

Menengai project to add 105 MW by end 2015

2030 Target: 5000 MW (one third of all expected power)

UNEP supported Cape Town in a drive to encourage its residents to switch to solar water heaters. UNEP provided technical expertise for the programme, which includes a scheme permitting users to pay off the pricey equipment in instalments and benefit from savings on their electricity bill.



**SOLAR
WATER
HEATERS**



**3,918
HOUSEHOLDS**



**5,352 MWH
SAVED**



01

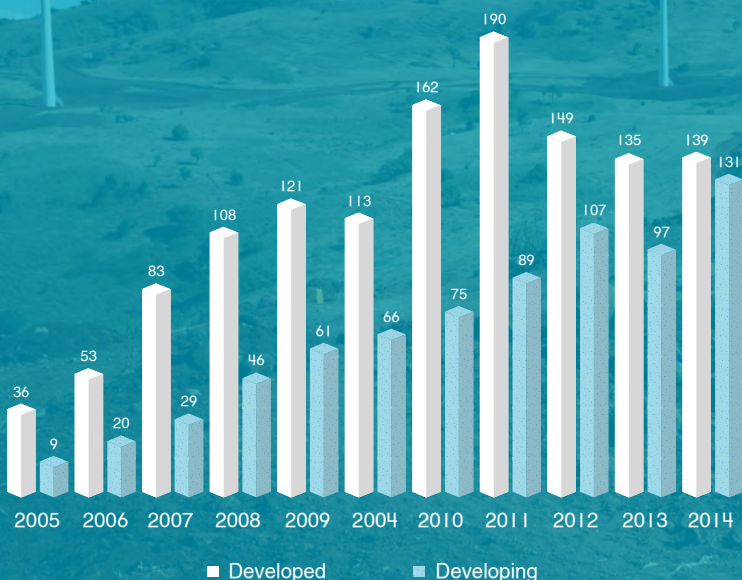
UNEP also works with leading organizations in the Global Fuel Economy Initiative (GFEI), which targets doubling global fuel efficiency to 4L/100km by 2030 (new cars) / 2050 (all cars). 2014 saw the first pilot countries—Mauritius and Chile—adopt diversified taxation systems to promote cleaner and more efficient vehicles, bringing improvements in the emissions of their fleets. Further progress is being achieved in sustainable transport. At the first Africa Sustainable Transport Forum, African nations agreed a roadmap to national policies on clean fuels, efficient vehicles and mass-transit systems. At the same time, The Partnership for Clean Fuels and Vehicles moved closer to eradicating lead in fuel, with three more countries going lead free. Only Yemen, Iraq and Algeria still use leaded petrol, and Algeria is due to go unleaded mid-2015. The campaign is also making progress on low-sulphur fuels, which reduce black carbon emissions to the atmosphere. The East African bloc moved to low-sulphur fuels, and many other countries are working on roadmaps.

THE RELENTLESS RISE OF RENEWABLES

In parallel with its energy efficiency efforts, UNEP supports the rapid uptake of renewables. Published annually, the REN21 Renewables Global Status Report is the most-referenced report on the renewable energy landscape. The 2014 report—as well as the Global Trends in Renewable Energy Investment 2014 report, produced in tandem with the Frankfurt School-UNEP Collaborating Centre and Bloomberg New Energy Finance—found an impressive uptake over the past decade, but called for more effort on renewable energy policy development in order to meet the SE4All goals. The Seed Capital Assistance Facility, implemented across Asia and Africa, is aiming to boost this process by offering investment fund managers support on small-scale clean energy projects.

These are just some of the highlights of the sub-programme, with many more initiatives under way. For more information, please visit www.unep.org/climatechange or follow UNEP on twitter.com/unep or facebook.com/unep.org

Global new investment in renewable energy: Developed and Developing countries, 2004-2014, \$Bn.



Source: Global Trends in Renewable Energy Investment 2015



02

IN FOCUS

COMMUNITIES AND FORESTS REAPING BENEFITS OF CARBON TRADING

Thousands of people are benefiting from a carbon financing scheme in Kenya, which covers over 500,000 acres of threatened forest and contributes to wildlife conservation by securing a migration corridor.

Wildlife Works' Kasigau Corridor REDD+ Project is situated between Tsavo East and Tsavo West National Parks—Kenya's largest protected areas, which cover four per cent of the country's total land mass. In total, the project is expected to save 30 million tonnes of CO₂ emissions over its 30-year life.

Charcoal burning is a main driver of deforestation, and 84 per cent of the Kenyan population use charcoal and fuelwood as their main source of energy. Rob Dodson, Wildlife Works Director says that demand is fuelled by rapid population growth in the urban centres. "Mombasa, Kenya's second

largest city, has always seen this area as its free energy supply," he said. "It's gotten bigger recently as Mombasa suddenly got very, very large. About 2,000 bags of charcoal are coming out of this area to Mombasa each day."

To meet the demand in a legal and sustainable manner, the carbon credit scheme has initiated charcoal production methods that reduce pressure on forests.

"The illegal production of charcoal has definitely reduced since the REDD+ project started," said Mr. Dodson. "We are working to try and find an alternative to the old way of making charcoal—that is, instead of cutting the whole tree down and making charcoal, we just give it a haircut, we take those trimmings into a special kiln, carbonize and then briquette that."

The Kenyan government is also attempting to minimize illegal logging and charcoal production

"The Kenyan government has considered charcoal production as a serious issue, which led to the enactment of 2009 rules to regulate the production of charcoal," said Rose Akombo, Assistant Director of the Kenya Forest Service. "The charcoal rules enable the Kenya Forest Service to promote sustainable charcoal production in the dryland areas—which cover over 80 per cent of the Kenyan land mass."

"The governments in Eastern Africa have recognized the importance of the charcoal trade and of the illegal timber trade, and have asked the United Nations for support," said Tim Christophersen, UN-REDD coordinator at UNEP. "We are working on a new initiative to help the countries to improve customs controls, train the judiciary and the law enforcement officials, and sensitize consumers and producers about the effects of illegal charcoal."

The project generates over 1 million Voluntary Emission Reductions, a carbon offset that can be bought or sold. The revenues from the sale of the offsets are benefiting almost 150,000 rural people through schools and water supplies. It has also resulted in direct employment for 300 members of the local community—some of whom are reformed poachers and people who logged illegally.

The project is also conserving wildlife, demonstrating further the multiple benefits of the REDD+ initiative. The corridor is now home to over 50 species of large mammals, more than 20 species of bats, over 300 species of birds and important populations of endangered wildlife species, including over 2,000 African elephants.



03



04

"The illegal production of charcoal has definitely reduced since the REDD+ project started."

Rob Dodson, Wildlife Works Director

01 UNEP assisted the city of Cape Town in a drive to switch to residential solar heaters

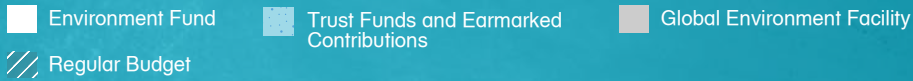
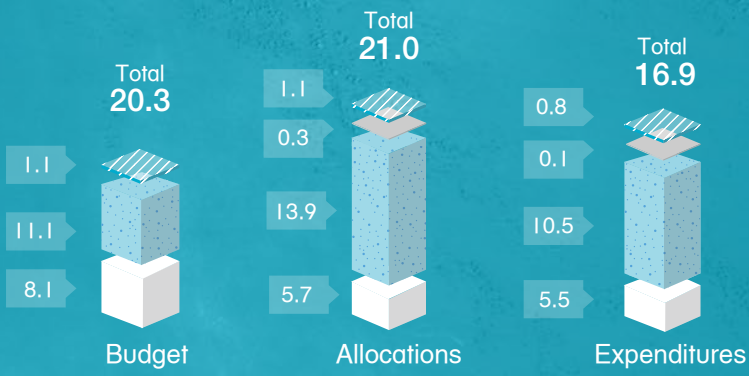
02 Renewables are continuing to claim an ever bigger slice of energy markets

03 The Tsavo region of Kenya, where a carbon credit project is reducing emissions and bringing other benefits

04 A woman cooks with charcoal in the Tsavo region of Kenya

2014 EXPENDITURES

*Amount in US\$ Millions



Note: Figures are preliminary as the final year figures are pending audited financial statements

DISASTERS AND CONFLICTS

Minimizing Environmental Threats

Since the start of the new millennium, the world has witnessed over 10,000 natural and industrial disasters and dozens of major conflicts, killing millions and affecting many more. Not only do these tragic events claim lives, cause displacement and undermine human security, they degrade or destroy natural resources such as water, land and forests essential for communities to recover. Environmental degradation and the mismanagement of natural resources are themselves underlying risk factors for conflict, thus undermining stability and opportunities for sustainable development.

UNEP aims to minimize such threats to human well-being by supporting governments to reduce risk factors through better policies, carrying out post-crisis assessments, and building recovery programmes that address environmental needs, support peacebuilding and promote long-term sustainable development.

| The first cyclone of the 2008 season in the northern Indian Ocean was a devastating one for Myanmar.

With many high-level emergency situations unfolding in 2014, UNEP's work on preventing serious environmental crises from impacting on human well-being—one of two areas of focus, the second being recovery—took on an even greater importance.

One particular highlight of UNEP's field work was an active role in the safe disposal of Syria's chemical weapons. In August 2013, rockets containing Sarin gas landed near Damascus, killing and poisoning many civilians, including women and children—just one in a series of such attacks. Following great international pressure, the Syrian regime subsequently signed the Chemical Weapons Convention and agreed to the destruction of its chemical weapons materials. UNEP, at the request of the UN Secretary-General, deployed experts to advise on minimizing environmental risks during packing and transport of the weapons as part of the joint UN and Organisation for the Prohibition of Chemical Weapons mission. In particular, UNEP identified the Port of Latakia as a point of vulnerability, and recommended that materials be shipped as soon as they arrived, rather than stored at the port to await bulk shipment. All of the proposed measures were followed.

In Syria approximately **700 tonnes** of Priority 1 chemical material were transported to the US Government ship *Cape Ray* for destruction, while the remaining material was taken to specialized treatment facilities, including in the UK and Germany.

The Joint Environment Unit (JEU), run by UNEP and the Office for the Coordination of Humanitarian Affairs, also identified and addressed industrial hazards in the region of Toamasina, Madagascar. Two risk-assessment missions highlighted the acute threat posed by abandoned and corroded ammonia containers—resulting in the removal of the 26-metric-tonne containers, as well as a renewed national focus on managing industrial

risks. Meanwhile, the Environment and Security Initiative (ENVSEC), an initiative between UNEP and five other partners, completed assessments of the security risks from climate change in 11 countries in Eastern Europe, Central Asia and the Southern Caucasus—for example, analyzing the potential impacts on the Chu and Talas water basins in Kazakhstan and Kyrgyzstan.

At the global level, UNEP and the Partnership for Environment and Disaster Risk Reduction promoted ecosystem-based approaches to disaster risk reduction (Eco-DRR). UNEP and partners have been engaging with Member States to strengthen the role of the environment and recognition of Eco-DRR in the global framework on disaster risk reduction, which is scheduled for revision in 2015 at the 3rd United Nations World Conference on DRR in Sendai, Japan. UNEP is implementing demonstration Eco-DRR projects in Sudan, Afghanistan, the Democratic Republic of Congo, and Haiti to show how healthy, well-managed ecosystems can reduce disaster risks by preventing or reducing hazards, and supporting climate change adaptation and resilient livelihoods.

Moreover, UNEP is strengthening national awareness and capacities to implement Eco-DRR approaches, such as integrated water resource management and coastal zone management, through training and technical assistance. Efforts are also ongoing to cultivate the next generation of policymakers and practitioners with Eco-DRR experience through the release of UNEP's first massive open online course (MOOC) on Disasters and Ecosystems: Resilience in a Changing Climate. Over 10,000 people from more than 180 countries have enrolled in the course.



- 01** The 2015 Balkan floods displaced hundreds of thousands of people and caused significant environmental damage
- 02** Shashpul Village in Afghanistan, which is particularly vulnerable to climate change
- 03** Community members in Wadi El Ku, North Darfur, discuss UNEP's water catchment project
- 04** Nigerian fisherman on oil-polluted lake



The failure of the Stolice mine tailing dam in Krupanj released over **100,000 m³** of tailing slurry into the Jadar River, part of the Danube system, in Serbia. Analysis of water and sediment samples showed very high levels of arsenic, antimony and lead.



02

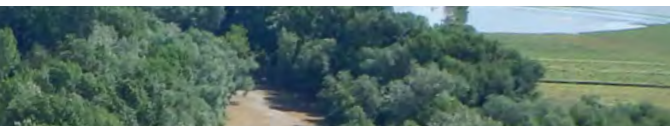


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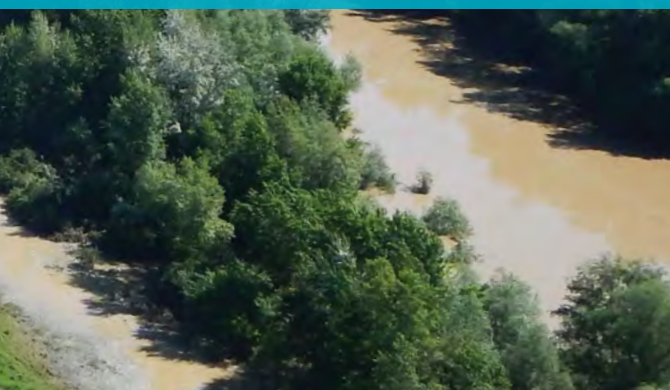
RESPONSE AND RECOVERY

In the second area of focus, response and recovery, UNEP responded to five emergencies in 2014. For example, UNEP deployed environmental expertise to assess risks from industrial facilities following severe flooding in the Balkan Peninsula in May 2014, which killed dozens and displaced over 100,000 in Serbia, Croatia and Bosnia-Herzegovina.

A UN Disaster Assistance and Coordination team supported emergency response work, and the JEU provided an environmental expert, to assess risks from flooded industrial zones and a flood management expert. With over 1,200 landslides, the JEU later deployed a landslide expert through the UK Geological Survey to identify immediate risks and actions that could help minimize loss of life and property. Building on the initial findings, UNEP deployed an environmental expert to support the Serbian Government in carrying out a Recovery Needs Assessment.



UNEP estimated the total value of the environmental damage at **\$27.9 million** in Serbia, and recommended an environmental recovery and reconstruction plan estimated at **\$56.2 million**.



UNEP ENVIRONMENTAL ASSESSMENT OF Ogoniland



Oil contamination in Ogoniland is widespread and severely impacting many components of the environment.



↑ 1,000

Samples from **7 of 28** wells found levels of hydrocarbon pollution were 1,000 times higher than the Nigerian drinking water standard.



↓ 10%

10 per cent loss of healthy mangrove cover (over **307,380 m²**) – in some areas due to artisanal refining.



\$1 Billion
five years
clean-up

\$1 billion required to cover the first five years of the clean-up project.



04

“The positive effects of improved regulation, new clean-up approaches and increased surveillance recommended in UNEP’s report will benefit not only communities in Ogoniland, but all communities in oil-producing areas in the Niger Delta and beyond.”

UNEP Deputy Executive Director Ibrahim Thiaw

UNEP also proposed longer-term measures to help build back better and resolve important long-standing environmental challenges.

In November, UNEP organized a series of high-level and technical meetings to refocus efforts on what is needed to start the clean-up of oil contamination in Nigeria’s Ogoniland region. This was in follow up to a 2011 UNEP assessment of the impact of over 50 years of oil operations in the region, part of the Niger Delta, which led to greater attention on the environmental impacts of the industry on local communities. The November meetings, hosted by UNEP in Geneva, brought together representatives from the Nigerian government, Ogoniland communities, the oil industry, and the UN system to chart a way forward and develop solutions to many technical obstacles that have prevented the clean-up from beginning. Although timetables and targets still need to be set, UNEP, alongside the broader UN family, stands ready to assist further in the process leading to a cleaner and healthier environment in Ogoniland.

To support sustainable and resilient post-crisis recovery, UNEP is delivering complex multi-million dollar environmental recovery programmes in five countries—Afghanistan, Sudan, South Sudan, the DR Congo and Haiti.

- 01 Hydrocarbon pollution on surface water in Ogoniland
- 02 Haiti, a Small Island Developing State, faces infrastructure challenges as a result of natural disasters and poverty
- 03 UNEP also supports Enèji Pwòp, a clean-energy retail programme in Haiti
- 04 Linemen Gedeon Huegevald (left) and Albert Tessonno building a mini-grid in the town of Roche-à-Bateaux in Haiti’s rural south

Efforts are intended to provide the long-term investment and sustained support necessary to ensure lasting results. In Afghanistan, for example, UNEP works with the National Environmental Protection Agency to reduce climate risks through training, technical assistance and demonstration projects on climate resilience in five provinces. In the mountainous central highlands, UNEP and partners are working to increase water storage at community level and promote sustainable water usage practices. Afghanistan is considered to be one of the most vulnerable countries to climate change and has the lowest water storage capacity per capita in the Central Asian region.

Similarly, in North Darfur, UNEP is leading a catchment management project to put in practice more sustainable approaches to soil, water, and forest management. Efforts to improve agricultural productivity are on-going, with some 1,200 households set to benefit from improved natural resource management practices and the establishment of community revolving funds. UNEP and partners are also working closely with 100 pioneer farmers who will test and demonstrate novel agricultural and natural resource management techniques.

Encouraging more sustainable and resilient environmental management is an essential part of development and post-conflict recovery, and UNEP will continue to focus on promoting such an approach while responding to environmental crises as and when required.

These are just some of the highlights of the sub-programme, with many more initiatives under way. For more information, please visit www.unep.org/disastersandconflicts or follow UNEP on twitter.com/unep or facebook.com/unep.org

IN FOCUS

ALLEVIATING ENERGY POVERTY IN HAITI

Haiti, a nation that has suffered from devastating natural disasters and deepening poverty, has one of the lowest electrification rates in the world—meaning that many use dirty fuels for lighting, with negative health and environmental effects. While limited access to electricity is holding back economic growth, an innovative solar-diesel system is set to provide reliable and affordable electricity for up to 1,600 households, or 8,000 people, in Haiti's rural south-west.

The \$4.6 million UNEP-coordinated project—funded primarily by the Government of Norway in addition to USAID, the Inter-American Development Bank and the National Rural Electric Cooperative Association (NRECA) International Foundation—aims to improve access to modern energy services and increase economic development in three coastal towns in the South Department, about 250 km from the capital Port-au-Prince.

“We are all waiting impatiently for electricity,” said Albert Tessonno, a 30-year old lineman working on the installation of the hybrid mini-grid and a native of Roche-à-Bateau. “My wife is living in Port-au-Prince because there is no work here, but she will come back with our son when the electricity is turned on. I am going to set up a small shop that she can manage, and I hope to also continue to work on the grid.”

US not-for-profit NRECA International Ltd. is installing the mini-grid, which is scheduled for completion in June 2015. The grid will allow communities to set up small businesses such as bakeries, convenience stores and ice-makers. The grid includes 23 km of line (that will connect Roche-à-Bateaux, les Côteaux and Port-à-Piment) and pre-paid metering systems. NRECA's partner organization, the Solar Electric Light Fund, is implementing the solar PV system as well as streetlights—80 of which will have batteries for all-night lighting and 150 of which remain lit until 10 pm.

With the support of NRECA, the three communities have set up a member-owned cooperative, the Cooperative Électrique de l'Arrondissement des Côteaux (CEAC), which will operate and manage the electricity system in the long term.

“We had to teach people in the communities what a cooperative in the electricity sector was all about,” said Rithot Thilus, General Manager of CEAC. “But now other communities are asking how they can copy the cooperative idea, and that is even before the electricity is turned on. Everyone wants electricity and is fed up of living in the dark or using dirty fuels like kerosene that are bad for your health.”

To support a possible expansion of the project, in 2015 UNEP will be guiding the development of a regulatory framework for mini-grids.

UNEP's involvement in the energy sector in Haiti is part of a broader programme in the South Department—the Côte Sud Initiative—that has been operational since 2011 working with the Haitian government, civil society and other UN partners.

“We had to teach people in the communities what a cooperative in the electricity sector was all about.”

Rithot Thilus, General Manager of CEAC



02



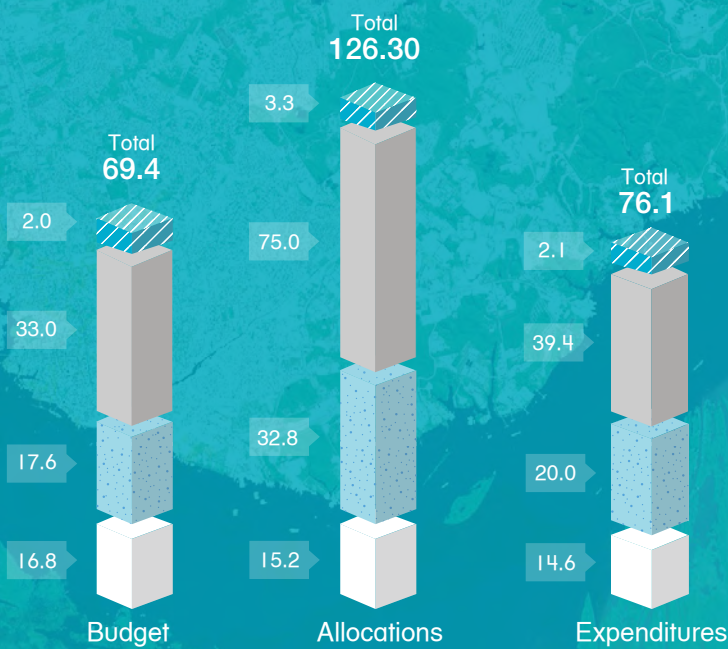
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2014 EXPENDITURES

*Amount in US\$ Millions



Environment Fund
 Regular Budget
 Trust Funds and Earmarked Contributions
 Global Environment Facility

Note: Figures are preliminary as the final year figures are pending audited financial statements

The junctions of the Amazon and the Rio Negro Rivers at Manaus, Brazil. The Rio Negro flows 2300 km from Columbia, and is the dark current forming the north side of the river. It gets its color from the high tannin content in the water.

ECOSYSTEM MANAGEMENT

Supporting Human Well-being through Healthy Ecosystems

Ecosystems—the complex interdependent webs of living organisms and other natural resources—play a critical role in supporting human well-being and driving economic growth through the valuable services they provide such as food, water for drinking and irrigation, pollination and climate regulation. Yet human society has systematically undermined these natural allies, treating ecosystems, such as forests, arable land and rivers, as though they are inexhaustible. As climate change begins to bite, altering weather patterns and putting more pressure on ecosystems, sustainable management of these natural resources will become ever more crucial.

The post-2015 sustainable development agenda cannot be achieved without healthy and functioning ecosystems. UNEP assists governments to ensure that their ecosystems are conserved and sustainably managed to ensure long-term provision of ecosystem services essential for human well-being and economic growth.



Since the release of the Millennium Ecosystem Assessment in 2005, UNEP has driven a global push to value and account for the services provided by ecosystems—natural capital—in development planning. This is essential to build sustainable and resilient economies, and protect the glorious biodiversity of our planet, by conserving the natural resources upon which human well-being depends.

“People depend on ecosystem services such as clean air and water. These values are not listed on balance sheets. The value of ecosystem services should be more visible in community planning and business development.”

Swedish Ministry of the Environment and Energy Statement

The many global initiatives in place have led to an impressive groundswell at national level. UNEP now works in 58 countries, including through The Economics of Ecosystems and Biodiversity (TEEB) and VANTAGE, on the valuation of ecosystem services and natural capital accounting.

Guatemala and Rwanda already have accounts in place, and in 2014 Mauritius and Kenya completed their experimental accounts, with a budgetary increase to the Kenya Forest Service thanks in part to earlier UNEP studies showing the macroeconomic benefits of forests. Additionally, a management plan was endorsed in the Mau forest block with the support of the European Commission and UNEP.

Another eight countries have completed ecosystem valuation exercises, including Panama. Others are acting under their own initiative, with Sweden in June 2014 passing a bill incorporating ecosystem services into national decision-making. UNEP is also working to support the development and updating of National Biodiversity Strategies and Action Plans (NBSAPs), a key means of implementing the strategic plan of the Convention

on Biological Diversity (CBD), in 81 countries—17 of which, by the end of 2014, had integrated the ecosystem approach in their NBSAPs. Meanwhile, the NBSAP Forum has reached over 1,000 members, providing support to the updating and mainstreaming of NBSAPs.

Outside of national development processes, a growing number of actions are taking place to ensure that ecosystems and their services are sustainably managed. For example, Cuba, the Dominican Republic and Haiti signed an agreement to rehabilitate degraded areas in the Caribbean Biological Corridor, while South Africa committed to invest \$4 million in restoring the catchments of the Ntebalanga Dam, with UNEP support key in this process. During 2014, the Spain-UNEP Partnership on Protected Areas concluded its work on increasing protected area coverage and management and supporting local communities in and around 19 protected areas across Latin America, Africa and Southeast Asia.

GLOBAL ACTION GROWING, BUT MORE TO BE DONE

At the global level, the UNEP Finance Initiative works with 43 financial institutions, with over \$6.4 trillion of assets under management. These institutions committed to work towards integrating natural capital criteria into products and services by signing the Natural Capital Declaration. The UNEP FI Principles for Sustainable Insurance Initiative, backed by insurers representing 15 per cent of global insurance premium and \$9 trillion in assets under management, is carrying out a global project to build climate- and disaster-resilient communities and economies, highlighting the role of natural ecosystems, alongside man-made infrastructure, in reducing cyclone, earthquake and flood risk.

Marine litter, a growing global problem (see page 47), and other issues in aquatic environments are being tackled through a variety of means, including UNEP's Regional Seas Programme, which celebrated its 40th anniversary in 2014, and the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA). Some 18 Regional Seas Convention Action plans were in place by the end of 2014, and in July,

01 Ecosystems, such as coral reefs, provide a range of economic benefits to humanity
02 Biodiversity is under serious threat as the risk of extinction for many species climbs
03 Great Apes face myriad threats in Africa and Asia



the regional Plan on Marine Litter Management in the Mediterranean came into force. Of the 27 countries UNEP works with on all marine issues, 11 showed progress in using ecosystem approaches in 2014. Under the GPA, 82 countries have action plans, and a resolution on marine plastic debris and micro plastics passed at the first United Nations Environment Assembly has strengthened UNEP's mandate to act.

The Great Apes Survival Partnership (GRASP)—a global alliance headed by UNEP and the United Nations Educational, Scientific and Cultural Organization (UNESCO)—works to protect great apes and their forest homes in Africa and Asia. In 2014, GRASP signed an agreement with the Roundtable on Sustainable Palm Oil to raise awareness of how sustainable palm oil can conserve orangutan habitats, and to explore the implications of oil palm expansion for African great apes.

Further good news for biodiversity came in the shape of Protected Planet—produced by UNEP's World Conservation Monitoring Centre in partnership with the International Union for Conservation of Nature—which revealed that the world is on track to meet Target 11 of the CBD's Aichi Biodiversity Targets.

The target calls for well-managed conservation areas covering at least 17 per cent of the world's terrestrial areas and 10 per cent of marine areas by 2020. Progress on other Aichi Biodiversity Targets was less encouraging, however. Global Biodiversity Outlook 4 found that only 5 targets are on track, 33 are progressing slowly, 10 have not improved, and 5 are worsening—highlighting the need for accelerated and concerted action on biodiversity.

“Despite individual success stories, the average risk of extinction for birds, mammals and amphibians is still increasing.”

Global Biodiversity Outlook 4

PROTECTED PLANET



15.4% of terrestrial and inland water areas and **3.4%** of the global ocean protected



1.6 million km² of new protected areas designated since 2012



6.1 million km² since 2010, the total additional global coverage equates to an area approaching the size of Australia





01

PROVIDING INFORMATION AND SUPPORT

To support efforts to protect species and ecosystems, UNEP carries out research and provides tools. One such new initiative came online in February 2014. UNEP is a partner in Global Forest Watch, a dynamic forest monitoring and alert system that uses satellite technology, open data and crowdsourcing to combat deforestation and broader biodiversity loss.



The world lost **2.3 million km²** of tree cover from 2000 to 2012

In addition, the Inclusive Wealth Project, a joint initiative between UNEP, the UN University International Human Dimensions Programme and UNESCO, launched the Inclusive Wealth Report 2014, which looks beyond the limited yardstick of Gross Domestic Product to take into account natural resources and social dimensions of wealth. The 2014 report expanded the initial study to produce an index of 140 countries, and found average positive growth in per-capita inclusive wealth—and thus progress toward sustainable development—in 85 of the 140 countries evaluated.

Finally, TEEB in February 2014 launched the TEEB Agriculture and Food study, which aims to shed light on the negative impacts of unsound environmental management on the 1.3 billion people working in agriculture, and the UNEP-hosted Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) continued work on a set of fast-track assessments on pollination and food production, land degradation and invasive species.

“Global Forest Watch is a near-real time monitoring platform that will fundamentally change the way people and businesses manage forests. From now on, the bad guys cannot hide and the good guys will be recognized for their stewardship.”

Dr. Andrew Steer, President and CEO, World Resources Institute

These are just some of the highlights of the sub-programme, with many more initiatives under way. For more information, please visit www.unep.org/ecosystemmanagement or follow UNEP on twitter.com/unep or facebook.com/unep.org

UNEP also hosts a variety of Multilateral Environmental Agreements (MEAs) related to ecosystem management: the Convention on Migratory Species, the Convention on Biological Diversity, the Convention on International Trade in Endangered Species of Flora and Fauna, the Carpathian Convention and various regional seas conventions. 2014 highlights from the conventions can be found on page 50 to 53 of this report.

01 Global Forest Watch aims to tackle deforestation through satellite tracking
02 -04 Reefs and marine life in El Nido, a protected area in the Philippines, which is seeing a rise in sustainable tourism



IN FOCUS



02

SUSTAINABLE TOURISM THRIVES IN PHILIPPINES' LARGEST MARINE SANCTUARY

About 420 kilometers south-west of Manila, in Bacuit Bay, lies the largest marine sanctuary in the Philippines. El Nido is a protected area of 45 islands and islets covering a total of 903 square kilometers, and boasts one of the most diverse ecosystems in the region.

In the last ten years the number of tourists flocking to El Nido's white beaches, lush forests, and sculpted jade islands has more than tripled. But while tourism is a mainstay of El Nido's economy, it is an industry sensitive to reef conditions: once coral reefs are damaged, areas home to those reefs lose their attraction as tourist destinations.

The Global Coral Reef Monitoring Network estimates that the world has effectively lost 19 per cent of productive reef area, with another 15 per cent under immediate threat. Approximately 500 million people depend on coral reefs for food, coastal protection, and income from tourism.

However, across the Asia-Pacific region and the Indian Ocean, the Green Fins initiative—established by UNEP and The Reef-World Foundation with other partners—is battling the trend of diminishing reefs by providing the only internationally recognized set of environmental standards for business owners and national authorities to promote best practices in sustainable diving and snorkeling tourism.

“Green Fins is a combination of what to do and what not to do to drive a sustainable industry,” said Reef-World Foundation project manager Samantha Craven. “In the Philippines, around 130 dive centres are registered Green Fins members and globally over 260. It's a number that keeps growing as we also introduce the program in Vietnam and the Maldives.”

Since the introduction of Green Fins in El Nido in 2012, 16 dive shops and 60 snorkeling tour offices have established operations there. Rami Pangniban, one such dive shop owner, is adamant that snorkeling and diving should be a sustainable activity.

“If we do not protect the environment, we will go out of business,” he said.

Sustainability is paying dividends for Mr. Pangniban, who started his company with just a table and a stack of flyers in 2011. He now caters for up to 20 tours a month, with three boats and a shop.

“Green Fins has been somewhat of a revolution amongst its members,” said Kim McMenemy, a diving instructor in Thailand. “I was sufficiently impressed by its philosophy, support, methodology and ease of use that I still actively implement it at my new dive centre, and thoroughly encourage all our instructors and divers to take part.”

Sustainable tourism is an important example of the Green Economy in action. As tourism continues to grow faster in developing countries than in developed countries, it is vital that Sustainable Consumption and Production patterns are integrated with tourism, so that the unique biodiversity of places like El Nido can be preserved and provide livelihoods for generations to come.

“To conserve biodiversity is to sustain life. We need Nature. Nature does not need us.” UNEP Deputy Executive Director Ibrahim Thiaw



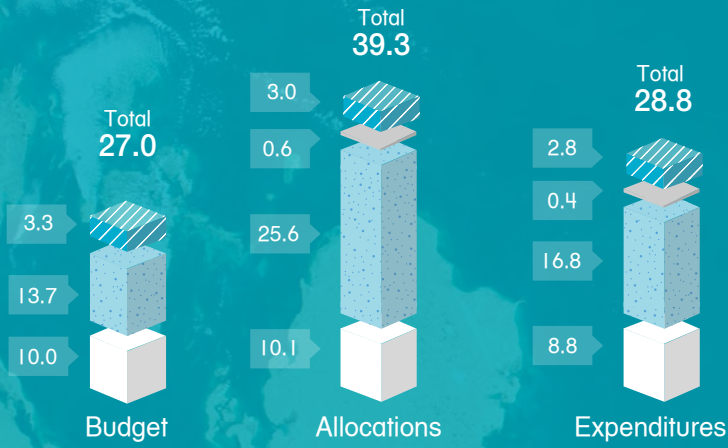
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2014 EXPENDITURES

*Amount in US\$ Millions



Note: Figures are preliminary as the final year figures are pending audited financial statements

ENVIRONMENTAL GOVERNANCE

Strengthening Global Governance in an Interconnected World

Governing the planet's rich and diverse natural resources and managing environmental threats in a globalized world of interconnected nations, economies and people requires stronger global, regional, national and local responses involving a wide range of actors. Effective environmental governance at all levels is critical to prompt and coordinated responses. UNEP's mandate is to be the leading global environmental authority promoting and strengthening this governance. UNEP assists member states to implement their environmental obligations and develop their policies, laws and institutions to place environmental sustainability at the heart of development.

UNEA

FIRST-EVER ENVIRONMENT ASSEMBLY RAISES THE BAR

2014 was a momentous year as the environment was treated as an issue equally critical to the current and future welfare of mankind as peace, security, finance and health.

Over 1,000 people—including 157 national delegations, 107 of which were at ministerial level—participated in the first-ever United Nations Environment Assembly (UNEA) in Nairobi, Kenya, in June. Member States were joined by major groups and stakeholders, including leading scientists, civil society and business leaders for five days of deliberations on a range of environmental themes fundamental to inclusive and sustainable development.

“The air we breathe, the water we drink and the soil that grows our food are part of a delicate ecosystem that is increasingly under pressure,” said UN Secretary-General Ban Ki-moon, addressing the assembly. “We need to act decisively to change humanity’s relationship with our planet.”

UNEA concluded its five-day deliberations with 17 resolutions and two decisions that encourage international action on issues ranging from the Sustainable Development Goals including Sustainable Consumption and Production, the escalating problem of the illegal trade in wildlife, and air pollution. The outcomes also reaffirmed members’ commitment to the full implementation of the Rio+20 outcome document and “all the principles” of the 1992 Rio Declaration on Environment and Development.

UNEA called for the full integration of the environmental dimension into the sustainable development process, acknowledging that a healthy environment is an essential requirement for an ambitious, universal and implementable post-2015 Sustainable Development Agenda. The Assembly also called on Member States to accelerate and support efforts for the promotion of sustainable production and consumption patterns, including through resource efficiency and sustainable lifestyles.

*“These resolutions, including the one on air quality, provide a clear indication that, in its successful and ambitious first session, **UNEA** is providing a robust policymaking platform that truly places the environment at the heart of sustainable development.”*

UNEP Executive Director Achim Steiner



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On air pollution, which claims 7 million lives each year, delegates unanimously agreed to encourage governments to set standards and policies across multiple sectors to reduce emissions and manage the negative impacts of air pollution on health, the economy, and overall sustainable development. UNEP was mandated to step up its support to governments through capacity building, the provision of data and assessments and reporting on progress.

THE ENVIRONMENTAL CRIME CRISIS



Global environmental crime is worth up to **\$213 billion** each year



Militia and terrorist groups in Africa may earn up to **\$289 million** annually from the illegal or unregulated charcoal trade



Groups earn up to **\$12.2 million** each year from elephant ivory in the Central Africa sub-region

A UNEP-GRID ARENDAL Collaborating Centre and INTERPOL Report



UNEA strongly encouraged governments to commit to targeted actions to eradicate supply, transit and demand for illegal wildlife products—a key focus of UNEP's work in recent years. The resolution promotes zero-tolerance policies and the development of sustainable and alternative livelihoods for communities adversely affected by the illegal trade.

Many other events took place on issues central to UNEP's environmental governance portfolio. For example, a Global Symposium on Environmental Rule of Law brought together Chief Justices, Heads of Jurisdiction, Attorneys General, lawyers and legal experts to raise awareness of the role of environmental law as an indispensable tool in achieving sustainable development and a Green Economy. The Symposium was a continuation of UNEP's work on engaging the legal and law enforcement community on environmental issues, through ongoing programmes such as the Green Customs Initiative, the partnership with INTERPOL and direct support to governments on strengthening institutional capacity.

- 01** UNEP Executive Director Achim Steiner, HRH Prince Albert II of Monaco and Kenyan President Uhuru Kenyatta at UNEA
- 02** UNEA President, Oyun Sanjaasuren (Mongolia) and UNEA Vice-President, Mariano Castro (Peru), who were elected at the start of the assembly
- 03** Participants gather at UNEP's headquarters for UNEA
- 04** UNEA Closing Plenary - UNEP Executive Director Achim Steiner and UN Secretary-General Ban Ki-moon
- 05** UNEP Deputy Executive Director Ibrahim Thiaw and Dr. Oyun Sanjaasuren, Minister of Environment and Green Development of Mongolia and UNEA President, in discussion at UNEA

“The rise in the illegal killing of species threatens wildlife populations, the livelihoods of local communities and the lives of rangers in their fight to stem the illegal tide.”

UNEP Deputy Executive Director Ibrahim Thiaw

A key achievement came in the form of UNEP's contribution to the Post-2015 Development Agenda and the Sustainable Development Goals, which will be adopted in September 2015. UNEP's role was to give voice to the environment, and did so by releasing a series of policy notes—linking the environment to social and economic issues such as human health, employment, poverty eradication and food security—and working with the rest of the UN system to ensure the environment was recognized as one of the bedrocks of sustainable development in the Open Working Group, as called for at Rio+20. The goals on climate change, combating ecosystem degradation and sustainable consumption and production demonstrate how crucial good stewardship of our natural resources is to sustainable economic growth and future prosperity. UNEP is also playing an active role in the UN Statistics Division-coordinated efforts to develop indicators for the post-2015 sustainable development agenda.

PARTNERSHIPS CENTRAL TO GOVERNANCE

Partnerships are central to effective environmental governance, and one such collaboration is the coordinated UN approach to including the environment in wider development processes—for example, through the UN Development Assistance Framework (UNDAF). In 2014, UNEP supported the completion of five UNDAFs, provided assessments and environmental data to eight UN country teams, and provided capacity building for country teams and national partners for 20 countries. One highlight was the response to the Syrian crisis, which includes sustainable natural resource management as a focal area. UNEP has been providing technical assistance, for instance working to ensure that efforts to support the estimated 1.3 million Syrian refugees in Jordan do not harm the environment.

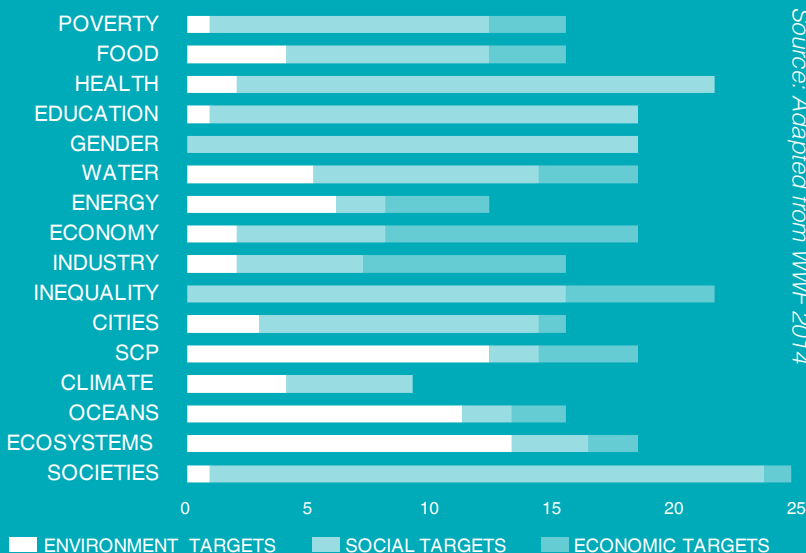
Furthermore, UNEP supported the implementation of environmental sustainability components in the UNDAFs by developing 15 joint programmes and projects with UN partners. UNEP in September also signed—alongside 18 Executive Heads of UN funds, programmes, departments, and specialized agencies—the Standard Operating Procedures (SOPs) for countries adopting the UN Secretary-General's "Delivering as One" approach, aimed at making the UN system more coherent, effective and efficient.

Moreover, UNEP works with the UN Development Programme on the Poverty-Environment Initiative (PEI), which in 2014 provided support to 28 countries for the integration of pro-poor, environmental sustainability objectives into policies, plans and budgets. New poverty-environment mainstreaming programmes in Indonesia, Mongolia, Myanmar, Paraguay and Peru entered their full phase of implementation. PEI has expanded its work on promoting quality investments and assisting governments to plan and manage investments in natural resources for the benefit of the poor. For example, PEI helps governments ensure that new mining projects will contribute to sustainable development, taking account of the interests of community groups and indigenous people in local development plans.

Civil society, business and other sectors are just as important, and UNEP's Major Groups and Stakeholders Branch draws upon the knowledge of these important groups: over 300 organizations are accredited to UNEP, and many more work with the organization. In 2014, a milestone in better engagement of Major Groups and Stakeholders (MGS) was achieved with the presentation to UNEA of a draft new stakeholder engagement policy—prepared with the input of MGS representatives, internationally renowned experts and governments. The policy builds on best practices in multilateral organizations, thus representing state-of-the-art stakeholder

01 The Sustainable Development Goals aim to improve lives and livelihoods across the globe, such as for this tea picker in Sri Lanka
02 The illegal charcoal trade causes deforestation and funds conflicts in Africa

SUSTAINABLE DEVELOPMENT GOALS



Source: Adapted from WWF 2014



While the environment has been integrated substantially more could be done, particularly in the areas of poverty, education, gender, inequality, and societies. In 2015, UNEP will continue to work toward better integration.



02

engagement in the 21st century. A new UNEP Access-to-Information policy was also created to further improve transparency. Meanwhile, engagement with Indigenous Peoples reached new heights with indigenous experts contributing to topics such as the development of indicators on land rights and land tenure in the context of the post-2015 development agenda, pastoralism and the Green Economy, and the first Global Intergovernmental Multi-Stakeholder Consultation on the Sixth Global Environment Outlook.

South-South and Triangular Cooperation (SSTC), which cuts across all of UNEP's sub-programme work, is a further mechanism to enhance environmental capacity building and technology-support activities in developing countries and regions of the South. UNEP hosted a solutions forum at the 2014 Global South-South Development (GSSD) Expo under the theme "Green Economy for Sustainable Economies" with a focus on solutions that respond to increasing energy demands and rapid urbanization growth in the global South. UNEP also participated in the South-South Cooperation on Climate Change Forum at the climate talks in Peru to find ways to tackle climate change challenges through stronger SSTC.

Regional and subregional ministerial forums contribute to environmental governance, as they are one of the most relevant spaces for political and policy dialogue and identify regional priorities. Most recently, the Regional Forum of Ministers of Environment of Latin America and the Caribbean in March 2014 produced an agreement to advance a regional cooperation framework on the global sustainable development agenda, climate change, biodiversity, chemicals, waste, and Small Island Developing States (SIDS), among other crucial areas of action. The discussions subsequently fed into UNEA deliberations.

SUPPORTING MULTILATERAL ENVIRONMENTAL AGREEMENTS

Governments also act through Multilateral Environmental Agreements (MEAs). UNEP hosts many (details of their achievements can be found on pages 50-53 and throughout the report), and in 2014 strengthened collaboration across six biodiversity-related conventions. A draft sourcebook to support the development of proposals on resource mobilization was completed, and a help desk for National Biodiversity Strategies and Action Plans (NBSAPs) practitioners established. Further supporting work was carried out in relation to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity. The protocol entered into force in October, after surpassing the 50 required ratifications in July.

These are just some of the highlights of the sub-programme, with many more initiatives under way. For more information, please visit www.unep.org/environmentalgovernance or follow UNEP on twitter.com/unep or facebook.com/unep.org

ENVIRONMENT MANAGEMENT GROUP

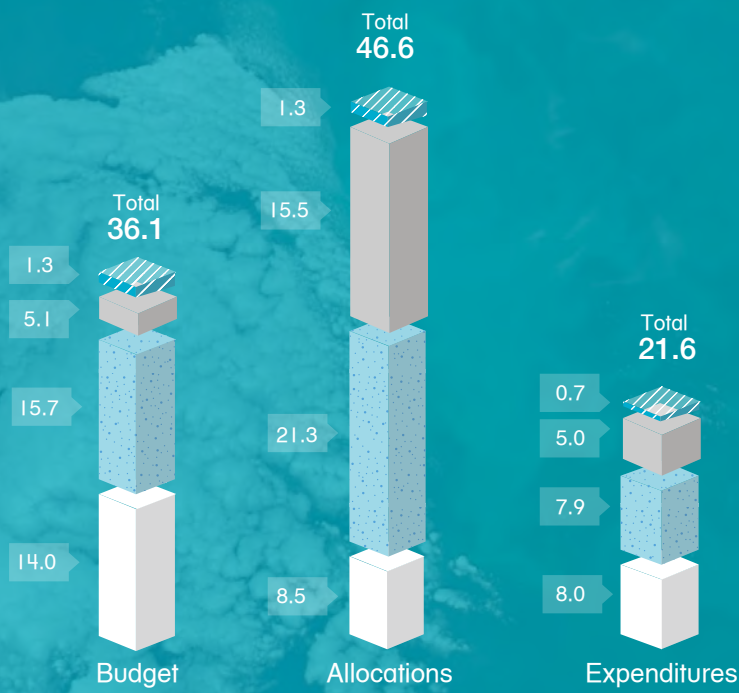
With a view to promoting enhanced coordination on environmental issues in the UN system, a UNEA resolution called on the UNEP Executive Director to develop system-wide strategies on the environment. The Environment Management Group (EMG), the UN-wide system coordination body on the Environment chaired by the UNEP Executive Director, is playing a key role in the development of such strategies through its membership—comprising 47 members from specialized agencies, programmes and organs of the UN, including the secretariats of the Multilateral Environmental Agreements. The EMG in 2014 also promoted coordination on thematic areas, in particular biodiversity, green economy, chemicals management and environmental and social sustainability in the UN system.

SUSTAINABLE UN

The UNEP Sustainable UN (SUN) facility continues to support UN organizations to 'walk the talk' on climate change. Their latest highlight is a tutorial—co-produced with the UN Development Programme and the EMG—to engage UN staff in 'Greening the Blue'. In UNEP and a few other UN organizations, all staff members are required to take the tutorial. At the UN Climate Summit in September, Secretary-General Ban Ki-moon urged the UN system to intensify efforts to achieve climate neutrality by 2020. As of 2014, nine organizations are fully or partially climate neutral. UNEP has been climate neutral since January 2008. In 2013 (latest figures available), UNEP offset its emissions at a cost of \$28,400, using Certified Emission Reductions from a wind energy project in Tamil Nadu in India.

2014 EXPENDITURES

*Amount in US\$ Millions



Environment Fund
 Trust Funds and Earmarked Contributions
 Global Environment Facility
 Regular Budget

Note: Figures are preliminary as the final year figures are pending audited financial statements

CHEMICALS AND WASTE

Ensuring Sound Management of Chemicals and Waste

Human society is increasingly dependent on chemicals in products for economic development and improving livelihoods. However, such gains must not come at the expense of human health and the environment. Unsustainable use, production and disposal of chemicals can hinder development by affecting water supplies, food security and productivity. Reducing hazards and improving chemicals management are essential components of the transition to an inclusive Green Economy. Environmentally sound waste management, with a focus on prevention of waste and converting waste into a resource, will bring about improvements in health and the environment and can create new business and job opportunities.

UNEP works towards these goals—in particular the World Summit on Sustainable Development (WSSD) goal that by 2020 chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment—through providing scientific assessments, bringing together the international community to address global challenges, and assisting governments to develop appropriate policies for monitoring and controlling harmful substances and hazardous waste.



01

Undoubtedly the best news of 2014 related to chemicals came in the September report by UNEP and the World Meteorological Organization, which revealed that the ozone layer is well on track to recovery thanks to 30 years of concerted international action (please see pages 36 and 37 for full details) on reducing the consumption and production of Ozone-Depleting Substances under the UNEP-hosted Montreal Protocol. UNEP's OzonAction Branch has contributed to this success story by assisting more than 100 developing countries to achieve and comply with the Montreal Protocol.

The achievements in the field of ozone demonstrate the power of international consensus, a process that is now gathering pace in targeting mercury—a heavy metal that contaminates ecosystems and the human food chain and causes toxic effects on the nervous, digestive and immune systems, and on lungs, kidneys, skin and eyes.

At the end of 2013, following years of intense UNEP-led negotiations, 93 countries and one regional economic integration organization had signed up to the Minamata Convention. By the end of 2014, an additional 34 countries had signed the treaty, and another eight had joined the United States in ratifying it. Throughout 2014, UNEP has supported more than 100 countries in efforts towards ratification and early implementation of the Convention. In undertaking these activities, UNEP has worked in collaboration with partners such as the UNEP-hosted secretariat of the Basel,

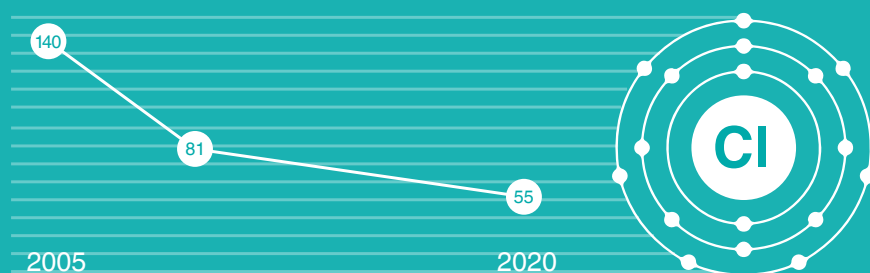
Rotterdam and Stockholm (BRS) Conventions (for details on the conventions' full achievements, see page 53), the Global Environment Facility (GEF), and the World Health Organization (WHO).

Supporting the convention, the UNEP Global Mercury Partnership is one of the main ways to reduce mercury emissions, releases and use. It targets eight areas, including Artisanal and Small-Scale Gold Mining, mercury in products and emissions from coal combustion—the latter emitting, along with deforestation, 735 tonnes of mercury annually to air and water. The 134 partners have carried out many activities, including training 1,700 miners in the Philippines on mercury-free techniques and targeting reductions in mercury emissions from the chlor-alkali industry. The target for the latter is a reduction to 250 tonnes of mercury per annum by 2015, compared to 500 tonnes in 2005.



REDUCTION IN CHLOR-ALKALI FACTORIES

The number of facilities operating chlor-alkali factories has dropped from about **140** in 2005 to **81** (the latest figures available). Euro Chlor has committed to closing all of its mercury cell facilities, which represent almost all mercury cell chlor-alkali production in Europe, by 2020. After accounting for pledges and plans for future closures, 55 plants will remain in 24 countries.



MINAMATA CONVENTION

128 Signatures

9 Ratifications (Djibouti, Gabon, Guinea, Guyana, Lesotho, Monaco, Nicaragua, the United States and Uruguay)

In Mozambique, the Quick Start Programme funded efforts to reduce and control pesticide use. Trends in pesticide use and associated human health and environmental hazards have been identified, and in 2014 the government cancelled the registration of **79** highly hazardous pesticides. The seed money of **\$248,500** catalyzed investments of **\$3 million**, and contributed to related efforts to boost youth employment and promote sustainable and resilient agriculture.

SOUND MANAGEMENT OF CHEMICALS

Mercury is only part of the picture, though, and thousands of other chemicals require sound management to minimize health risks. The Strategic Approach to International Chemicals Management (SAICM), to which UNEP provides the secretariat, is a key means to ensure chemicals are safely used. Support and buy-in for the sound management of chemicals and waste is growing: in 2014 some 179 nations reported they had policies in place, compared to 162 in 2011, while SAICM's Quick Start Programme (QSP) has now mobilized \$44.5 million to implement activities in over 100 countries. A total of 168 projects have been approved, and 109 have completed their activities.

Another significant step forward in securing funding for the chemical challenge, which until now has been uncertain, came at the first-ever session of the United Nations Environment Assembly in June 2014. Member States agreed to a special programme to support institutional strengthening at the national level in the implementation of SAICM, the BRS Conventions and the Minamata Convention. UNEP's Executive Director was requested to establish and administer the Trust Fund for Special Programme, with the pot being filled by voluntary contributions.

Despite the progress, however, harmful chemicals are still used in products without proper management. Businesses need information to reduce risks and support a transition to the use of less harmful chemicals, and consumers need information to allow informed choices. To tackle this challenge, UNEP and partners in 2014 designed the Chemicals in Products programme, which will facilitate the exchange of the necessary information to assist in creating safer products and sound chemicals management.

Another important element is providing the private sector with information on the economic costs of maintaining a passive approach to chemicals in products. The Business Case for Knowing Chemicals in Products and Supply Chains, produced in collaboration with Clean Production Action and launched at a SAICM meeting in Geneva, demonstrated that passive chemicals management brings high business risk (see box), while companies with proactive management plans derive long-term benefits.

In addition, UNEP works through other partnerships, such as the Global Alliance to Eliminate Lead Paint, which aims to phase-out the manufacture and sale of paints containing lead by 2020 and reduce the 143,000 annual deaths attributed to lead poisoning.

02

BUSINESS IMPACT OF PASSIVE CHEMICALS MANAGEMENT

\$138 million in fines to Target, Walgreen Co., CVS Pharmacy and Costco Warehouse over a three-year period due to chemical violations.

PlayStation recall due to high cadmium levels cost Sony **\$150 million**.

Mattel's recall of 9 million toys due to lead in paint cost **\$110 million** and reduced stock price by **18 per cent**.



"A thorough understanding of which chemicals are present in products we use on a daily basis, and any hazards they bring with them, is the first critical step to reducing the risk of these hazards."

Fatoumata Keita-Ouane, Head of UNEP's Chemicals Branch

- 01 Two young children in Mozambique, where cutting hazardous pesticide use is safeguarding health
- 02 Coal-fired power stations are a significant emitter of mercury



01

At the third meeting of the alliance in New Delhi in September, the latest status report showed that 43 countries had confirmed legally binding measures on lead paints—more than halfway to the interim 2015 target of 70 countries. The UNEP Chemicals GEF team has also contributed to the management of persistent organic pollutants. Some 40 countries are being assisted to comply with updating of National Implementation Plans under the Stockholm Convention. Many new projects were endorsed in 2014, including four projects to implement the Global Monitoring Plan of POPs (Persistent Organic Pollutants) in 43 countries.

MOVING FORWARD ON WASTE MANAGEMENT

Managing waste streams, another source of chemical exposure, is an integral part of the challenge, and work is also moving forward in this area. UNEP, in cooperation with the International Solid Waste Association (ISWA), in 2014 designed a technical assessment on waste issues, policy and governance and financing models—the Global Waste Management Outlook (GWMO), to be published in 2015. Efforts also continue through the Global Partnership on Waste Management (GPWM), which in 2014 enhanced international cooperation, filled information gaps and strengthened awareness of the issue.



02

These are just some of the highlights of the sub-programme, with many more initiatives under way. For more information, please visit www.unep.org/chemicalsandwaste or follow UNEP on twitter.com/unep or facebook.com/unep.org

- 01 Transforming crop waste into biomass fuel can save money and greenhouse gas emissions
- 02 Waste streams are a significant source of chemical exposure
- 03 Keo Mom, CEO of the LYLY Food Industry Co Ltd.
- 04 Cambodian capital city, Phnom Penh
- 05 Faces of the future generation of Cambodia



IN FOCUS

BIOMASS CONVERSION BRINGS PROFITS, ENVIRONMENTAL BENEFITS

The saying “waste not, want not” has been around for centuries, yet modern society has been slow to heed the words of its forebears. On average, we generate 1.2 kilogrammes of municipal solid waste per person per day and rising, according to the World Bank. The agriculture sector is little different: some 5 billion tonnes of waste agricultural biomass are generated every year.

However, UNEP is working to turn this biomass, which is the thermal equivalent of 1.2 billion tonnes of oil, to more productive uses instead of leaving it to rot and produce methane, a greenhouse gas that contributes to global warming.

UNEP has implemented pilot projects in Cambodia, Costa Rica and India to identify and assess suitable technologies for the conversion of biomass into energy—providing individual businesses with benefits and demonstrating to governments the advantages of national roll-out.

One such project was implemented in Cambodia by UNEP’s International Environmental Technology Centre (IETC)—which has waste agricultural biomass as one of its seven focal areas under the Global Partnership on Waste Management—and the National Cleaner Production Office-Cambodia.

At LYL Food Industry, one of the leading snack producers in Cambodia, 463 litres of diesel oil was needed each day for its production processes, or 27.23 litres per tonne of product. Due to the high price of diesel oil and the environmental impact, the company owner, Ms. Keo Mom, wanted to identify an alternative energy source.

The implementation of the waste agricultural biomass technology led to savings of 60,413 litres of oil per year, avoiding an estimated 159 tonnes of greenhouse gas emissions. It took the company just nine months to recoup its \$39,000 investment.

“The successful implementation of the waste biomass-fired heating has not only reduced our operational cost and environmental footprint, but has also provided us with great motivation to strive to be a more environmentally friendly and socially responsible company,” said Ms. Keo Mom. “Our continued efforts have even won us the ‘Green Industry’ award from the United Nations Industrial Development Organization. We are committed to the ongoing process of improving our energy efficiency and environmental performance so that we may become a model Cambodian company.”

The project demonstrated the viability and benefits of the technology, and a national strategy for Cambodia now envisages utilizing at least 50 per cent of waste agricultural biomass as a source of energy by 2025, and at least 70 per cent by 2030, through building the required infrastructure and developing human resources.

“The successful implementation of the waste biomass-fired heating has provided us with great motivation to strive to be a more environmentally friendly and socially responsible company.”

Keo Mom, CEO of LYL Food Ltd



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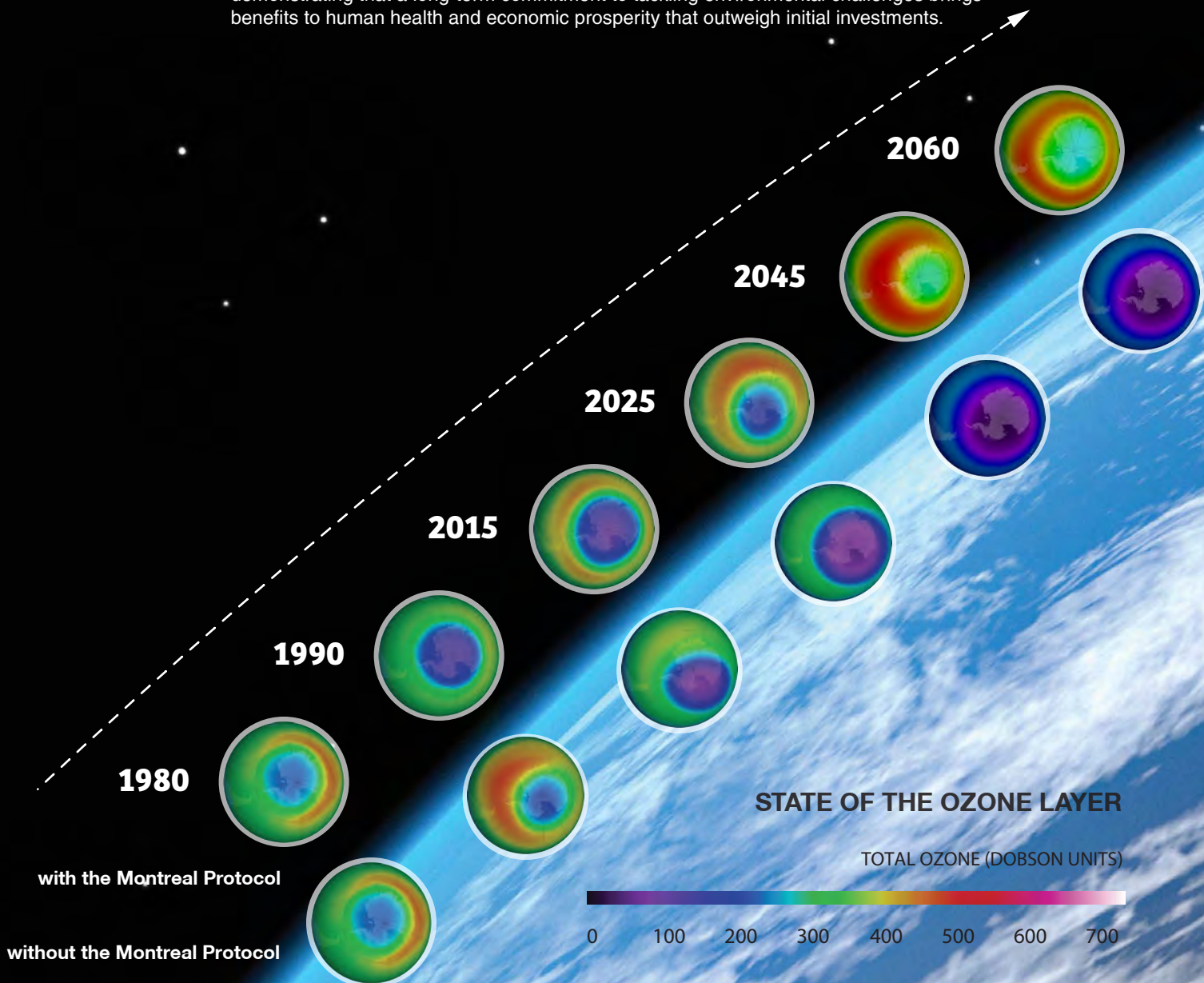
04



05

LONG-TERM INVESTMENT, LONGER-TERM GAIN: THE MONTREAL PROTOCOL

In 1974, Nature magazine published research by two scientists unveiling the link between man-made chemicals and the degradation of the Earth's ozone layer—the shield that protects all life from harmful ultraviolet radiation. Fifteen years later, the Montreal Protocol came into force and began the long task of repairing the ozone layer by phasing out ozone-depleting substances. In 2014, a report by UNEP and the World Meteorological Organization, Scientific Assessment of Ozone Depletion 2014, confirmed that the ozone layer is healing and will return to pre-1980 levels by mid-century, demonstrating that a long-term commitment to tackling environmental challenges brings benefits to human health and economic prosperity that outweigh initial investments.





HEALTH BENEFITS

According to new models released by the United States Environmental Protection Agency, the Montreal Protocol and its amendments provide the following health benefits for those born between 1890 and 2100 in the United States:

- 283 million cases of skin cancer prevented, 8.3 million of which are melanoma.
- 1.6 million deaths from skin cancer prevented.
- 46 million cases of cataracts prevented.

At a global level, up to 2 million cases of skin cancer may be prevented each year by 2030, along with additional avoided cataracts cases.



CLIMATE BENEFITS

The Montreal Protocol has so far averted estimated emissions of over **135 billion tonnes** of CO₂ equivalent.

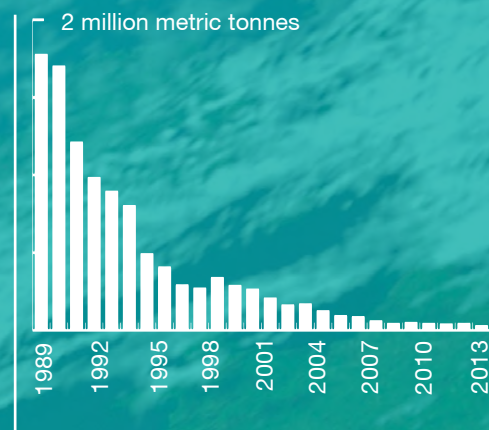


ECONOMIC BENEFITS

Among the economic benefits of the Montreal Protocol are savings in healthcare costs. Reducing the number of skin cancer cases could save **billions of dollars** across the globe. In the United States alone, research published by the Centers for Disease Control and Prevention in November 2014 revealed that the average cost of treating **4.9 million adults** for any skin cancer each year reached **\$8.1 billion** between 2007 and 2011.

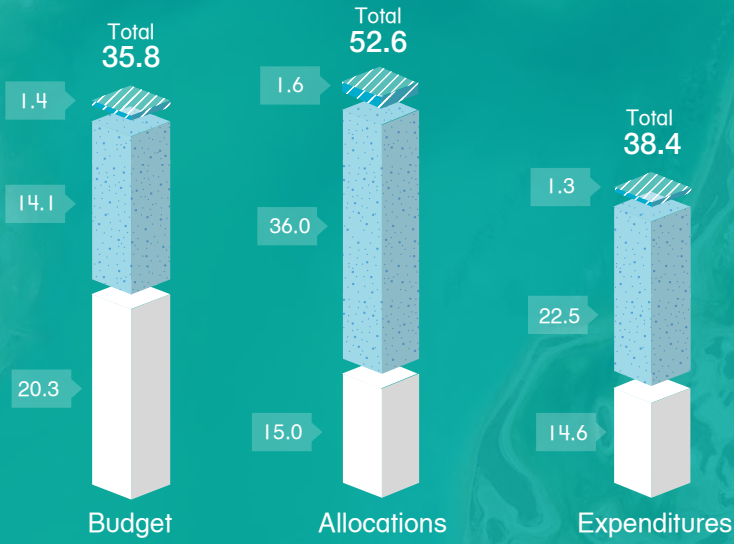


CONSUMPTION OF OZONE-DEPLETING SUBSTANCES



2014 EXPENDITURES

*Amount in US\$ Millions



Environment Fund

Trust Funds and Earmarked Contributions

Regular Budget

Note: Figures are preliminary as the final year figures are pending audited financial statements

RESOURCE EFFICIENCY

Accelerating the Transition to Resource-Efficient Societies

Global society is already struggling to manage the planet's natural resources. Escalating resource use is causing significant environmental degradation and depletion of key natural resources, impacting long-term economic growth and sustainability, and contributing to global inequalities. With the population set to grow from seven to 9 billion by 2050, and global urbanization levels to reach 70 per cent, planetary resources will come under increasing pressure under current consumption and production processes, demands of a growing middle class, expanding cities and building construction and the need for enhanced services and infrastructure development. UNEP's Resource Efficiency sub-programme aims to promote sustainable natural resource use so that well-being and prosperity can be achieved within the Earth's ecological constraints and capacities.

In north-central Kazakhstan lie a series of ponds and lakes connected by the Nura River. In the west is Lake Tengiz, a salt lake with no outlet and fluctuating depth.



01



- 01 Forest conservation can bring multiple green economy benefits
- 02 Employees of Natura Brazil, which selects suppliers on sustainability criteria
- 03 Mongolia aims to conserve its stunning landscapes by switching to a greener, less resource-driven economy

Sustainable Consumption and Production (SCP), which beats at the heart of UNEP’s resource efficiency and green economy work, has gained traction in recent years, and 2014 saw even greater momentum. SCP was high on the agenda as over 100 nations gathered for the first-ever United Nations Environment Assembly in June; as a result of UNEP’s active involvement in the drafting of the Sustainable Development Goals, a stand-alone goal on SCP (Goal 12) is paving the way for global and concerted action.

UNEP and partners have been busy laying the foundations for this action, and in 2014 a multi-stakeholder platform that aims to empower the world to accelerate the transition to SCP patterns kicked off its first four programmes. The Secretariat of the Ten-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP), hosted by UNEP, launched its Sustainable Public Procurement, Consumer Information, Sustainable Tourism, and Sustainable Lifestyles and Education Programmes—which are engaging 143 governments, non-governmental organizations and business associations. Programmes on Sustainable Buildings and Construction as well as Sustainable Food Systems are expected to be launched in early 2015.

To further support the transition to resource-efficient societies, policy makers need solid science and a better understanding of how to decouple economic growth from environmental degradation and natural resource use. UNEP helps provide this by hosting the International Resource Panel (IRP), which released three scientific assessments in 2014, including Building Natural Capital: How REDD+ Can Support a Green Economy. The report showed how an investment of \$30 billion per year—compared to the \$480 billion paid in fossil fuel subsidies—in the REDD+ forest conservation and restoration initiative can ensure the well-being of tens of millions in developing countries. Additional knowledge will come from the Green Growth Knowledge Platform (GGKP), which UNEP co-manages with the Global Green Growth Institute. The GGKP is a partnership created by the World Bank, the Organisation for Economic Cooperation and Development, GGGI and UNEP to identify and address knowledge gaps in green economy theory and practice. The partnership has expanded to over 35 leading organizations since its creation in 2012.

ECONOMIC BENEFITS OF FOREST CONSERVATION



Non-timber forest products can generate 4 million person-years of employment annually.



\$14 billion in additional international trade

Jobs will be threatened if forests are not managed sustainably.



13.7 million formal forest sector employees in 2011

Stimulating sustainable management of forests will create additional jobs.



16 million additional jobs globally

BUSINESS CASE FOR ECO-INNOVATION



By taking an eco-innovation life-cycle approach, Brazilian cosmetics firm Natura experienced average annual growth of **26 per cent** from 2005–2010, and doubled in size from 2007–2011.



The socio-environmental benefits of selecting suppliers based on high sustainability performance were worth over **\$750,000** in 2012 alone, the company said.

ADVANCING A GREEN ECONOMY

In 2008, when UNEP launched its Green Economy Initiative, only a handful of countries were engaged in the issue. Today, 65 countries have embarked on green economy and related strategies; 48 of them are developing green economy plans as part of their sustainable development strategies. The Partnership for Action on Green Economy (PAGE)—a UNEP-hosted partnership of five UN agencies—is on its way to its goal of supporting 30 countries. Mongolia adopted a national Green Development Strategy in June 2014, one year after joining PAGE, and the green economy is embedded in global discourse—for example, the third Small Island Developing States (SIDS) conference in Samoa in September 2014 endorsed the approach as an important tool for achieving sustainable development and poverty reduction.

PRIVATE SECTOR ENGAGEMENT

Small- and medium-sized enterprises (SMEs) are the social and economic backbone of most countries, and therefore a key driver of the transition to a resource-efficient economy. UNEP works with businesses through several initiatives, such as the Resource Efficient and

Cleaner Production Network (RECPnet), which saw an increase in membership from 55 to 69 in 2014 (for an example of how this helps businesses, see the feature on page 43). Eco-innovation can boost the profitability and sustainability of such businesses, and UNEP launched the Business Case for Eco-Innovation in November, highlighting benefits such as increased market access, value creation, and business growth of at least 15 per cent. RECPnet members in Africa, Asia and Latin America and the Caribbean will work with SMEs in the metals, chemicals and agri-food sectors, targeting over 40 companies.

In May, the Sustainable Buildings and Climate Initiative (UNEP-SBCI) released Greening the Building Supply Chain, which looked at how to make the building sector more sustainable. One Swedish company followed the recommendations, and changed its sourcing and selection of construction materials. UNEP also engaged with governments in ensuring more sustainable business practices, and in 2014 worked with Brazil, France, South Africa and others in assessing the impact of their corporate sustainability reporting policies.

GREEN ECONOMY IN ACTION



In April 2014, Peru joined PAGE. The Ministers of Environment and of Labour signed a declaration calling for a coordinated approach to achieve green and inclusive growth.



Saint Lucia has integrated the green economy in the drafts of National Social Protection Policy, the National Planning Framework and the National Vision Commission for 2030.



The Economic Community of Central African States established a Fund for a Green Economy, with an initial **\$3m** contribution from the Democratic Republic of Congo.





01

"UNEP, drawing on the work of UNEP FI's practitioner network and the UNEP Inquiry's work on the rules that shape the financial system, will help to advance a financial system aligned to sustainable development." David Pitt-Watson, Co-Chairman, UNEP FI

FINANCIAL SECTOR

Financing plays a key role in any global process of change, and the UNEP Finance Initiative (UNEP FI) continued catalyzing private finance for green and inclusive growth. In September, at the UN Secretary-General's Climate Summit, UNEP FI coordinated a group of investors to form the Portfolio Decarbonization Coalition, which aims to decarbonize \$100 billion of investment by December 2015. Separately, UNEP launched the Inquiry into the Design of a Sustainable Financial System to deliver innovations in financial policy, regulatory frameworks and standards that will better align the financial system to sustainable development. The two-year inquiry has undertaken work with national institutions and partners, focusing initially on Bangladesh, Brazil, China, the European Union, India, Indonesia, Kenya, South Africa, Uganda, and the United States. A third initiative was launched in October, in partnership with the International Monetary Fund and the German Agency for International Cooperation (GIZ)—the Green Fiscal Policy Network, a virtual platform that aims to facilitate knowledge sharing on fiscal policy reforms in support of countries' green economy transformation. Under the project, country studies analyzing green fiscal policy reforms have been carried out in Ghana, Mauritius, Kenya and Mozambique.



The Portfolio Decarbonization Coalition is already decarbonizing **\$30 billion** of investments.

SUSTAINABLE CONSUMPTION

Consumption patterns also require refocusing, and UNEP works with governments and businesses to put in place policies and measures conducive to more sustainable consumption patterns. Supporting Sustainable Public Procurement (SPP) strategy development and implementation at national level is one focus—public procurement, which represents above 15 per cent of gross domestic product in many countries, offers an opportunity to drive markets towards innovation and sustainability.

In 2014 UNEP engaged with 14 countries—of which 11 committed to developing SPP Action Plans by the end of 2017. As more than 50 entities have submitted project proposals on SPP under the 10YFP Trust Fund, the number of partners is set to increase significantly.

The public and retailers are targeted directly through Think.Eat.Save—a global campaign to encourage a reduction in the one-third of all food lost or wasted each year. Events took place in Barbados, China, Germany and many more countries, while a Student Challenge on food waste campaigns engaged 485 schools from 80 countries, helping to ensure the next generations join the fight to create more resource-efficient societies.

These are just some of the highlights of the sub-programme, with many more initiatives under way. For more information, please visit www.unep.org/resourceefficiency or follow UNEP on twitter.com/unep or facebook.com/unep.org



IN FOCUS

DOING 'MORE AND BETTER WITH LESS' IN GHANA'S COCOA INDUSTRY

Political stability, good governance and increasing export revenues have turned Ghana into one of the largest and fastest-growing economies in sub-Saharan Africa, and the cocoa industry has played a key role in this process.

Now the second largest exporter of cocoa in the world, Ghana employs over 800,000 smallholders in the cocoa industry, which contributed as much as 14 per cent of GDP in 2011. With the sector playing such a crucial part in the economy, the need for a sustainable cocoa industry that makes wise use of its resources and maintains profits is clear.

Resource-efficient and cleaner production methods offer a way to ensure the industry remains competitive and resilient, and Ghanaian companies are already making the transition and reaping the rewards. One such company is Niche Cocoa Industry Ltd. from the Tema Free Zone enclave.

In 2012, Niche signed up for the Resource Efficient and Cleaner Production (RECP) Programme, coordinated by the Ghana National Cleaner Production Centre, the Ghana Environmental Protection Agency and UNEP.

The Programme trained Niche's staff on low-waste production technologies, enhancing the efficient use of water, energy and raw materials, and optimizing existing technologies to improve production efficiency levels. Since joining RECP, Niche has managed to reduce its waste by 60 per cent.

Only in its fourth year of operation, Niche Cocoa Industry has almost doubled its operational capacity, produces over 40,000 metric tonnes of cocoa products per annum and boasts 350 full-time staff. Mr. Paul Ayeh, General Manager of Niche, puts much of the company's success down to judicious use of its resources.

"Our efforts in recent years to improve the company's efficiency levels and reduce waste along the production line have reduced the cost of our operations and thereby increased our profitability and competitiveness, both nationally and internationally," he said.

Some of the changes that have brought about this improvement include: replacing energy-intensive machinery with new technology, such as a more efficient hammer mill for processing cocoa beans; fitting meters to monitor and reduce gas usage; recycling wastewater; and undertaking a Free Fatty Acids (FFA) analysis to save on butter in the production process.

"In addition to making Niche more competitive, I think the most rewarding and important long-term goal of what we are doing is to protect the environment," said Belinda Lawson, Environmental Health and Safety Manager at Niche. "Employing cleaner production measures in my work is a motivation. I know I am contributing to Ghana's future."

Niche's commitment to reducing waste has also benefited the surrounding environment and communities where Niche operates. Thanks to the installation of extraction systems along the production line, which prevent particulate matter entering the environment, and the introduction of a new system of recycling chemical reagents used in the production process, Niche has reduced the company's contribution to water and air pollution in the area.



02



03

01 Sustainable buildings, such as the UN City in Copenhagen, have a key role to play in the transition to a green economy

02 Ghana employs over 800,000 smallholders

03 A Ghanaian farmer holds a ripe cocoa pod

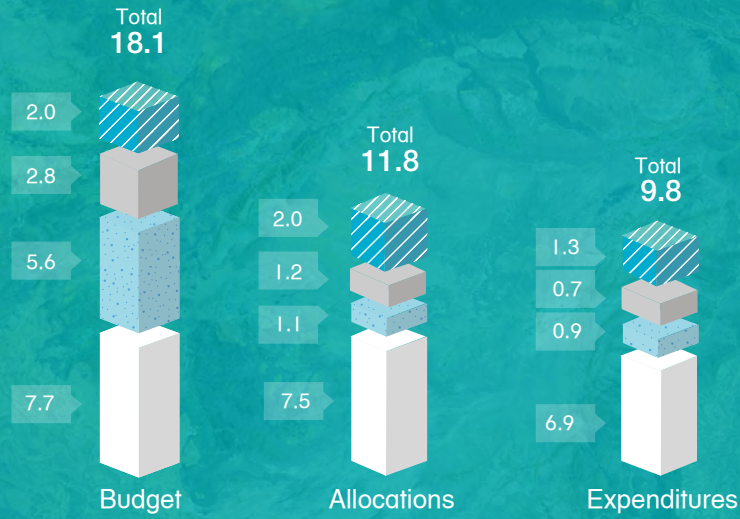
04 Ghana exported around 879,000 metric tonnes of cocoa in 2012, contributing to the prosperity of cities such as the capital, Accra



04

2014 EXPENDITURES

*Amount in US\$ Millions



Environment Fund
 Trust Funds and Earmarked Contributions
 Global Environment Facility

 Regular Budget

Note: Figures are preliminary as the final year figures are pending audited financial statements

ENVIRONMENT UNDER REVIEW

Promoting Evidence-based Decision Making through Integrated Knowledge

To create policies and programmes that drive sustainable development and improve human well-being, decision makers and all concerned parties need up-to-date and accurate scientific information that can be brought together and understood in a coherent and integrated manner. UNEP aims to contribute to this process by connecting to relevant open access platforms and services in order to provide timely, substantiated data and knowledge about the environment and emerging issues that strengthens decision making.

The sub-programme builds on existing investments and efforts, successful activities, networks and partnerships, recognized good practices and comparative advantages of UNEP in the areas of data analysis and assessments.

The Anti-Atlas Mountains, part of the Atlas Mountain range in southern Morocco, Africa. The region contains some of the world's largest and most diverse mineral resources, most of which are still untouched.

“We have so much knowledge now that the frontiers for action are sometimes not recognized quickly enough simply because of the complexity, the diversity, and the volume of data.”

Achim Steiner, UNEP Executive Director

Environment Under Review is UNEP's newest sub-programme, designed to strengthen and ramp up UNEP's vital role in providing the global community with the science and knowledge required to build a sustainable future, through key initiatives such as UNEP Live and the Global Environment Outlook.

With the advent of big data, the task of making sense of the complex, inter-related and abundant socio-economic and environmental data and information from multiple sources can easily become overwhelming. UNEP Live, launched in early 2014, provides a nimble platform that allows users to weave together the many threads into an integrated tapestry that supports assessments of the state, trends and outlooks of the environment. The platform allows countries, researchers, communities of practice and other UNEP stakeholders to access and share data and knowledge from global, regional and national sources. Near real-time data of air quality indexes, volcanic activity, sea-level rise as well as spatial visualization of red-list species and freshwater treaties are already available. National data-sets from over 100 countries are also online. Country contributions are particularly important, as ministries, especially in developing countries, often hold vast and useful amounts of data that are not easily accessible.

AFRICA MOUNTAINS ATLAS

Africa is endowed with many dramatic landscapes, including impressive mountains that rise above its plains: from the iconic snow-capped Mount Kilimanjaro to the Atlas Mountains that border the Sahara Desert in the north. The Africa Mountains Atlas, developed in 2014 and to be released in 2015, describes the stark changes these mountain ecosystems have undergone and presents opportunities that can be seized to prevent unsustainable development of Africa's mountain ecosystems.





02

01 Dades Gorges, Morocco (31°26' N, 6°01' W). © Yann Arthus-Bertrand/Altitude Anyway

02 Tractor in a field near Bozeman, Montana, United States (45°40' N, 111°02' W). Agricultural use of nitrogen creates run-off and causes ocean dead zones.

© Yann Arthus-Bertrand/Altitude Anyway

03 Atlantic Puffin mistakes plastic for food and takes it into its burrow to feed a chick on Skomer Island, Wales Dades Gorges, Morocco (31°26' N, 6°01' W).

© Yann Arthus-Bertrand/Altitude Anyway

UNEP Live enables charting of various indicators through country and theme pages—which will include the post-2015 development agenda and Sustainable Development Goals once finalized (see feature on page 49 for more details).

HIGHLIGHTING EMERGING ISSUES

A key part of the work of Environment Under Review is to keep track of and highlight emerging environmental issues, looking to build momentum and firm action as early as possible. As such, the sub-programme is developing a unified service for emerging issues identification and analysis, embracing the latest technology. The eleventh edition of the Year Book, released during the first United Nations Environment Assembly in June as an App, revisited 10 issues flagged as emerging over the past decade—including plastic debris in the ocean, the environmental impacts of excess nitrogen and air pollution's deadly toll—and updated each topic based on new insights and action. In particular, the plastics issue demonstrates the value of UNEP's work in flagging up issues

YEAR BOOK 2014 ISSUES - NITROGEN

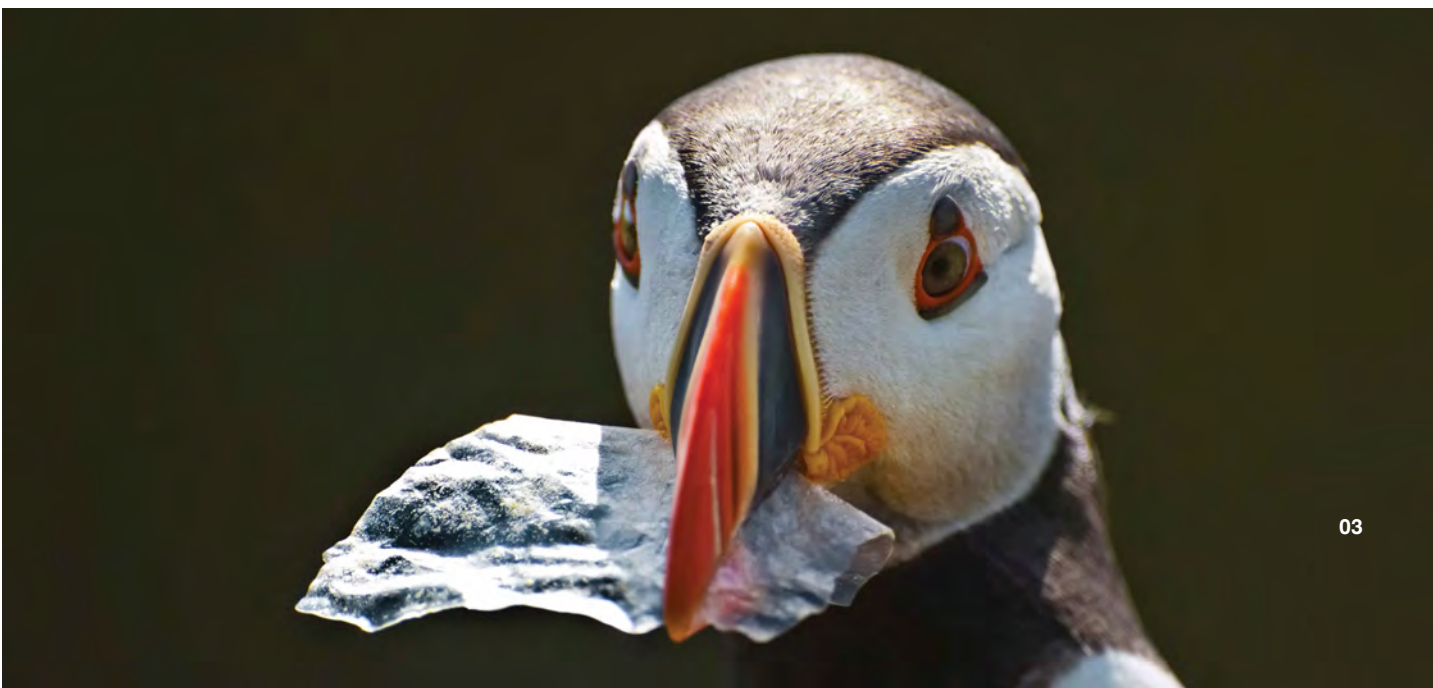
In the past 100 years, human activity has profoundly changed the nitrogen cycle: whereas nature produces annually **112 million tonnes**, humans manufacture **190 million tonnes** per year

Excess nitrogen contributes to coastal dead zones: there are over **500** known such zones, compared to **150** in 2003

A **20 per cent** improvement in global nutrient use efficiency by 2020 could save up to **\$400 billion** per year via improvements in human health, climate and biodiversity

of concern. The Year Book looked at plastics in the ocean in 2011, giving new impetus to a field of growing concern. Since then, plastic pollution of the ocean has risen far higher on the international agenda (see Ecosystem Management chapter for more information on UNEP's work on marine plastics).

The Year Book points out that a large amount of plastic waste enters the ocean from littering, poorly managed landfills, tourist activities and fisheries. This material causes entanglement of animals such as dolphins and whales, damage to critical habitats such as coral reefs, and problems when ingested. There are also concerns about chemical contamination, invasive species spread by plastic fragments, and economic damage to the fishing and tourism industries in many countries. Since the last Year Book, concern has grown over microplastics (particles up to 5 mm in diameter), which are used in consumer products such as toothpaste, gels and facial cleansers. Their ingestion has been widely reported in marine organisms, including seabirds, fish, mussels, worms and zooplankton.



IN FOCUS

THE KNOWLEDGE REVOLUTION

Presented with the universal challenges of sustainable development—of ending poverty, and protecting the planet whilst transforming the world to meet human needs and the necessities of economies—can today’s data revolution be the touchstone for global leaders to develop evidence-based courses of action?

UNEP Live enables truly integrated decision-making by weaving together the environmental and socio-economic data of the complex world we live in to create a big picture, showing not only how challenges are interlinked, but how addressing one problem can bring multiple benefits in other areas. For example, by integrating big data gathered from sensors embedded in smartphones with satellite data, UNEP Live can support governments to tackle climate change and at the same time help cities reduce premature deaths caused by air pollution.

Since its launch in 2014, UNEP Live has evolved from a source of data and knowledge into a distributed knowledge platform enabling access to live data and information about the environment all over the world. It now provides access to the latest UN data, over 150 national data systems and information on the environment, society and the economy.

It hosts seven Communities of Practice, with links to citizen science activities. It provides analysis of progress toward globally agreed environmental goals and, through a National Reporting System, enables Member States to streamline their data collection, share information, develop indicators, and report to multilateral agreements.

In a first step towards delivering “SDG Live”, UNEP is introducing a new generation of integrated indicators, which link different contexts and areas of knowledge to underpin the Sustainable Development Goals (SDGs) and feed into UN-wide efforts on targets and indicators for the SDGs. The design is aimed at supporting multiple policy targets with a small set of indicators that can track improvements and changes in outcomes and underlying causes. UNEP Live now has visualization tools to show the relationships between indicators of the natural environment, human well-being, society and the economy.

A second step is to keep the world and global leaders informed about the post-2015 agenda. UNEP Live provides daily information drawn from the news, social media, non-governmental organizations and business community on what is being discussed and written about the environment, making it both transparent and accessible in all UN languages.

UNEP Live is not only providing greater access to data and emerging knowledge through collaboration with more people globally and partnerships with more organizations, but is also enhancing data literacy throughout the world.

These are just some of the highlights of the sub-programme, with many more initiatives under way. For more information, please visit www.unep.org/environmentunderreview or follow UNEP on twitter.com/unep or facebook.com/unep.org



01



02



03

MULTILATERAL ENVIRONMENTAL AGREEMENTS

UNEP-Administered Global Conventions in 2014



CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES)

In 2014, the international community scaled up front line efforts to eradicate the illegal wildlife trade, and further raised the political profile of the issue, within the CITES framework as previous efforts began to show results in key areas.

The year started with the first public destruction of confiscated elephant ivory in China, with 6.15 tonnes of ivory crushed in Dongguan, while national ivory action plans by eight key countries of primary concern in the poaching of elephants and the illegal trade in ivory began to bear fruit. For example, the number of seizures made in Africa rose—with 80 per cent of large-scale ivory seizures occurring in Kenya, Uganda, and the United Republic of Tanzania. National ivory action plans for a further 11 countries were called for by the CITES Committee.

Another key step forward came in September, when CITES international trade regulations for five shark species and all manta ray species—including their meat, gills and fins—entered into force after a global collective effort to prepare CITES Parties for these new listings.

Many events also took place to bolster the political will to tackle wildlife crime. The London Conference on the Illegal Wildlife Trade, hosted in London mid-February by the UK government and the British Royal Family, brought together high-level representatives from 46 countries and 11 international organizations to recognize the detrimental economic, social and environmental consequences of the illegal trade in wildlife. On March 3, the anniversary of the 1973 adoption of CITES, people around the world celebrated UN World Wildlife Day for the first time—including in Geneva, where the Wild and Precious exhibition, featuring photos by renowned nature photographers, was unveiled at the Palais des Nations in the presence of many dignitaries.

In late April, over 300 scientific experts gathered for meetings of the CITES Animals and Plants Committees in Veracruz, Mexico, and expressed concern about the sustainability of international trade in a number of species, including polar bears, pangolins, tortoises and turtles, and butterflies.



01 Elephants in the Okavango Delta, Botswana (19°26' S, 23°03' E). CITES plays a key role in reducing the illegal killing of elephants. © Yann Arthus-Bertrand/Altitude Anyway

02 Flight of pink flamingos, Ouargla (24°00'N, 8°00'E). The CMS works to conserve migratory species and their corridors © Yann Arthus-Bertrand/Altitude Anyway



CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

The 11th Meeting of the Conference of the Parties (COP) in November 2014, in Quito, Ecuador was the largest in CMS history. Thirty-one species were added to the CMS Appendices with a clear focus on sharks, rays, and sawfish. The world's largest apex predator, the polar bear, was added to Appendix II. In addition, the Cuvier's Beaked Whale, Red-fronted Gazelle, White-eared Kob, European Eel, and five species of birds (the Semipalmated Sandpiper, Great Knot, European Roller, Great Bustard, and Canada Warbler) were listed.

The COP adopted resolutions to address threats to migratory species, such as marine debris, and for the first time the importance of "cetacean culture" was recognized in conservation policy. Countries also agreed to stop the live capture of cetaceans. A key success came when nations agreed to take action against illegal hunting, which threatens migratory birds. Poisoning of migratory birds will be addressed by phasing out lead shot over the next three years.

Poaching, habitat degradation and barriers to migration resulting from large infrastructure also pose increasing threats to migratory wildlife in Central Asia. The Central Asia Migratory Mammal Initiative was adopted to protect 15 large mammal species (including the snow leopard and Asiatic cheetah) in a region that hosts one of the largest intact ecosystems in the world. Additionally, tailored action plans were designed for marine turtles in the Pacific and the largest wild sheep, the Argali. The Saker Falcon Global Action Plan, which involves falconers for the first time in an initiative of this sort, was adopted.

World Migratory Bird Day partnered with the UN World Tourism Organization under the theme 'Destination Flyways: Migratory Birds and Tourism'. CMS and the African-Eurasian Migratory Waterbird Agreement organized a benefit concert in Bonn, Germany as their contribution to global celebrations.

Finally, CMS welcomed the Kyrgyz Republic as the 120th Party in the year of the Convention's 35th anniversary.



Convention on
Biological Diversity

CONVENTION ON BIOLOGICAL DIVERSITY

The 12th Meeting of the Conference of the Parties to the CBD (COP 12) and the first meeting of the Conference of the Parties serving as the Meeting of the Parties to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (COP-MOP 1) convened in Pyeongchang, Republic of Korea, in October.

At COP 12, governments agreed on the financial resources to support achievement of the Strategic Plan, reaffirming their agreement made at COP 11 to double biodiversity-related international financial resource flows to developing countries, in particular least developed countries and Small Island Developing States, as well as countries with economies in transition, by 2015, and at least maintain this level until 2020. Governments also agreed to increase domestic financing for biodiversity and identified a set of actions to allow the increased mobilization of financial resources from all sources. COP 12 also saw the launch of the fourth edition of the Global Biodiversity Outlook, which indicated that while progress was being made in conserving biodiversity, governments needed to increase their efforts.

Key decisions—including those on resource mobilization, capacity building, scientific and technical cooperation linking biodiversity and poverty eradication, and on monitoring of the Strategic Plan—formed the "Pyeongchang roadmap for the enhanced implementation of the Strategic Plan and achievement of the Aichi Biodiversity Targets". These actions will increase support for countries and stakeholders to implement their National Biodiversity Strategies and Action Plans. These decisions were bolstered by the Gangwon ministerial declaration to link implementation of the post-2015 development agenda to other relevant processes such as the UN Development Assistance Framework and National Biodiversity Strategies and Action Plans.

The meeting also adopted decisions related to COP-MOP 1 of the Nagoya Protocol, which entered into force in 2014. The Seventh meeting of the Conference of the Parties serving as the Meeting of the Parties to the Cartagena Protocol on Biosafety agreed on various actions to advance implementation of the Cartagena Protocol. These included a decision inviting governments and other stakeholders to use the Guidance on Risk Assessment of Living Modified Organisms in cases of risk assessment and as a tool for capacity-building activities in risk assessment.

01

THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER

While science published in 2014 showed the ozone layer is on track to recovery, demonstrating the efficacy of almost 30 years of hard work under the Montreal Protocol (see pages 36 and 37 for details), the Protocol kept up the pace by targeting the remaining ozone-depleting substances (ODSs).

During the Joint 10th Meeting of the Conference of the Parties to the Vienna Convention and the 26th Meeting of the Parties to the Montreal Protocol in Paris in November 2014, parties committed funds of \$507 million to the Multilateral Fund for the Implementation of the Montreal Protocol for the 2015–17 triennium to ensure the continued phase-out of hydrochlorofluorocarbons (HCFCs) in developing countries.

During the meeting, the 197 Vienna Convention and Montreal Protocol parties also agreed to address the management of hydrofluorocarbons (HFCs) in a workshop and an additional meeting of the Open-ended Working Group (OEWG) of the Parties to the Montreal Protocol in April 2015. HFCs are used in refrigerant and air conditioning equipment as a replacement for ODSs, HCFCs and chlorofluorocarbons. However, HFCs have high global warming potential.

The first workshop on the management of HFCs was convened in July 2014 and attended by more than 300 participants who discussed financial, legal, technical, policy and technology transfer issues associated with managing HFCs to bring out the key concerns of all stakeholders, including industry associations from various regions.

Under the Vienna Convention, the parties stepped up their support for systematic observation of atmospheric parameters, both ozone and climate whenever possible, and capacity-building in developing countries.

Another significant landmark was reached in December 2014, when Mauritania ratified the Beijing Amendment, which tightened controls on HCFCs. This means that the Montreal Protocol and its four amendments have now been universally ratified, demonstrating the truly global participation in the work of the Montreal Protocol.



01 A Copper shark - Port St. Johns, South Africa. Many species of shark are protected under UNEP-hosted conventions.

02 The Upper Atmosphere Research Satellite gathers data related to the chemistry, dynamics, and energy of the ozone layer.

03 The BRS conventions jointly regulate the sustainable management of potentially harmful chemicals and waste.



03



BASEL CONVENTION



ROTTERDAM CONVENTION



Stockholm Convention

BASEL, ROTTERDAM, AND STOCKHOLM CONVENTIONS

As parties prepare for the Triple Conferences of Parties (COPs) in May 2015, a look back on 2014 shows a productive year for the Basel, Rotterdam, and Stockholm Conventions, which are managed jointly by the Food and Agriculture Organization (FAO) and UNEP. Highlights include a host of implementation tools developed and tested across the globe, which together build capacity for the sustainable management of chemicals and waste. Also reinforced was the importance of the science-policy interface in environmental decision-making, which forms the theme of the upcoming COPs: From Science to Action: Working for a Safer Tomorrow.

In particular, the three conventions have taken significant steps to support and facilitate Parties' efforts towards environmentally sound management of chemicals and wastes, with important draft products ready for approval at the COPs under the Basel Convention, a series of technical guidelines for the environmentally sound management of hazardous wastes have been developed. These include revised guidelines for transboundary movements of e-waste, updated guidelines for mercury waste, and a series of new or updated guidelines on Persistent Organic Pollutants (POPs). The Basel Convention also developed an updated manual for the implementation of the Convention, and guidance on the development of inventories of hazardous waste, control systems and how to take back illegally trafficked shipments of wastes.

The Persistent Organic Pollutants Review Committee of the Stockholm Convention recommended the listing of three new chemicals, namely chlorinated naphthalenes, hexachlorobutadiene, pentachlorophenol and its salts and esters, while the Chemicals Review Committee of the Rotterdam Convention recommended the listing of trichlorfon, methamidophos, and fenthion formulation, in addition to paraquat dichloride formulation and chrysotile asbestos; all of which will be considered at the meetings of the COPs in May 2015.

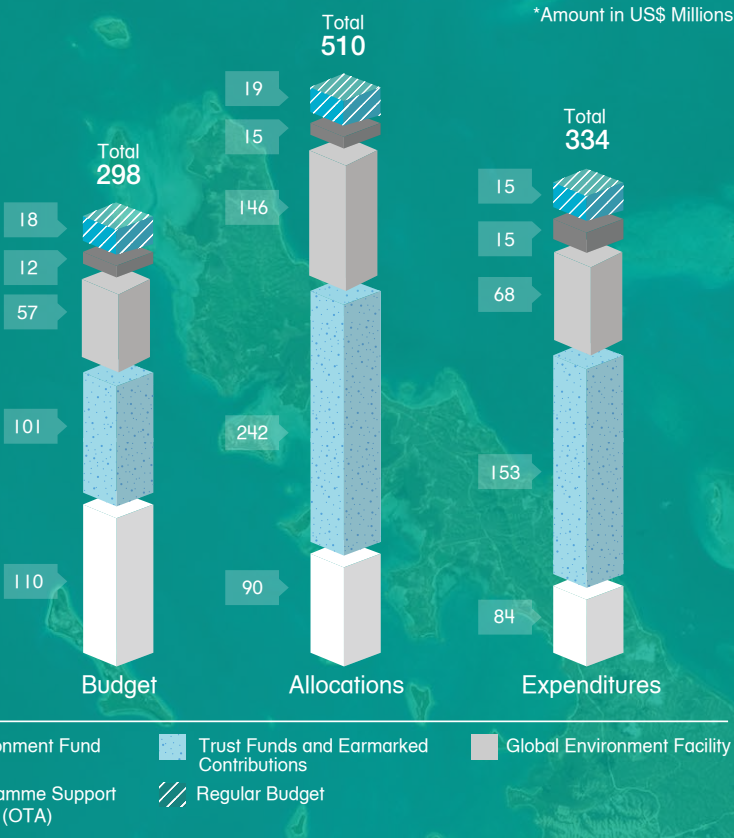
Of equal importance is sufficient capacity at national and regional levels to implement the Conventions. The Secretariat's Technical Assistance programme nearly doubled its impact during 2014, with a total of 1,100 participants benefitting from global webinars that focused on all aspects of implementation, best practices, reporting, scientific issues, and more. Some 535 participants took part in face-to-face training sessions, whilst the 14 Basel and 16 Stockholm Regional Centres, and FAO Regional Offices, delivered awareness raising and capacity-building activities to global audiences. The Regional Centres also carried out ten pilot projects on environmentally sound management of hazardous wastes, and the elimination of POPs.

UNEP also administers many regional conventions, on land and sea, which are covered in the relevant sub-programme chapters.

FINANCIAL PERFORMANCE

2014 EXPENDITURES

*Amount in US\$ Millions



Note 1: Figures are preliminary as the final year figures are pending audited financial statements
 Note 2: The overall figures include Executive Office and Office for Operations costs in addition to the programme of work. Please refer to the 2014 Programme Performance Report for a more detailed breakdown.
 Note 3: 2014 budget allocations have exceeded planned budgetary figures mainly due to Global Environment Facility and earmarked projects disbursements that were in the pipeline, unspent fund balances brought forward from the previous biennium and higher than planned resource mobilization for 2014 related to earmarked projects. Despite exceeding the targeted budget, demand for UNEP services outstripped the financial resources to deliver support to member states. This is in part because funding for multi-year projects has been recorded as income for the biennium in which it is received, while in reality it is to be utilized over the life of the projects, which often exceed or overlap a biennium.

DONOR CONTRIBUTIONS

Behind each step UNEP takes in caring for the environment and inspiring positive change, there is support from donors and partners who believe in our vision of a life of dignity for all on a healthier planet, and put their trust in UNEP's work.

The outcome of Rio+20 in 2012 highlighted the global responsibilities of every government in every part of the world towards the environment. World leaders committed to universal membership for the environmental authority of the UN and a stronger financial foundation built upon the principles of secure, stable, adequate and increased financial resources. This foundation is paramount for UNEP, as it is 95 per cent funded by voluntary contributions.

In 2014 UNEP received \$381 million in funding in direct support of its Programme of Work. Two main sources, the United Nations Regular Budget and the Environment Fund, increased from the previous year in line with the commitments made at the Rio+20 summit. Earmarked contributions remained the largest source of funding.

The Environment Fund saw the return of previously strong supporters, such as Italy, and a number of contributions over and above the expected level, most notably from Czech Republic, the Bahamas, and the Republic of Congo. The highest contributions this year came from the Netherlands, Germany, and Finland. These donors are appreciated supporters of the very foundation of UNEP's finances.

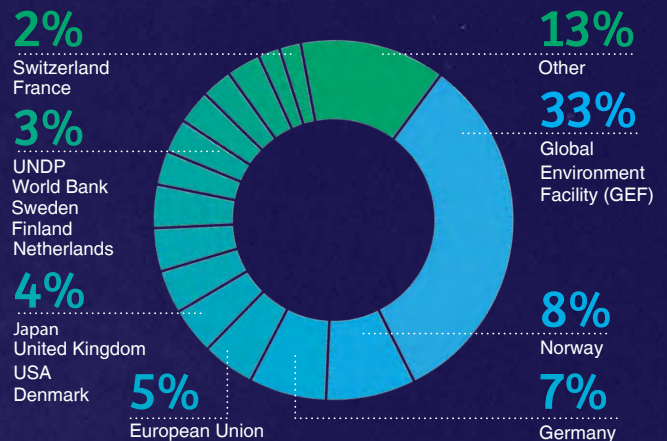
The proportion of the United Nations Regular Budget received by UNEP more than doubled from last year, thanks to a courageous decision by the General Assembly in a general context of austerity. This increased funding will facilitate the much called for strengthening of UNEP's regional presence and headquarters in Nairobi.

The shift towards funding through the Environment Fund and the United Nations Regular Budget, in particular, enables UNEP to apply resources where they are needed the most and focus increasingly on activities. The United States and Japan collectively contribute approximately one third of the UN Regular Budget.

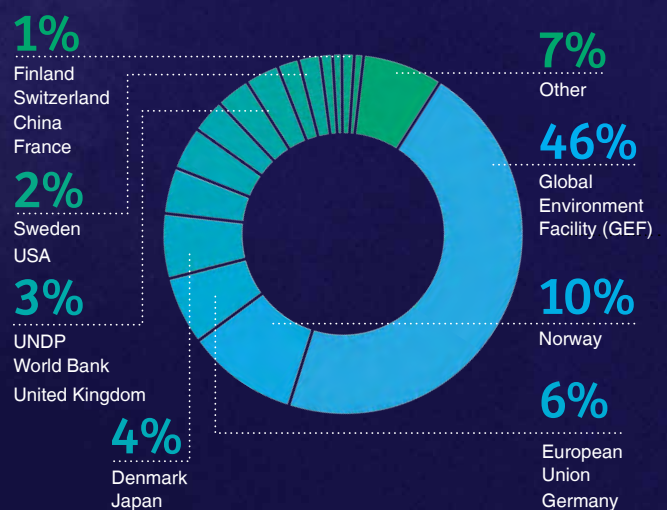
Combining the different sources of funding, the three top government supporters were Norway, Germany, and Denmark. The three top institutional donors were the Global Environment Facility (GEF), the European Union and the World Bank. Their continued strong support is a testament to the importance of UNEP's work.

UNEP would like to thank all the valued donors and partners and encourage those in a position to do so to join them. Looking forward to 2015, there is no room for complacency. We will continue to strive for timelier receipt and a better balance of resources as we strengthen UNEP's ability to drive the global environmental agenda.

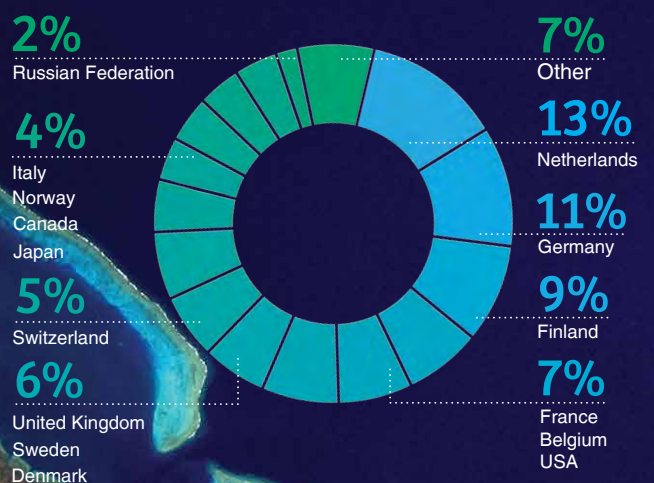
TOP 15 ALL SOURCES



TOP 15 EARMARKED



TOP 15 ENVIRONMENT FUND



CHAMPIONS OF THE EARTH

Eight innovators and policymakers whose service to the environment is saving lives, improving livelihoods and strengthening environmental governance and conservation were announced as recipients of the United Nations highest environmental accolade, the Champions of the Earth Award, at a high-level Award Ceremony led by UN Secretary-General Ban Ki-moon in November.

For their unparalleled dedication and lifetime commitment to the environment, **Sylvia Earle**, Ocean Explorer and Conservationist, and **Mario Molina**, Nobel Laureate and Renowned Ozone Scientist were among those recognized as 2014 Champions of the Earth. Other winners were: **H.E. Tommy Remengesau, Jr.** President of Palau, **Susilo Bambang Yudhoyono**, Sixth President of Indonesia, the **U.S. Green Building Council**, **Sir Robert Watson**, Eminent Environmental Scientist, **Boyan Slat**, Founder of The Ocean Clean-up Initiative, and **Fatima Jibrell**, Founder of Adeso.

“Our 2014 Champions of the Earth are outstanding environmental leaders, thinkers and achievers who have stood up to be counted and have often challenged the status quo to show us the way towards a sustainable future,” said UN Under-Secretary-General and UNEP Executive Director, Achim Steiner.

“These Champions and their stories of dedication and environmental leadership must inspire us all to take on the toughest environmental challenges and to push the boundaries of human endeavour to safeguard the future of our planet.”

Launched in 2005, Champions of the Earth recognizes outstanding visionaries and leaders in the fields of policy, science, entrepreneurship, and civil society action. Whether by helping to improve the management of natural resources, demonstrating new ways to tackle climate change or raising awareness of emerging environmental challenges, Champions of the Earth serves as an inspiration for transformative action across the world.

Past laureates have included Mikhail Gorbachev, Al Gore, Felipe Calderon, Mohamed Nasheed, Marina Silva, Vinod Khosla, and many other such exemplary environmental leaders.

The Channel Tunnel is a 50.5km-long rail tunnel beneath the English Channel at the Straits of Dover. It connects Dover, Kent in England with Calais, northern France.



Sylvia Earle
Ocean Explorer and Conservationist for developing global “hope spots” to safeguard the living systems underpinning global processes that maintain biodiversity

Susilo Bambang Yudhoyono
Former President of Indonesia, for becoming the first president from a major developing country to voluntarily pledge to reduce greenhouse gas emissions

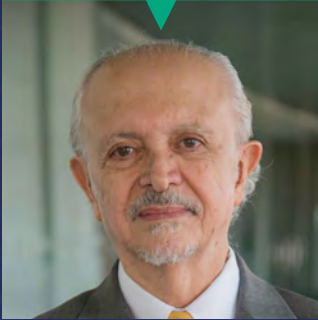


Mario Molina
Nobel Laureate and Renowned Ozone Scientist for spearheading one of the most significant climate-related global agreements ever made

Boyan Slat
Founder of The Ocean Clean-up Initiative for his quest for a solution to the worsening and global problem of plastic debris in our oceans



Fatima Jibrell
Founder of Adeso (formerly Horn Relief) for building environmental and social resilience amidst war and devastation



Sir Robert Watson
Eminent Atmospheric Scientist for promoting the science behind ozone depletion and global warming



U.S. Green Building Council for changing how we design living spaces and transforming buildings towards sustainability



H.E. Tommy Remengesau, Jr.
President of Palau for strengthening the economic and environmental resilience of Palau by spearheading national policies to protect biodiversity

“Our 2014 Champions of the Earth are outstanding environmental leaders, thinkers and achievers who have stood up to be counted and have often challenged the status quo to show us the way towards a sustainable future.”

UNEP Executive Director Achim Steiner



GOODWILL AMBASSADORS

UNEP's 12 Goodwill Ambassadors and Patrons in 2014 used their fame and prodigious talents to raise awareness of, and prompt action on, a variety of environmental issues, from climate change to the illegal wildlife trade to marine protection.

Ian Somerhalder, of Vampire Diaries fame, was designated as the newest Goodwill Ambassador in Barbados, the global host of World Environment Day (WED), in June. Ian, model Gisele Bündchen, actor Don Cheadle and footballer Yaya Touré joined forces to send an SOS to the world on behalf of Small Island Developing States (SIDS). They asked their supporters to pledge WED actions in support of SIDS, which are particularly vulnerable to climate change.

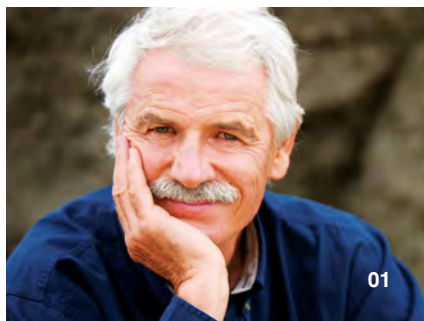
Actress Li Bingbing continued her work in urging the public not to buy ivory products and spoke at the opening of the UN Secretary-General's September summit on climate change to remind world leaders of the need for urgent action.

Yaya Touré also took time out from his footballing commitments to film a video, "We've Got Your Back", with other footballers and actor Idris Elba, to build trust in healthcare workers battling Ebola in West Africa.

Lewis Pugh, UNEP's Oceans Patron, completed the arduous task of carrying out 7 long-distance swims in all 7 seas within one month, which he undertook to highlight the need for more Marine Protected Areas and to conserve the ocean for future generations.

Photographer Yann Arthus-Bertrand contributed many of his stunning images for UNEP's Wild and Precious exhibition on environmental crime, while Lebanese singer and television personality Ragheb Alama promoted UNEP's work on social media and in many television appearances.

All of the other Ambassadors and Patrons played their parts, and UNEP would like to express its appreciation for the commitment of all 12 to changing public attitudes to the environment.



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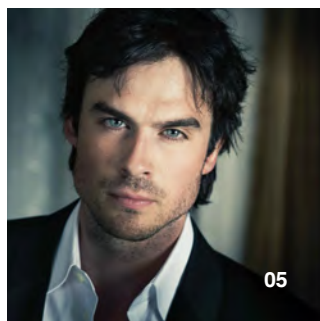
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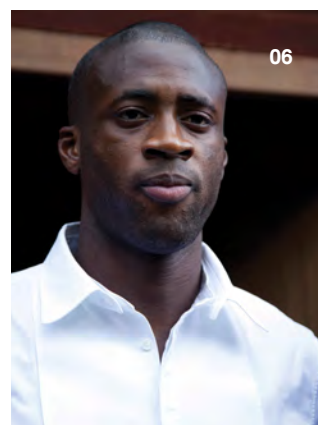
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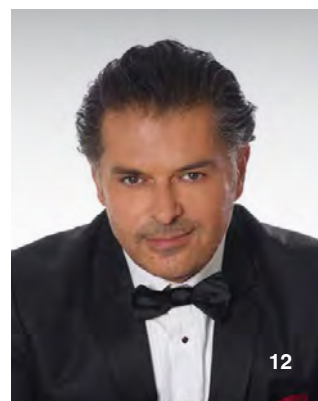
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12

- 01 Yann Arthus-Bertrand – Goodwill Ambassador
- 02 Li Bingbing – Goodwill Ambassador
- 03 Gisele Bündchen – Goodwill Ambassador
- 04 Don Cheadle – Goodwill Ambassador
- 05 Ian Somerhalder – Goodwill Ambassador
- 06 Yaya Touré – Goodwill Ambassador

- 07 Pavan Sukhdev – Goodwill Ambassador
- 08 Patrick Makau – Patron for Clean Air
- 09 Lewis Pugh – Patron for Oceans
- 10 Eric Wainaina – Goodwill Ambassador, Kenya
- 11 Suzanna Owiyo – Goodwill Ambassador, Kenya
- 12 Ragheb Alama – Goodwill Ambassador, Arab Region

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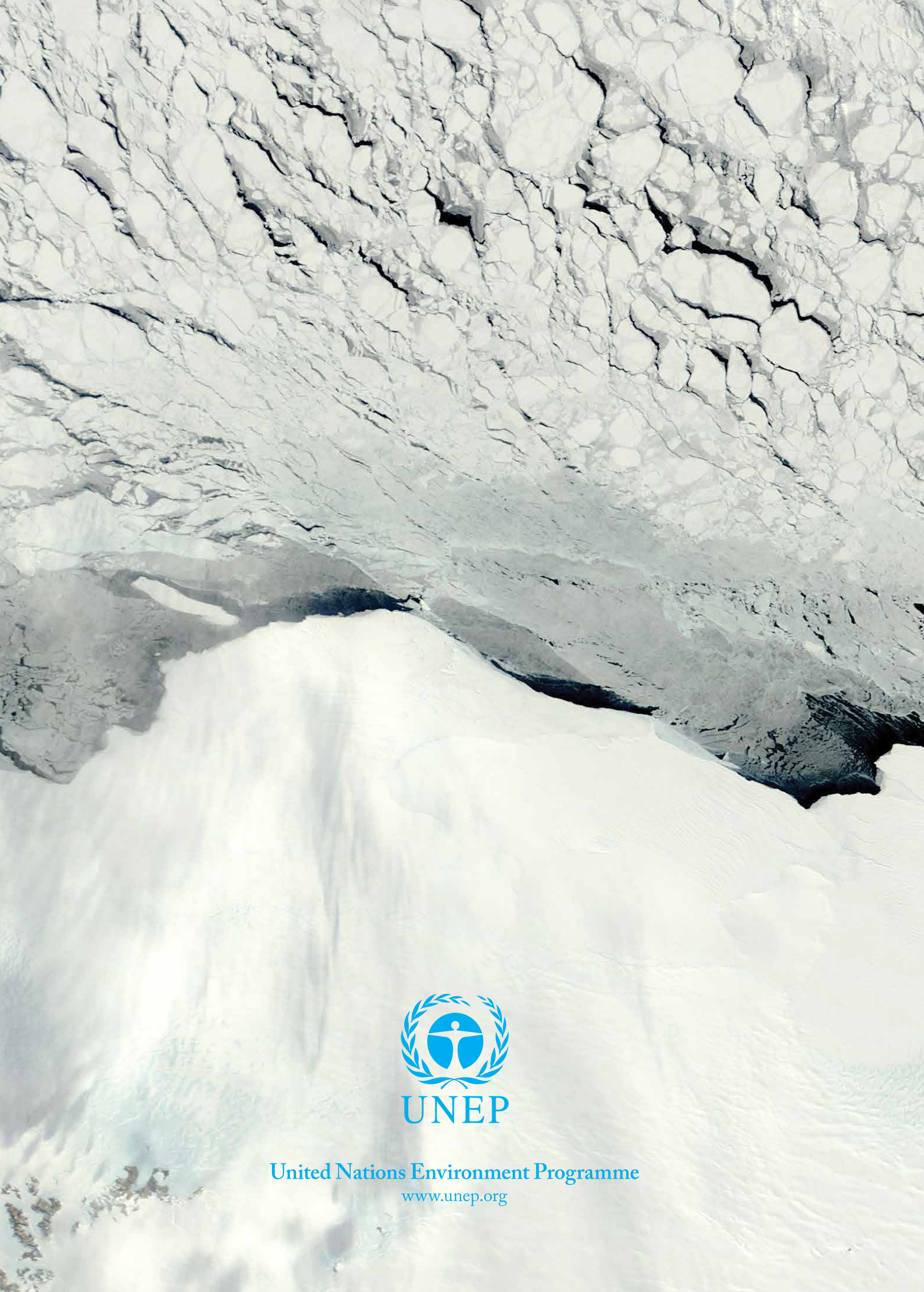
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