

**UNITED NATIONS  
ENVIRONMENT PROGRAMME**

The background of the cover is a dark, silhouetted tree against a twilight sky. From the center of the tree, numerous bright green laser beams radiate outwards in all directions, creating a starburst effect. The beams vary in length and intensity, some ending in soft, glowing halos.

**ANNUAL  
REPORT  
2015**



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\* All dollar (\$) amounts refer to US dollars.

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

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**Cover photo by Tatiana Clauzet**

Image taken in the Cerrado, a vast tropical savanna ecoregion of Brazil, showing a bioluminescent termite mound. The phenomenon is the result of firefly larvae nesting in the holes to attract the winged termites coming out of the nest.

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## A VICTORY FOR THE CLIMATE IN PARIS

**On 12 December 2015, at the 21st meeting of the Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change, 195 countries adopted the Paris Agreement, one of the most important international agreements in history.**

In doing so, they recognized the severity of climate change, acknowledged its dramatic costs and committed to take action to stay well below a 2°C global temperature rise. UNEP has worked for decades to support climate action – bringing science to policymakers, and helping communities around the world adapt to climate change.

We look forward to working with our partners to put the Paris Agreement into action and prompt stronger and wider action. We will do this through supporting the expansion of renewable energy and energy efficiency technologies, promoting fuel efficiency measures, guiding the world toward sustainable consumption and production patterns, and helping countries adapt to a changing climate

### **Specific UNEP contributions to COP 21 and the Paris Agreement**

Assisted **36 countries** who submitted Intended Nationally Determined Contributions (INDCs) to develop and complete their plans.

Mobilized institutional investors, who promised to **decarbonize \$600 billion** of investments (see page 12 for more details).

Helped facilitate over **\$10 billion in pledges** to the Africa Renewable Energy Initiative (see page 12 for more details).

Through the Global Adaptation Gap Report 2014, contributed to **97 countries including adaptation components** in their INDCs.

Partnered with the COP Presidency on launching the Global Alliance for Buildings and Construction. **22 countries and 60 organizations joined the alliance**, which UNEP will host.

Helped countries make links between climate science and policy (see page 11

The slogan “Decarbonize” is projected on the Eiffel Tower as the international community signs up to a universal climate agreement. © AFP/ Charles Platiau

**UNEP  
MOBILIZED  
INSTITUTIONAL  
INVESTORS  
WHO PROMISED TO  
DECARBONIZE  
\$600 BILLION  
OF INVESTMENTS**

for details on the Emissions Gap Report as an example).

Partnered in engaging non-state actors, a key pillar of the COP Presidency. Non-state actors are crucial to delivering emissions reductions, especially in the four years before the Paris Agreement enters into force.

## MESSAGE FROM BAN KI-MOON UN SECRETARY-GENERAL



**The final months of 2015 saw two inspiring advances for humankind and victories for multilateralism: in September, the adoption of the 2030 Agenda for Sustainable Development, and in December, the Paris Agreement on climate change.**

These new agendas put forth a universal, integrated and transformative vision for a better world. World leaders have promised to pursue shared prosperity, peace and partnership, and they have recognized the fundamental importance of protecting the planet in order to meet our ambitions.

As the voice of the environment for the United Nations system, UNEP has been a key player in bringing us to this realization. For more than four decades, UNEP has uncovered and highlighted the science on how a healthy, functioning environment is central to a sustainable future. It has offered many solutions to the challenges we face, from mitigating and adapting to climate change to transforming unsustainable consumption and production practices.

Crucially, UNEP has worked closely with other UN bodies, governments at all levels, intergovernmental organizations, civil society and the private sector to drive the process of change. Such global collaboration will be essential as we strive to reach the 17 Sustainable Development Goals and bring the Paris Agreement to life. Action is needed from everyone, everywhere; we must look beyond national boundaries and short-term interests and act in solidarity for the long-term.

This Annual Report presents examples of the partnerships and global outlooks that will be critical to our future success. As we begin to implement both agendas, the world can continue to count on UNEP to help us secure lives of dignity for all on a healthy planet.

## 2015 HIGHLIGHTS FROM ACHIM STEINER UNEP EXECUTIVE DIRECTOR



**The year 2015 will be remembered as a turning point for the environmental agenda. The international community set pivotal tracks for sustainability by adopting the 2030 Agenda for Sustainable Development, the Paris Agreement on climate change, the Sendai Framework for Disaster Risk Reduction and the Addis Ababa Action Agenda on financing for development – demonstrating a unity of purpose that places us more firmly on the path to a sustainable future.**

In the 2030 Agenda, we outlined a way forward that focuses on sustainability in both the developing and the developed world. Meanwhile, through the Paris Agreement, nations acknowledged that climate change poses a threat to the security and prosperity of all societies that we can only address together.

These are victories for multilateralism, which the United Nations embodies like no other organization. They are also milestones for the environment, which UNEP has championed for over four decades – presenting cutting-edge science through the Emissions Gap and Global Environment Outlook assessments to assist nations to understand and develop their policy and management responses.

Crucially, the Sustainable Development Goals integrate environmental sustainability and social equity with economic progress. Such integration – the idea that environmental sustainability is not an impediment to, but a driver of, development and human well-being – has been a key focus of UNEP's work. As you will see in this Annual Report, initiatives such as The Economics of Ecosystems and Biodiversity (TEEB) and ProEcoServ continue to demonstrate that recognizing the tangible economic benefits of ecosystems is central to creating inclusive green economies and lifting millions of people out of poverty.

With these landmark agreements in place, we have a new opportunity to unify global agendas. Yes, we can reflect on the impressive progress we have made. But, to be clear: once the glow of these achievements fades, we must redouble our efforts. For example, we must find a way to cut an additional 12 gigatonnes of carbon dioxide equivalent from annual emissions by 2030 to give us a real chance of keeping the world below a 2°C temperature rise this century.

We can achieve our goals if we focus on solutions that drive an inclusive green economy: increased renewable energy and energy efficiency measures, conserving and expanding forest cover through initiatives such as Reducing Emissions from Deforestation and Forest Degradation (REDD), the sound management of chemicals, embedding sustainable consumption and production practices at every level of society, and assisting nations to adapt to the impacts of climate change, to name but a few. These are all areas in which UNEP, in collaboration with many inspiring partners, has led the way.

## **ENVIRONMENTAL SUSTAINABILITY IS NOT AN IMPEDIMENT TO, BUT A DRIVER OF, DEVELOPMENT.**

A simple truth is that finance is central to our aspirations. The good news is that this message has been heard across the board. For example, the international community in December pledged \$10 billion to the Africa Renewable Energy Initiative. This initiative – led by Africa and supported by UNEP and key partners in the international community – represents a step change for renewables on the continent. It will provide access to clean power to millions, minimizing greenhouse gas emissions and reducing the air pollution that claims hundreds of thousands of lives each year. This triple gain on access to energy, climate and human health is exactly the kind of result we must pursue to reach our goals. The private sector is also putting its capital behind a better future for all.

For example, under the Portfolio Decarbonization Coalition, which is led by UNEP and partners, over two dozen major institutional investors had by December 2015 committed to decarbonize over \$600 billion of assets under management. These financial steps, just examples of the many underway, represent investments that can bolster the 2030 Agenda and Paris Agreement. Now we must shed light on best practices to prompt the mainstream of our economies and markets to follow – as UNEP is doing through the Inquiry into the Design of a Sustainable Financial System, which in 2015 released its groundbreaking report on how to harness the assets of the world’s financial system for sustainability.

In this pivotal year, I could highlight many other examples of how UNEP’s work informs and facilitates a rapidly evolving public policy landscape, which in turn leverages the development of technology, finance and markets in support of globally agreed environmental goals and priorities. Instead, I invite you to browse this report and discover the breadth and scale of the achievements of this organization, which I have been privileged to lead for ten years. I hope what you read will motivate you as much as it has me, for we must all be inspired to deliver on the promises made.

Working through dozens of global initiatives and multilateral agreements, and hundreds of partnerships, and by supporting governments and communities directly, UNEP will continue to build on the successes of 2015. Through its Medium-Term Strategy and Programme of Work, it will align itself to help deliver on the 2030 Agenda and continue to convene the global environmental community to do the same.

One such opportunity will come in May 2016, when we will host the second United Nations Environment Assembly (UNEA-2) at our headquarters in Nairobi. UNEA-2 focuses on the environmental dimension of the 2030 Agenda to add further momentum to the quest for a healthy environment for healthy people.

I would like to express my gratitude to our partners across the planet, whose vision, as well as political and financial support, has enabled UNEP to rise to the challenge of making a difference. The milestones of 2015 are also an affirmation and validation of the 1972 Stockholm Conference decision to establish within the United Nations family a programme dedicated to the environment – UNEP. Over the past four decades many have worked tirelessly to turn this vision into a reality. UNEP has evolved and thrived as part of an ‘ecosystem of individuals and institutions’ – such as the United Nations family, non-governmental organizations, the scientific community, and national ministries and authorities responsible for the environment. It also succeeded in becoming the authoritative ‘voice for the environment’ because of the professionalism of its staff and the leadership of its successive Executive Directors.

I would like to take this opportunity to pay tribute to all of them – in particular to UNEP’s first Executive Director, Maurice Strong, whose passing just days before the Paris Climate Conference of the Parties provided a poignant reminder of the foundational legacy he created, upon which we have built our work and progress to date. His vision, dedication and lifelong commitment to the environment and sustainable development remain an inspiration and speak to the power of individuals to make a difference.



UNEP head Achim Steiner presents Pope Francis with an elephant made from recycled flip-flops outside UNEP’s energy-efficient offices. Pope Francis called for climate action during his visit to UNEP’s headquarters. © UNEP



# UNEP RESULTS



**20**  
COUNTRIES

**IMPLEMENTED**  
ECOSYSTEM-BASED AND  
OTHER ADAPTATION  
**APPROACHES**

**INTERNATIONAL  
COMMUNITY**



**PLEGGED**

**OVER**

**\$10 BILLION**  
TO UNEP-SUPPORTED

**AFRICA**

RENEWABLE ENERGY  
**INITIATIVE**



**25**



INSTITUTIONAL  
INVESTORS

PLEGGED TO DECARBONIZE  
**\$600 BILLION OF ASSETS**  
UNDER PORTFOLIO

**CLIMATE  
CHANGE**



**28**

SUPPORTED TO REDUCE THE  
RISKS OF NATURAL DISASTERS,  
INDUSTRIAL ACCIDENTS

**COUNTRIES AND CONFLICTS**

OVER 10,000 PEOPLE



FROM 20 VILLAGES  
BENEFITED FROM  
THE FIRST HARVEST

IN THE AREA OF THE  
**SEIL GIDEIM**  
WATER-SPREADING  
DAM, NORTH DARFUR



**DISASTERS  
AND CONFLICTS**

UNEP RESPONDED TO CRISES AND  
SUPPORTED RECOVERY IN  
**22 COUNTRIES** –

10 OF WHICH WERE ACUTE  
ENVIRONMENTAL EMERGENCIES



**FIRST  
MASSIVE  
OPEN**



ONLINE COURSE ON  
ECOSYSTEM-BASED  
APPROACHES TO  
**DISASTER**  
RISK REDUCTION

REACHED 12,000 PEOPLE IN



**183**  
COUNTRIES

**17**  
COUNTRIES

COMPLETED A VALUATION  
OF THEIR ECOSYSTEMS



**58 COUNTRIES**  
SUPPORTED TO ENABLE  
DIFFERENT SECTORS TO USE AN  
ECOSYSTEM  
APPROACH



**ECOSYSTEM  
MANAGEMENT**

PROECOSERV PROJECT  
IDENTIFIED ALMOST  
**\$1 BILLION**  
OF ANNUAL

ECOSYSTEM BENEFITS IN  
COUNTRIES

**4**





**32 COUNTRIES  
PLEGGED  
TOUGHER ACTION  
ON ILLEGAL  
WILDLIFE  
TRADE**



**21 UN ORGANIZATIONS  
COMMITTED TO  
CLIMATE  
NEUTRALITY**



**ENVIRONMENTAL  
GOVERNANCE**

**15 COUNTRIES  
FINALIZED UN  
DEVELOPMENT ASSISTANCE  
FRAMEWORKS  
THAT INCORPORATED  
THE PRINCIPLES OF  
ENVIRONMENTAL  
SUSTAINABILITY**



**14 GOVERNMENTS,  
21 BUSINESSES  
AND INDUSTRIES,  
12 CIVIL SOCIETY ORGANIZATIONS  
ADDRESSED PRIORITY  
CHEMICAL ISSUES**



**STRATEGIC APPROACH  
TO INTERNATIONAL  
CHEMICALS MANAGEMENT:  
184 APPROVED IN 108  
PROJECTS COUNTRIES  
UNDER QUICK START PROGRAMME**



**17 COUNTRIES  
ADOPTED  
POLICIES  
PROMOTING**



**SOUND  
MANAGEMENT  
OF CHEMICALS  
AND WASTE**

**58 COUNTRIES  
HAVE LEGAL  
AND REGULATORY  
FRAMEWORKS  
ON LEAD  
IN PAINT**



**CHEMICALS  
AND WASTE**

**140 COUNTRIES, INSTITUTIONS  
AND BUSINESSES IMPROVED  
MANAGEMENT  
PRACTICES  
OR STRATEGIES  
IN GLOBAL  
SUPPLY CHAINS**



**RESOURCE  
EFFICIENCY  
AND SUSTAINABLE  
CONSUMPTION  
AND PRODUCTION**

**8 COUNTRIES  
9 CITIES  
ADVANCED  
SUSTAINABLE  
CONSUMPTION AND  
PRODUCTION AND GREEN  
ECONOMY POLICIES**



**AVAILABLE ON UNEP LIVE:  
NATIONAL DATA FLOWS FROM  
192 COUNTRIES  
9 COMMUNITIES  
OF PRACTICE WITH OVER  
1,500 MEMBERS  
AND SUSTAINABLE DEVELOPMENT  
GOALS TRACKING PORTAL**



**ENVIRONMENT  
UNDER REVIEW**

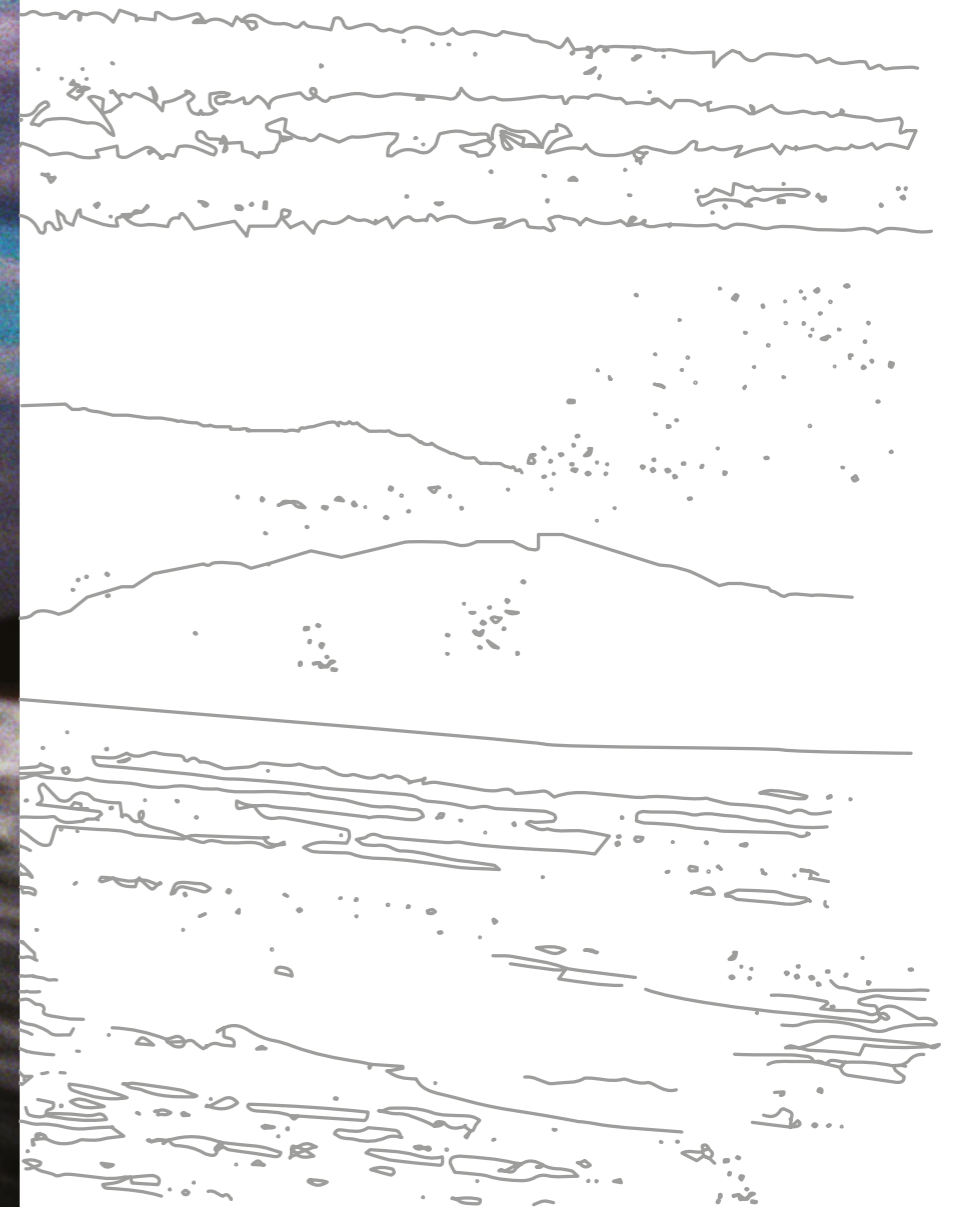
**UNEP LIVE  
NATIONAL REPORTING  
SYSTEM  
DEMONSTRATED IN  
20 COUNTRIES**





# CLIMATE CHANGE

**MINIMIZING THE SCALE AND IMPACT OF CLIMATE CHANGE**





UNEP Deputy Executive Director Ibrahim Thiaw speaks at an event held by the Global Alliance for Buildings and Construction during the Paris climate meeting. © AFP / Loic Venance

## In its work on combating climate change, UNEP focuses on three areas:

- **Climate resilience** – Supporting countries in using ecosystem-based approaches to adapt and build resilience to climate change.
- **Low-emission growth** – Supporting countries to reduce greenhouse gas emissions, adopt renewable energy, increase energy efficiency measures and reduce air pollution.
- **REDD+** – Enabling countries to seize investment opportunities that reduce greenhouse emissions from deforestation and forest degradation with adequate social and environmental safeguards.

UNEP exceeded its climate targets in the last reporting period due to additional income and effective global partnerships – highlighting the importance of the organization to the coming efforts to implement the Paris Agreement and the Sustainable Development Goal on Climate Change.

## Climate Resilience

Over the last two years, UNEP enabled 20 countries to implement ecosystem-based and other adaptation approaches. Of these countries, ten incorporated ecosystem-based (EbA) and other supporting adaptation approaches in key sectoral and development plans, bringing the total to 19 – including Afghanistan, Bangladesh and Tanzania.

However, the implementation of such plans requires financing, which is currently lagging behind needs. According to advance findings from UNEP's second Global Adaptation Gap Report, adaptation costs are likely to be up to three times higher than current estimates. UNEP encourages further sources of adaptation funding and helps countries access existing finance. UNEP supported 10 countries with their accreditation process to the Adaptation Fund, of which four (Costa Rica, Mexico, Namibia and Peru) became accredited and can access finance directly. In addition, UNEP helped countries increase the availability of microfinance for adaptation (see in-focus story on page 13).



A man stands near the Toau atoll in French Polynesia. Small Island Developing States are at the frontline of climate change. © AFP/Gregory Boissy

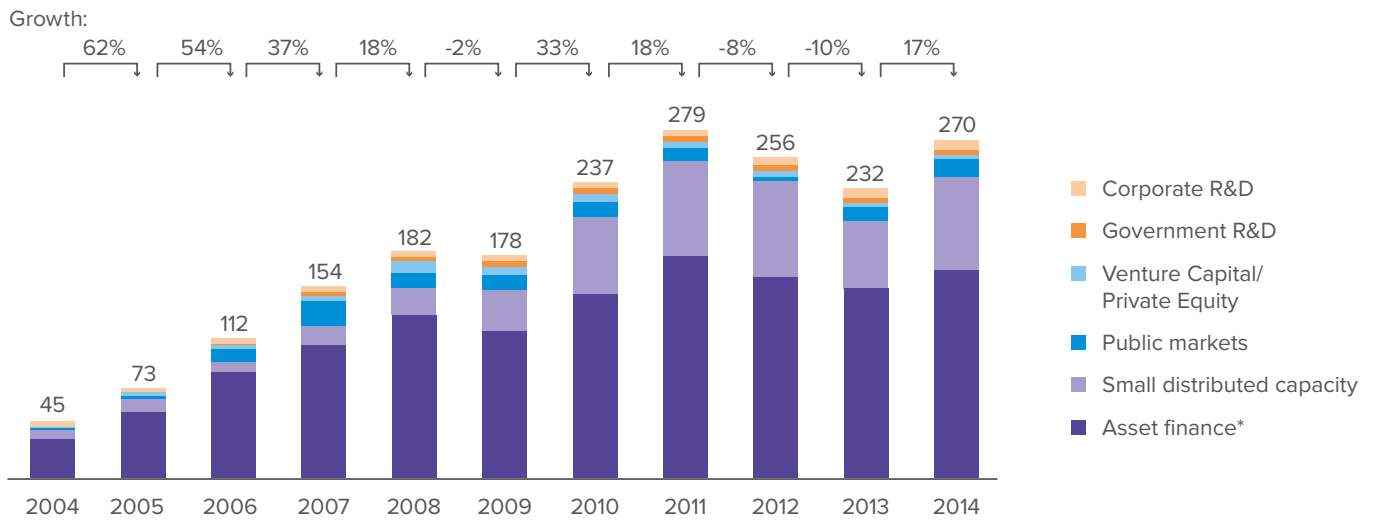
## The 2015 Global Adaptation Report

Total bilateral and multilateral financing targeting climate change adaptation in developing countries in 2014 was estimated at \$18.4 billion, representing an 8-9% increase over the past five years – but still far short of what will be needed by 2030.

# \$18.4 BILLION

**TOTAL BILATERAL AND MULTILATERAL FINANCING TARGETING CLIMATE CHANGE ADAPTATION IN DEVELOPING COUNTRIES**

## Global trends in renewable energy investment 2015 (billions of dollars)



\*Asset finance volume adjusts for re-invested equity. Total values include estimates for undisclosed deals.  
Source: UNEP, Bloomberg New Energy Finance

### Low-emission growth

UNEP's Emissions Gap Report 2015, a key document in negotiations at the Paris climate meeting, assessed 119 Intended Nationally Determined Contributions (INDCs) submitted to the UN Framework Convention on Climate Change. These pledges, combined with existing measures, could cut up to 10 gigatonnes of emissions (GtCO<sub>2</sub>e) per year by 2030. However, this is half what is needed to have a likely chance of limiting global warming to 2°C target this century, beyond which serious climate impacts can be expected.

The report notes that enhanced energy efficiency in buildings, industry and transport, and increased renewable energy, are critical to closing the gap. As these sectors account for around 40% of global energy use, UNEP works closely with its partners and governments to accelerate action in these areas. In the last two years, UNEP provided assistance to 31 countries to implement initiatives to improve energy efficiency or invest in renewables, far exceeding the target of 20 countries set for December 2015. UNEP complements these efforts with major partnerships to enable a broader reach than would be possible on its own.

### UNEP-supported achievements in energy efficiency

**24 countries** completed their national efficient lighting strategies, with the support of the en.lighten initiative, bringing the total to 38.

**24**   
COUNTRIES



**EFFICIENT LIGHTING STRATEGY**

**13 countries** are adopting efficient appliances strategies under the Efficient Appliances and Equipment Partnership, which targets a global shift that could cut 1.25 billion tonnes of emissions and save \$350 billion each year.

**13**   
COUNTRIES



**EFFICIENT APPLIANCE STRATEGY**

**Chile, Kenya, Mauritius and Viet Nam**, with the support of the Global Fuel Economy Initiative, adopted fuel efficiency policies, bringing the total number of countries with cleaner vehicle and fuel efficiency policies to 10.

**10**   
COUNTRIES



**CLEANER VEHICLE AND FUEL POLICIES**

# CLIMATE CHANGE

## Major partnership initiatives on climate change

### The 1 Gigaton Coalition

A coalition of 25 countries and 40 organizations that supports nations to report on savings from renewable energy and energy efficiency measures. The first report, released in Paris, found potential savings of 1.7 gigatonnes a year by 2020.

**25**   
COUNTRIES

**40**   
ORGANIZATIONS

### Portfolio Decarbonization Coalition (PDC)

25 institutional investors have joined the coalition of investors committed to fighting climate change through green investment, run by the UNEP Finance Initiative. Two of the world's biggest institutional investors – Allianz and ABP – joined in December 2015. Some \$600 billion of assets under management will be decarbonized.

**\$**  **25**  
INSTITUTIONAL INVESTORS

**\$600 BILLION**  
ASSETS UNDER MANAGEMENT WILL BE DECARBONIZED

### The Climate and Clean Air Coalition (CCAC)

The 110 partners of the CCAC are implementing high-impact measures to reduce black carbon, methane and hydrofluorocarbon in agriculture, brick production, cooking, heating, diesel vehicles, oil and gas production, and municipal solid waste. Members pledged tens of millions of dollars to a new five-year plan at the Paris climate meeting.

 **110**  
PARTNERS

  
**5 YEAR PLAN**

### The Climate Technology Centre and Network (CTCN)

The CTCN, which UNEP manages in partnership with the UN Industrial Development Organization, assists 10 countries on their climate technology challenges – including waste and energy efficiency in Colombia, refrigerant technologies in Namibia and Mauritius, and efficient lighting in the Dominican Republic.

**10**   
COUNTRIES ASSISTED



Including the 25 members of the Portfolio Decarbonization Coalition, a total of 67 finance institutions have committed to clean technology investments, exceeding UNEP's 2015 target of 55 such institutions. In addition, at the Paris climate meeting the international community pledged over \$10 billion to the UNEP-supported Africa Renewable Energy Initiative, an African-led plan to add 10,000 MW of additional renewable energy on the continent by 2020.

**For more information on UNEP's work on climate change, visit [unep.org](http://unep.org) or follow us on Facebook or Twitter.**

## REDD+

Global momentum on conserving forests increased with the adoption of the New York Declaration on Forests, which aims to halve the rate of loss of natural forests by 2020 and end it by 2030. The UN Collaborative Initiative on Reducing Emissions from Forest Degradation in Developing Countries (UN-REDD) – jointly implemented by UNEP, the Food and Agriculture Organization and the UN Development Programme – scaled up support to 64 countries to help them become ready for the expanded REDD+ approach, up from 48 in December 2013. Twenty-six of these countries had national programmes; half of those went on to develop or adopt national REDD+ strategies in 2014-2015. A total of 20 countries have begun the process of developing, adopting or implementing national REDD+ strategies, exceeding UNEP's target of 15 countries by December 2015.

A view under the Altesch Glacier in Fiesch, Switzerland, which coils 23 km through the Swiss Alps. The glacier has retreated about 3 km (1.9 miles) since 1870 and that pace is quickening.  
© Denis Balibouse / Reuters





Colombian farmer Carlos Lopez shows lettuce crops damaged by a lack of rain. Ecosystem-based adaptation can help farmers build resilience to erratic weather. © John Vizcaino / Reuters

## ADAPTATION IMPROVING LIVES OF COLOMBIAN FARMERS

**For years, Raul Sarmiento and Margot Quintero, farmers from Rionegro in Colombia, struggled to cope with the changing climate. Once, the rains were predictable. Now they are scarce. When they do come, it is often as storms. Both extremes damage their crops. However, as the result of a microcredit project that funds climate change adaptation measures, the husband and wife are among thousands of farmers in Colombia who can thrive despite such erratic weather.**

They are on their third loan of \$2,000 from Crezcamos, a partner of the Microfinance for Ecosystem-based Adaptation (MEbA) project, which is implemented in Colombia and Peru by UNEP and the Frankfurt School with German government funding. The drip irrigation system Raul installed with the money has strengthened his farm's resilience to drought – proving that such projects can help communities adapt to the coming climactic changes that even emissions cuts envisioned under the Paris Agreement cannot head off.

“We used to lose around 50% of our crops, now we only lose about 20%,” says Margot. “Last year, there was a drought, but since we had our irrigation system we were able to save our entire production. We harvested over 1,000 boxes of mandarins, which are sold in the market at between \$6 and \$12 each.”

The drip irrigation system and other EbA measures – such as organic fertilizer use, crop diversification and terracing – increase the resilience of small farmers through better use of ecosystem services. They also reduce production costs, increase productivity and diversify income streams.

Their credit is one of nearly 3,300 credits delivered under the project, resulting in roughly \$4.6 million of private investment towards sustainable adaptation alternatives. And the project is growing.

Partner institutions have committed to allocate \$20 million over the next five years, delivering 24,000 credits and training 14,000 clients on EbA. The challenge is to replicate the MEbA concept in vulnerable rural areas throughout the developing world, increasing climate resilience and improving livelihoods to achieve the 2030 Agenda for Sustainable Development. Public-private partnerships like MEbA could reduce the current global shortfall of \$2 billion in adaptation financing.

But EbA projects will only be meaningful if matched with policies to promote private sector participation and the implementation of sustainable and cost-effective adaptation options, on which UNEP is collecting more and more evidence. UNEP is working with governments in the Latin American region to promote such policies, and with national and regional development banks to make the case on EbA and create MEbA-specific credit lines.

For Raul, such wide-ranging support is essential to safeguard traditional rural lifestyles, which produce the food needed to support the planet's growing population.

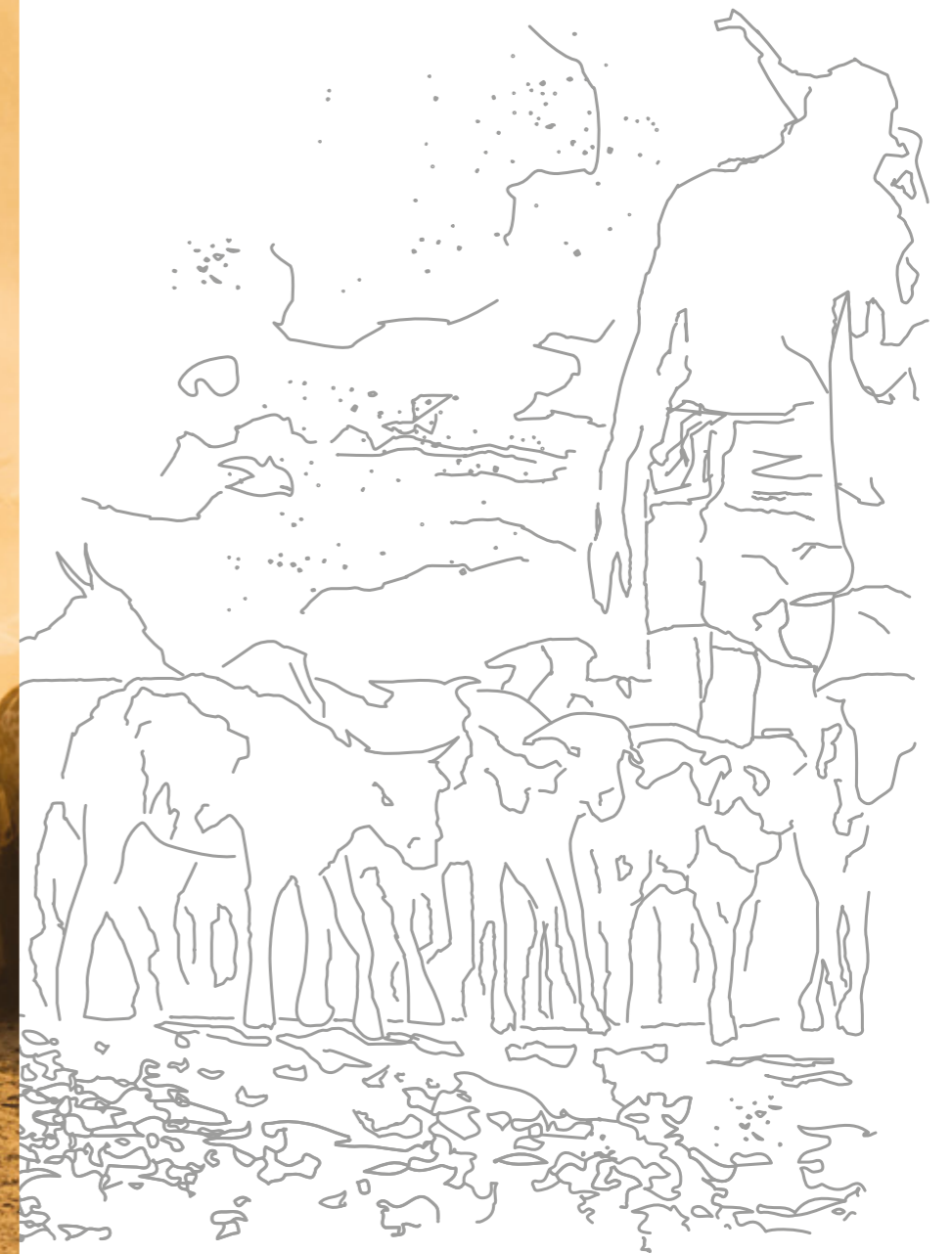
**“We say that it would be good for young people not to leave for the town or city. But how are they going to stay in the fields if they have no support?” he says. “If we don't look for systems to help us produce despite climate change, like these MEbA systems, harvests will be lost. After we all leave our farms, people will start biting their cell phones; that is how they will eat.”**

**\$20M COMMITTED TO OVER NEXT 5 YEARS IN FUNDING**



# DISASTERS AND CONFLICTS

**MINIMIZING  
ENVIRONMENTAL  
THREATS**



# DISASTERS AND CONFLICTS

**In its work on disasters and conflicts, which aims to minimize threats to human well-being from environmental degradation, UNEP focuses on achieving results in two areas:**

- **Risk reduction** – Improving countries' ability to use environmental management to prevent and reduce the risks of natural hazards, industrial disasters and conflict.
- **Response and recovery** – Supporting countries in the aftermath of a disaster or conflict to identify and address environmental risks that could have serious social and economic impacts.

## Risk reduction

Over the last two years, UNEP supported 28 countries to reduce the risks of natural disasters, industrial accidents and conflicts.

At the global level, a key measure of success is how well UNEP can integrate ecosystem-based solutions for disaster risk reduction (DRR) and peacebuilding into the wider UN's guidelines, policies and programmes. Ten significant UN policies, guidelines and programmes now reflect best practice in sustainable natural resource management, bringing the total number to 23. This exceeds the target of 20 for the end of 2015. UNEP is now also directly reaching the next generation of policymakers through online training on DRR (see In Focus feature on page 19).

# 28

## COUNTRIES

**SUPPORTED TO REDUCE THE RISKS OF NATURAL DISASTERS, INDUSTRIAL ACCIDENTS AND CONFLICTS.**



A grain miller at work in Les Anglais, Haiti, where a sustainable micro-grid is providing energy to households and small businesses – part of long-term support for recovery from the 2010 earthquake. © Marc Lee Steed

## Highlights of UNEP support on risk reduction

### Madagascar

UNEP conducted an assessment of major risks posed by hazardous ammonia storage in an industrial site. The containers were safely removed and neutralized.

### Peru, Thailand

Emergency preparedness was improved through regional (Asia-Pacific and Latin America) training of trainers in the Awareness and Preparedness for Emergencies at Local Level (APELL) methodology.

### Tajikistan

Environmental emergency preparedness training; support to dam safety; training and support in the safe management of debris and asbestos waste; training in ecosystem approaches to Disaster Risk Reduction (eco-DRR).



## UNEP policy influence on crisis reduction

Who we influenced	What we influenced	What we did	Why it's important
Member states, the humanitarian and development communities	The Sendai Framework on Disaster Risk Reduction (SFDRR)	UNEP worked to ensure the environment was included as a key factor in disaster risk and taken into account as a solution.	The Sendai Framework sets the goals for disaster risk reduction policies for the next 15 years.
The UN, World Bank and EU	Post Disaster Needs Assessments (PDNA)	UNEP led the environmental section of the development of the PDNA guidelines, including a guideline on environmental issues.	The PDNA is the principal framework used by the UN, the World Bank and the EU to gauge post-disaster needs. The inclusion of the environment should ensure more sustainable spending of billions of dollars of post-disaster assistance.
The High Level Independent Panel on UN Peace Operations	Uniting our Strengths for Peace report	UNEP provided input on the environmental impacts of peacekeeping operations and the potential of green technology.	This high-level review will shape the future of UN peace operations.

## Response and recovery

UNEP responds to acute environmental emergencies as part of humanitarian response teams. It also conducts post-crisis assessments of environmental damage and recovery needs, and provides guidance to those involved in recovery. UNEP responded to crises and supported recovery in 22 countries over the last two years – ten of which were acute environmental emergencies. UNEP has carried out post-crisis or rapid environmental assessments in 29 countries since 2010. Between 2010 and 2014, in 88% of the assessments where UNEP identified serious risks, national governments or the UN took action to reduce those risks.

**BETWEEN 2010-2014 IN**

**88%**

**OF THE ASSESSMENTS WHERE UNEP IDENTIFIED SERIOUS RISKS, ACTION WAS TAKEN\* TO REDUCE THOSE RISKS.**

\*BY NATIONAL GOVERNMENTS OR THE UN.



UNEP provided advice to the Government of Nepal, international agencies, and the UN system on dealing with environmental issues linked to the earthquake, which killed over 8,000 people in April 2015. UNEP also participated in a Post Disaster Needs Assessment (PDNA). UNEP is now developing a multi-year programme to support green recovery and environmental resilience in Nepal. © Adnan Abidi / Reuters

# DISASTERS AND CONFLICTS

## Highlights of UNEP emergency response to crisis situations

Country	UNEP support	Result
Serbia	Assessment of flood-related risks of chemical leaks and landslides	Follow-up activities have been conducted by the Serbian government to implement the recommendations from the assessment. Post-flood planning has been integrated into a regional climate change adaptation project for South East Europe.
Solomon Islands	Assessment of flood-weakened gold mining tailings dam	The government is using UNEP's assessment to pursue a claim against the previous mine owner. Plans and the equipment to lower the level of water are now in place.
Ukraine	Recovery and post-conflict needs assessment as part of the UN team with the EC and the World Bank	The assessment informed the development of the Donbas Recovery Programme, which was the basis for €1.4 billion in loans.

## Highlights of long-term support

**Haiti** 430 households and business have been provided with clean and reliable electricity as part of a project aiming to provide 1,600 households with electricity by 2016.

 **1600**  
HOUSEHOLDS

 **ELECTRICITY**  
**BY 2016**

**Afghanistan** Four major projects linked ecosystem-based disaster reduction with climate action to deliver capacity building to seven government departments, and support 35 local communities in projects for watershed management across four provinces.

**35 LOCAL**  
**COMMUNITIES**

 **WATERSHED**  
**MANAGEMENT**

**Sudan** More than 10,000 people from 20 villages benefited from the first successful harvest in the area of the Seil Gideim water-spreading dam, North Darfur.

 **10,000**  
**PEOPLE**

 **HARVEST**  
**CROPS**

While UNEP provides environmental assessments immediately after a crisis on request from the country or UN system, the organization also provides long-term support to countries that require more-sustained environmental assistance for recovery, which has meant longer-term support in Afghanistan, the Democratic Republic of Congo (DRC), Haiti, South Sudan and Sudan.

**For more information on UNEP's work on Disasters and Conflicts, visit [unep.org](http://unep.org) or follow us on Facebook or Twitter.**



The natural beauty of Bamyan, Afghanistan. The nation is working with UNEP on ecosystem-based disaster reduction and climate action. © AFP Photo / AFP



## NEW ONLINE APPROACH TO TRAINING BUILDS RESILIENCE TO DISASTERS

**Over the last ten years, UNEP and its partners have run in-person training courses on how to manage ecosystems to increase resilience to natural disasters. These courses have reached hundreds of people in over 40 countries. But this hasn't been enough to meet demand, or to tackle the scale of the problem.**

In 2015, UNEP launched the world's first Massive Open Online Course (MOOC) on Disasters and Ecosystems. Run in collaboration with the Cologne University of Applied Sciences, Global Universities Partnership on Environment for Sustainability and the Partnership for Environment and Disaster Risk Reduction, the course reached over 12,000 people in 183 countries. Focusing on ecosystem-based approaches to disaster risk reduction (Eco-DRR) and climate change adaptation, the course aims to reach one million people over the next five years and enable a new generation to promote more sustainable and resilient development. The community is growing; its MOOC Facebook group now has over 10,000 members, and students' experiences show change is already happening.

### Nkembeteck Henry Nkwa, Cameroon

A row of mature trees protected Nkembeteck Henry Nkwa's family home until road developers tore them down. Three days later, a storm damaged his house. The experience prompted him to learn more about how the natural world can buffer disaster impacts. He is working toward a master's at the Higher Institute of the Sahel in Cameroon,

majoring in desertification and natural resources. To complement his studies, he signed up for UNEP's course. The course inspired him to build a grassroots organization, The Rural Women Resilience Bedrock, which helps rural women become more financially resilient to the effects of climate change through cultivating fruit trees.

**"In the face of a changing climate, no development can be sustainable if disaster risk reduction and climate change adaptation are not integrated in development planning," he says.**

### Heba Anna Philip, India

In the summer of 2013, Heba Anna Philip's homeland in the Kuttanad region of Kerala, southern India, suffered devastating floods. Many people lost their property, others their livelihoods. As a result, she took the course, which taught her how to work with communities to reduce disaster risk. Ms. Philips, now a 9th-grade student, is helping farmers in her home region prepare for floods, encouraging them to invest in growbags – sacks of soil that can be used to grow vegetables even if fields have flooded. A minimum of 25 growbags would make households more food secure during three months of heavy rains and floods. For a place like Kuttanad, implementing green infrastructure, such as Eco-DRR and ecosystem-based adaptation measures, is an effective solution.

**"We hope to bring awareness to people at the grassroots level – the simple villagers whose voices are often not heard or ignored by the government," she says.**

Floods in India inspired Heba Anna Philip to join UNEP's course and learn more on how to prepare for natural disasters. © Reuters / Rupak De Chowdhuri

### Dr. Naeem Shahzad, Pakistan

Following the 2005 earthquake and 2010 flooding in Pakistan, which killed tens of thousands of people, the National University of Sciences and Technology (NUST) developed a graduate-level programme on disaster management, the first of its kind in the country. Dr. Naeem Shahzad, an Assistant Professor in the programme, signed up for UNEP's course to broaden his view of disaster management.

**"Interactions with international experts [in] this course helped me gain knowledge and experience," he says. "We learned how disaster risk reduction, climate change adaptation and ecosystem[s] are interrelated."**

The course is going to have "long-lasting effects", Dr. Shahzad says, because the measures it advocates are economical, effective, and easy to implement. He is working to have the course included as an elective in the curriculum of his university's master's programme.

THE COURSE REACHED OVER  
**12,000**  
 PEOPLE IN 183 COUNTRIES.



# ECOSYSTEM MANAGEMENT

**SUPPORTING HUMAN  
WELL-BEING THROUGH  
HEALTHY ECOSYSTEMS**



# ECOSYSTEM MANAGEMENT

In its work on ecosystem management, which is of particular significance to the Sustainable Development Goals on conserving and sustainably managing terrestrial and ocean ecosystems, UNEP focuses on the following areas:

- **The Enabling Environment** – Assisting countries in incorporating the value and the long-term function of ecosystems in planning and accounting frameworks.
- **The productivity of terrestrial and aquatic ecosystems** – Assisting countries to use an ecosystem approach to managing terrestrial and aquatic ecosystems.
- **The productivity of marine ecosystems** – Assisting countries to use an ecosystem approach in marine ecosystem management.



Kenya has valued its ecosystems, including the Mount Kenya water catchment area, pictured here during a forest fire in 2012. © Thomas Mukoya / Reuters

## Building knowledge and enabling conditions

Ecosystems – complex webs of living organisms and other natural resources – play a critical role in supporting human well-being and driving economic growth through the services they provide such as food, water, pollination and climate regulation. As such, their continued health will be vital to the world's sustainable development aspirations. To help create an enabling environment for countries to understand and conserve these services, UNEP assists governments to quantify and understand the value of ecosystems and how to best use that information in their national decision-making processes.

Over the last two years, 17 countries – from a total of 61 working on the subject with UNEP, including through the Economics of Ecosystems and Biodiversity (TEEB) – completed a valuation of their ecosystems. Seven countries – including Guatemala, Kenya and the United States – were able to use valuation data on priority ecosystem services in their national accounting and budgeting processes, meeting the target set for December 2015. For a good example of this work, see the In Focus feature on UNEP's flagship ProEcoServ project (page 25).

## Productivity of terrestrial and aquatic ecosystems

UNEP supported 58 countries to enable different sectors to use an ecosystem approach. The result of this support is that eight countries, over the last two years, have taken steps to integrate the ecosystem approach into sector-based natural resource management, bringing the total to 25 countries, in line with targeted results.



UNEP's Europe Director, Jan Dusik, speaks on mountain agriculture during Mountain Week in Milan. © UNEP

**17**  
**COUNTRIES**  
**COMPLETED A**  
**VALUATION**  
**OF THEIR**  
**ECOSYSTEMS**



## UNEP support to countries to use an ecosystem approach

Country	Result
Angola	In conjunction with the Mayombe Transboundary Conservation Agreement, Angola – which will host World Environment Day 2016 to draw attention to the fight against the illegal wildlife trade – gazetted a first protected area.
Benin, Burkina Faso, Ghana, Ivory Coast, Mali, Togo	Finance secured for the implementation of the Strategic Action Plan for Volta Basin.
Democratic Republic of Congo, Rwanda, Uganda	Signature of the Treaty of the Greater Virunga Transboundary Collaboration, which aims to protect mountain gorillas and their landscapes, as well as the communities that depend on them through tourism, in Rwanda, Uganda and the Democratic Republic of Congo.
Indonesia	The ecosystem approach was used in Sumatra to establish a spatial plan and a strategic landscapes document.
South Africa	Increased its investment by \$4 million to restore the water catchment area of the Ntabelanga Dam.

### Great apes survival partnership responds to Borneo fires

As fires ravaged Southeast Asia last year, the Great Apes Survival Partnership (GRASP) stepped up its support to affected great ape populations. Annual fires set to clear land for agricultural development on Borneo, where the majority of the remaining 70,000 orangutans in the wild live, were whipped beyond control by El Niño meteorological conditions, resulting in the loss of one-third of the orangutans' forests.

The fires left orangutan rehabilitation centers overwhelmed by rescued apes. The Roundtable on Sustainable Palm Oil donated \$100,000 to GRASP projects in Borneo, which were used to fund orangutan rescue and rehabilitation, fire-fighting, and habitat protection projects. Efforts in Borneo were further boosted when two new organizations joined GRASP in December: Orangutan Appeal UK, which provides direct support to the Sepilok Orangutan Rehabilitation Centre in Sabah, and the Gunung Palung Orangutan Conservation Program, which engages local

communities and governments in the conservation of wild populations in West Kalimantan. GRASP has added 21 partners since 2013, with 102 governments, research institutions, United Nations agencies, conservation organizations and private supporters committed to the protection of great apes and their habitats.

### Productivity of marine ecosystems

Country action towards addressing marine litter increased substantially over the last two years with the G7 and the Barcelona, Cartagena, Helsinki and OSPAR Conventions agreeing upon marine litter action plans. At national and sub-national levels, Brazil, Chile, Colombia, Ecuador, Nigeria, Panama and Samoa are working on action plans on marine litter.

UNEP's Regional Seas Programmes and the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities (GPA) are the main vehicles UNEP utilizes to support countries in integrating the ecosystem approach in their efforts to sustain coastal and marine ecosystems.

UNEP also enabled 14 countries to use an ecosystem approach to sustain ecosystem services from coastal and marine systems. Viet Nam launched its National Integrated Coastal Zone Management Strategy, while Palau in October created the Palau Marine Sanctuary – an area in which no fishing, or other uses such as drilling for oil, will be permitted. The Bahamas, which has been supported in its endeavours by UNEP and the Global Environment Facility since 2009, also announced the creation of 24 new marine protected areas and the expansion of 3 existing national parks, thus adding around 3 million hectares to its marine protected areas and reserves system. Caribbean states signed up to the Caribbean Challenge Initiative (CCI) have agreed to a goal of protecting 20% of their coastal and marine ecosystems by 2020.

## Biodegradable plastics not the answer

To mark the 20th anniversary of the GPA, a report was released in November to highlight concerns over the widespread adoption of products labelled 'biodegradable'. *Biodegradable Plastics and Marine Litter. Misconceptions, Concerns and Impacts on Marine Environments* found that complete biodegradation of plastics occurs in conditions that are rarely, if ever, met in marine environments. There is also evidence suggesting that labelling products as 'biodegradable' increases the public's inclination to litter.

Another highlight was the adoption of the Biodiversity Protocol by the parties to the Tehran Convention, which obliges the Parties to work together beyond national borders in the conservation and restoration of the Caspian Sea. Governments also agreed to establish a permanent Secretariat of the Convention, under the administration of UNEP.

**For more information on UNEP's work on ecosystems, visit [unep.org](http://unep.org) or follow us on Facebook or Twitter.**

**500,000  
SQ / KM  
SET ASIDE FOR  
PROTECTION  
IN PALAU**



Delicate marine ecosystems were increasingly protected in 2015. © David Gray / Reuters

**“ISLAND COMMUNITIES HAVE BEEN AMONG THE HARDEST HIT BY THE THREATS FACING THE OCEAN. CREATING THIS SANCTUARY IS A BOLD MOVE THAT THE PEOPLE OF PALAU RECOGNIZE AS ESSENTIAL TO OUR SURVIVAL. WE WANT TO LEAD THE WAY IN RESTORING THE HEALTH OF THE OCEAN FOR FUTURE GENERATIONS.”**

**PALAU PRESIDENT TOMMY E. REMENGESAU JR.  
(A 2014 UNEP CHAMPION OF THE EARTH)**



## PROECOSERV PROJECT HELPING TO CONSERVE ECOSYSTEMS

**Much of Viet Nam’s mangrove forests are located in the southern Ca Mau Province, where they play a vital role in maintaining the health of ecosystems and provide services to 1.53 million people.**

Yet, over the last 30 years, large areas of mangroves – around half in the wider Mekong Delta, by some estimates – have made way for shrimp farms and other development. A continuation of this trend would lead to the decimation of the remaining mangroves, with huge implications for both ecosystems and livelihoods.

However, with the assistance of UNEP’s ProEcoServ project, which aims to integrate the economic value of ecosystems into government policies, attitudes are changing. The four-year project identified almost one billion dollars of annual benefits in four countries – including soil retention services worth \$622 million in Trinidad and Tobago and \$166 million in savings through ecosystem-based disaster risk reduction in South Africa. In Ca Mau, the Global Environment Facility-funded project showed that the economic benefits of the 45,523 hectares of mangrove forest reach up to \$2,985 per hectare per year. This value extends far beyond resource exploitation such as shrimp farming.

### Ecosystem benefits in Ca Mau province

Inshore fishing and traditional aquaculture play an important role for livelihoods in the Ngoc Hien District in Ca Mau – \$87.5 million from aquaculture in 2012. But farmers are now realizing that production will fall without the mangroves, which also provide protection from natural disasters and extreme weather events. During the period of ProEcoServ project, mangrove coverage in the area increased by 5.67%, resulting in increased aquaculture production valued at more than \$4 million.

**“Forest area in my land is less than the required 50%. Many of my shrimp died from disease, especially on the land not protected by mangrove forest. I could see then that the forest is useful for raising shrimp,” says Shrimp Farmer Van Cong To.**

ProEcoServ supported land-use planning at the Ca Mau level, helping to consolidate and protect land devoted to mangroves. Furthermore, ProEcoServ work, carried out by the Institute of Strategy and Policy on Natural Resources (ISPONRE), and the Ministry of Natural Resources and Environment in Viet Nam, provided input to the National Green Growth Strategy to 2020, and the National Strategy for Environmental Protection to 2020.

Surakit Laeadee stands outside his sustainable shrimp farm in Thailand. Shrimp farms have eroded mangrove forests, but many across the region are now recognizing the benefits of better practices. © Athit Perawongmetha / Reuters

The concepts are also gaining traction across the Greater Mekong Subregion, an economic area bound together by the Mekong River – encompassing a population of 326 million across Cambodia, the People’s Republic of China, Lao People’s Democratic Republic, Myanmar, Thailand, and Viet Nam.

**“We recognize that natural capital lies at the heart of economic development, underpins inclusive and sustainable development and sustains the livelihoods and wellbeing of all people in the Greater Mekong Subregion, especially the rural poor,” environment ministers from the six countries said in a joint statement.**

The ProEcoServ work adds further weight to the body of evidence proving ecosystems are crucial to sustainable development, and is also changing policy in other countries. In South Africa, the role of ecosystem services is now recognized as a part of an ecological infrastructure, with an active contribution to the \$93 billion National Infrastructure Development Plan. In Chile, meanwhile, the first tourism development plan for the Municipality of San Pedro de Atacama recognizes the role of ecosystem services in sustainable and tourism management.





# ENVIRONMENTAL GOVERNANCE

**STRENGTHENING GLOBAL  
GOVERNANCE IN AN  
INTERCONNECTED WORLD**



# ENVIRONMENTAL GOVERNANCE

**In its work on environmental governance, the overarching element that needs to be strengthened to implement the 2030 Agenda for Sustainable Development and other international frameworks, including the recently adopted Paris Agreement, UNEP focuses on three areas:**

- **Coherence and synergy** – Improving the manner in which the UN system and multilateral environmental agreements achieve policy coherence.
- **Law and institutions** – Enhancing the capacities of countries to establish and enforce legal and institutional frameworks to address environmental priorities.
- **Mainstreaming the environment into development processes** – Assisting countries to integrate environment into sectoral and development processes and plans, including those on poverty reduction.

## Coherence and synergy

In a complex world, in which many bodies and personalities work and interact on issues that affect the environment, UNEP promotes coherence and synergy in the multilateral system to ensure the international community embraces a sustainable future in a united and streamlined way. Coherence increased in the way the UN system and multilateral environmental agreements (MEAs) handled environmental issues over the last two years, resulting in several initiatives, some of which are highlighted below.

### **The 2030 Agenda for Sustainable Development (see page 50 for more on UNEP's role)**

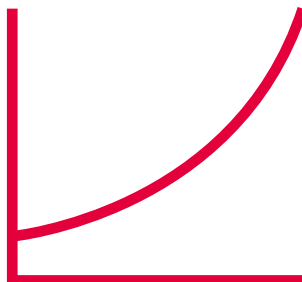
The environment is a key component of the Agenda and in specific Sustainable Development Goals, targets and indicators. Governments agreed to an integrated approach, which will require environmental issues to be addressed as part of a wider agenda for change that includes social and economic aspects.

## Environmental sustainability and climate neutrality in the UN system

Heads of UN agencies adopted a common approach on environmental management systems to reduce emissions and environmental impacts. Twenty-one UN organizations are pursuing climate neutrality, up from six in 2013, of which 18 organizations have emission reduction strategies and five Environmental Management Systems. Furthermore, the UN system, through the Environment Management Group (EMG), is developing system-wide strategies on the environment to enhance coherence. The aim is to have a framework for aligning agencies' respective strategies on the environmental dimension of the 2030 Agenda for Sustainable Development.



Residents of Mazatlan, Mexico release Olive Ridley turtle hatchlings as part of a programme to recover the endangered species, highlighting the harmony between people and planet that sustainable development strives for. © Stringer Mexico / Reuters

**21**  
**UN**  
**ORGANIZATIONS**  
**ARE PURSUING**  
**CLIMATE**  
**NEUTRALITY**  
  
**UP FROM 6**  
**IN 2013**

## Human rights and the environment

A resolution was adopted at the 28th session of the Human Rights Council, strengthening the mandate of the Special Rapporteur on human rights and the environment and encouraging further coordination with UNEP. The UNDG Working Group on Human Rights issued a guide on supporting human rights at the country level, which includes links between human rights and the environment. At the Paris Climate Meeting, UNEP released a report detailing the many negative effects of climate change on human rights, and calling on nations to recognize this in their climate responses.

Additionally, collaborative arrangements with the secretariats of MEAs resulted in advances in terms of joining forces on common issues, including:

- The consideration of a set of options to enhance synergies on programmatic, institutional and administrative areas of work across six biodiversity-related MEAs.
- The agreement between MEA secretariats and UNEP partner organizations of a common multi-stakeholder thesaurus for the field of environmental law and conventions. This resulted in enhanced integration of knowledge available to users through INFORMEA, an information portal for MEAs, across over 50 global and regional multilateral environmental agreements.
- A Regional Seas Strategic Directions 2017-2020 plan adopted at the 17th regional seas conventions and action plans meeting.

For more information on the work of UNEP-hosted global MEAs, see page 52.

**“CLIMATE CHANGE IS THE RESULT OF CHOICES MADE BY HUMAN BEINGS AND HAS DEVASTATING IMPACTS ON A WIDE RANGE OF INTERNATIONALLY GUARANTEED HUMAN RIGHTS – THE RIGHTS TO FOOD, WATER, SANITATION, ADEQUATE HOUSING, AND HEALTH – FOR MILLIONS OF PEOPLE.”**

**ZEID RA'AD AL HUSSEIN, UNITED NATIONS HIGH COMMISSIONER FOR HUMAN RIGHTS**



# ENVIRONMENTAL GOVERNANCE

## Law and institutions

Through UNEP's support, 11 countries undertook new legal and institutional measures to improve implementation of internationally agreed environmental goals over the last two years. Two countries also undertook initiatives to monitor and achieve compliance and enforcement of international environmental obligations.

Partnerships with regional and global organizations, such as the Organization of American States (OAS) and Globe International (a global legislators' organization), have helped to scale up UNEP's work on law, leading to the uptake of the concept of environmental rule of law in regional contexts and to more systemic approaches to the engagement of parliamentarians.

UNEP also aims to increase the number of initiatives and partnerships of major groups and stakeholders in support of the development and implementation of national and international environmental law. UNEP's target was achieved with the conclusion of partnership agreements with the Stakeholder Forum and the Konrad Adenauer Foundation. UNEP's partnership with the Stakeholder Forum aims to embed the perspectives of major groups and stakeholders in the work of UNEP, including access to information, justice and public participation in environmental matters. UNEP's partnership with the Konrad Adenauer Foundation aims to enhance the capacities of judges and legal stakeholders in the field of environmental rule of law, particularly in Africa.

# 15

## COUNTRIES

**FINALIZED, IN THE PAST YEAR, UN DEVELOPMENT ASSISTANCE FRAMEWORKS (UNDAFs) THAT INCORPORATED THE PRINCIPLES OF ENVIRONMENTAL SUSTAINABILITY.**

At the international level, UNEP convened processes to promote effective transboundary freshwater governance, the concept of environmental rule of law and Access to Information, Public Participation and Access to Justice in Environmental Matters (Principle 10) to enhance capacities of government stakeholders. A regional forum was held in Panama for Latin America and the Caribbean to share practices. Noteworthy is progress in the negotiation of a regional agreement on Principle 10, which benefited from UNEP's support. On environmental rule of law, partnerships were developed, regional colloquia held and a global report initiated.

## Mainstreaming environmental sustainability

Fifteen countries finalized, in the past year, UN Development Assistance Frameworks (UNDAFs) that incorporated the principles of environmental sustainability. Furthermore, the Poverty-Environment Initiative, which UNEP runs in collaboration with the UN Development Programme, resulted in the integration of environment objectives into a total of 21 policies, plans and processes focusing on poverty reduction over the past two years.

Eight sub-regional and regional fora incorporated the principles of environmental sustainability in 2014-2015. These intergovernmental sessions, which covered several regions and sub-regions (Africa, Arab States, Asia and the Pacific, Central Asia, Europe, Latin America and the Caribbean and Small Island Developing States), provided a strategic link between global and regional priorities. The fora promoted the uptake of global environmental priorities at the regional and national levels. They also came up with messages that feed into global processes, such as the upcoming second United Nations Environment Assembly (UNEA-2).



Oyun Sanjaasuren, who presided over the first UNEA and will stand down in 2016.  
© Francis Dejon

## Implementing United Nations Environment Assembly (UNEA) resolutions

### Air Quality (UN Environment Assembly resolution 1/7)

The World Health Assembly adopted a resolution on Health and the Environment: Addressing the health impact of air pollution. Air quality data was made accessible via UNEP Live, and regional plans were adopted. An air policy quality catalogue was made available as a step toward a global air quality report for UNEA 2. See In Focus feature in the Environment Under Review chapter (page 49) for more information on air quality.

### Illegal Trade in Wildlife (UN Environment Assembly resolution 1/3)

30 projects totaling \$2 million were funded from African Elephant Fund. Analyses of environmental impacts of the illegal trade in wildlife and wildlife products were initiated. See In Focus feature on page 31 for more on UNEP's work on the illegal wildlife trade.

**For more information on UNEP's work on environmental governance, visit [unep.org](http://unep.org) or follow us on Facebook or Twitter.**



## **SOUTH AFRICAN ANTI-POACHING UNIT INSPIRES GLOBAL ACTION**

Members of the Black Mamba Anti-Poaching Unit, who won UNEP's 2015 Champions of the Earth Award. © UNEP

**Collet Ngobeni and Felicia Mogakane are most at home in the wide open spaces of Balule Private Game Reserve in South Africa. There, they form part of the Black Mamba Anti-Poaching Unit, a majority-women ranger group facing up to criminal gangs poaching rhinos for profit.**

But last September the two women found themselves in New York City to receive the UNEP Champions of the Earth award on behalf of the Black Mambas – providing inspiration and action in the fight against the illegal trade in wildlife.

**“Aims like the Sustainable Development Goals may seem beyond the scope of an ordinary person,” said NoCry Mzimba, another member of the Black Mambas. “But we are all ordinary people. UNEP gave us the Champions of the Earth award for what we’ve accomplished as ordinary people.”**

The Black Mambas walk up to 20km a day, seeking out poachers, their camps and snares. When not on patrol, they discourage community members from joining the poachers’ ranks. Such work is vital in South Africa, where 1,215 rhinos were killed in 2014. The rapid rise in rhino poaching, from under 20 in 2007, has been driven by organized syndicates capitalizing on demand. This is representative of the situation facing many species across the continent,

where more than 100,000 elephants were killed in a three-year period alone. More Black Mambas are clearly needed.

**“Community-led initiatives are crucial to combating the illegal wildlife trade,” said UNEP Executive Director Achim Steiner. “The Black Mambas are an inspiration not only locally, but across the world to all those working to eliminate the scourge of the illegal wildlife trade.”**

The Black Mambas are part of a growing global movement. Last year, 32 countries pledged tougher action during the Conference on Illegal Wildlife Trade in Kasane, Botswana. This followed a resolution adopted by 157 countries gathered for the first-ever UN Environment Assembly (UNEA) in 2014. Then, in July 2015, the UN General Assembly adopted a resolution calling for wildlife crime to be treated as a serious crime, both nationally and across borders. The international community has undertaken other steps to address the crisis on the demand side. For example, nine internet enterprises in China have committed to not offering publicity or trading services for illegal wildlife products on their networks.

UNEP is now concentrating on the implementation of the UNEA-1 Resolution on Illegal Trade in Wildlife through coordinating a One UN and Partners Global Campaign to raise awareness on the social, security, economic and environmental

implications of the illegal trade, helping countries to strengthen legal frameworks and by increasing the evidence-base to enable countries to hone their policies.

UNEP has also been asked by the Secretary-General’s Policy Committee to facilitate the coordinated UN response to the illegal trade. It also facilitates access to the Global Environment Facility and other resources, including the African Elephant Fund.

Further momentum will be generated this year as the UN’s flagship day for public environmental outreach, World Environment Day, hosted by Angola, will focus on the ITW theme and support for Sustainable Development Goal 15.

NoCry knows that everybody must play their part to put an end to the slaughter.

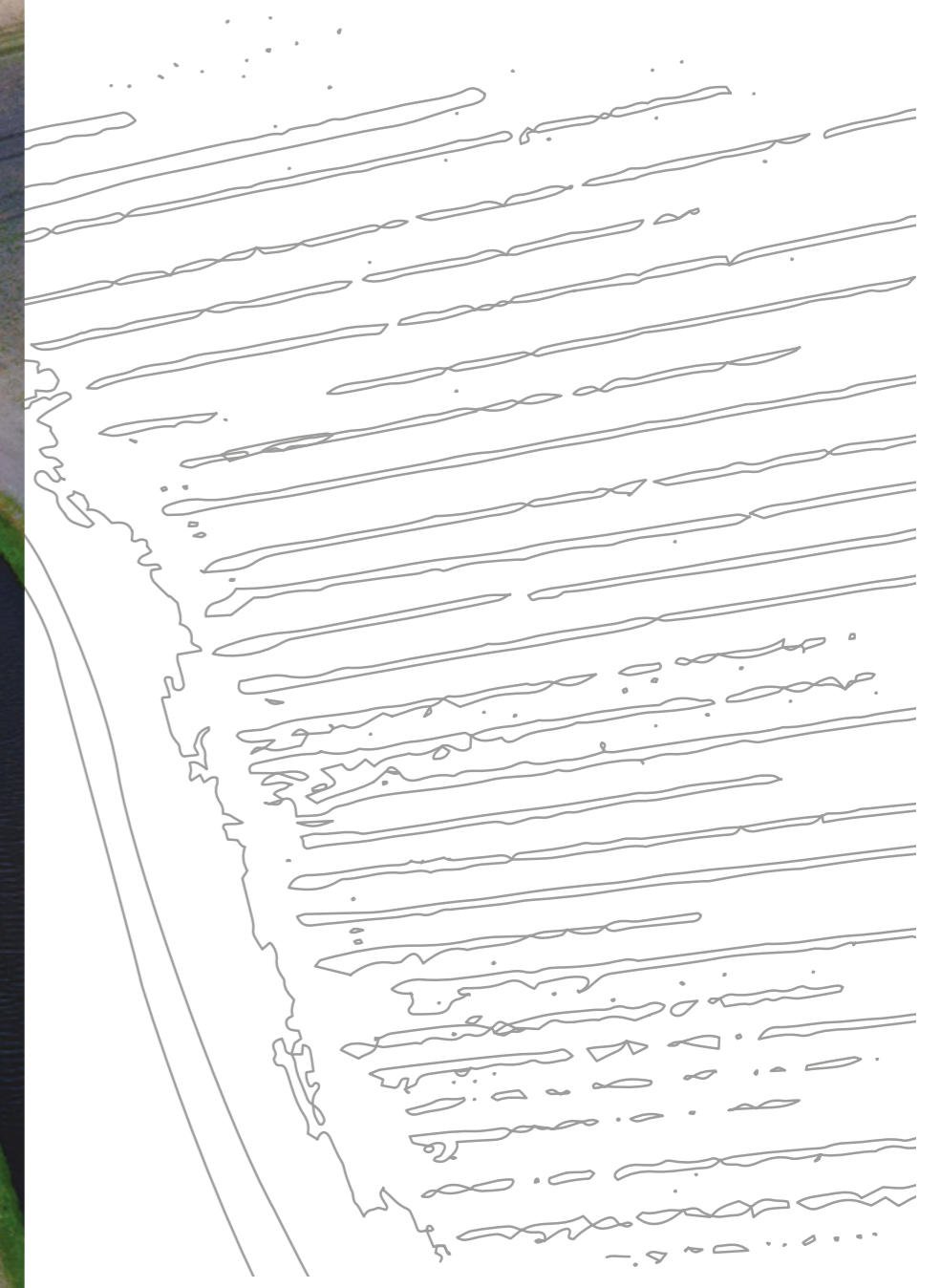
**“I do not know who you are, but I am sure that you can help,” she said. “We all have the power to get informed, make smart choices and influence others.”**

**For more information on the Champions of the Earth award, including the other 2015 laureates, see page 56 or visit [web.unep.org/champions](http://web.unep.org/champions)**



# CHEMICALS AND WASTE

**ENSURING SOUND  
MANAGEMENT OF  
CHEMICALS AND WASTE**



# CHEMICALS AND WASTE

**To achieve sound management of chemicals and waste, essential to the attainment of Sustainable Development Goal 3 on healthy people, UNEP focuses on three areas:**

- **The enabling environment** – Supporting countries to build the institutional capacity and policies to manage chemicals and waste soundly.
- **Chemicals** – Assisting countries, including major groups and stakeholders, to implement sound chemicals management and the related Multilateral Environmental Agreements (MEAs).
- **Waste** – Assisting countries, including major groups and stakeholders, to implement sound waste management and the related MEAs.

## The enabling environment

Over the last two years, 17 countries adopted policies promoting sound management of chemicals and waste, exceeding UNEP's target for December 2015. This increase stemmed from countries that ratified the Minamata Convention on Mercury. This convention, which governments adopted to tackle global emissions of the toxic element in 2013,

with assistance from UNEP, now has 128 signatories and 20 Parties, up from 94 signatory countries and only one Party in 2013.

## The Global Mercury Partnership – Supporting implementation of the Minamata Convention

Ratification and early implementation of the Minamata Convention on Mercury is facilitated by UNEP's Global Mercury Partnership – an alliance that enables countries to address the adverse effects of mercury. By December 2015, 50 countries were carrying out initial assessments for the convention.

The Global Mercury Partnership and the Strategic Approach to International Chemicals Management (SAICM) are important vehicles to support countries to create the appropriate enabling environment for action. They facilitate wide-ranging action to achieve results with direct benefits to human health and the environment. A voluntary trust fund, known as the Special Programme on institutional capacity strengthening – designed to support nations on SAICM and the Basel, Rotterdam, Stockholm (BRS) and Minamata conventions – was adopted at the first United Nations Environment Assembly in June 2014.

The Secretariat of the Special Programme is now fully operational with €11 million from the European Union, \$180,000 from Sweden, €200,000 from Finland and \$750,000 from the United States of America.

In addition, 2015 was a key year for the UNEP-hosted Montreal Protocol on Substances that Deplete the Ozone Layer, under which nations have prompted the healing of the ozone layer by almost completely phasing out Ozone-Depleting Substances. The 197 parties agreed to work on an amendment to the Protocol to control hydrofluorocarbons (HFCs), a replacement in cooling systems that does not damage the ozone layer but may eventually act as a climate warming gas (see page 52 on MEAs for more details).

## The Strategic Approach to International Chemicals Management (SAICM)

SAICM, for which UNEP provides the Secretariat, promotes chemical safety around the world. All projects funded by SAICM's Quick Start Programme (QSP) Trust Fund contribute to the achievement of the 2020 goal of sound chemicals management. A recent evaluation found the programme had met, and in many cases exceeded, its objective of establishing enabling environments for sound management of chemicals at the national level.



A girl suffering from hearing and speech disorders waits at a rehabilitation centre in Bhopal, India. The centre only treats families they believe were affected by the 1984 leak from a pesticide factory. © Danish Siddiqui / Reuters

STRATEGIC APPROACH TO INTERNATIONAL CHEMICALS MANAGEMENT  
QUICK START PROGRAMME SINCE 2006

**US \$49.1 MILLION**

**MOBILIZED BY THE TRUST FUND**

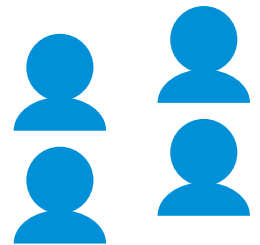
COMPRISING  
**\$39.4**  
MILLION



FROM

**24**

**DONORS**



IN CASH CONTRIBUTIONS

**AND \$9.7 MILLION** ADDITIONAL CONTRIBUTIONS  
LEVERAGED BY PROJECT IMPLEMENTERS

IN ADDITION



**\$74.1 MILLION**

IN NON-TRUST FUND  
CONTRIBUTION FROM

**19**

CONTRIBUTORS

**108**

DIFFERENT  
COUNTRIES

**54**

LEAST DEVELOPED COUNTRIES  
AND/OR SMALL ISLAND  
DEVELOPING STATES (SIDS)

**21**

PROJECTS WITH CIVIL  
SOCIETY PARTNERS

**163**

PROJECTS WITH  
GOVERNMENT PARTNERS

**14**

APPLICATION  
ROUNDS

**184**

APPROVED  
PROJECTS



# CHEMICALS AND WASTE

## Chemicals

UNEP aims to increase the number of governments, businesses and industries, and civil society organizations addressing priority chemical issues using its risk assessment and management tools. Over the last two years, 14 governments, 21 businesses and industries and 12 civil society organizations addressed priority chemical issues with UNEP's support. Lesotho, Swaziland and Viet Nam conducted national mercury inventories, while Madagascar identified alternatives for mercury-free products. Several mining companies in Chile and Peru implemented best practices, and dental associations in Tanzania and Uganda promoted the phasing out of dental mercury amalgam. Furthermore, several non-governmental organizations advocated for the UNEP-supported DDT Road Map, which focuses on phasing out this harmful persistent organic pollutant (POP). Another key highlight of UNEP's work on chemicals has been progress on lead (see In Focus feature on page 37).

## Waste

UNEP works with governments, businesses and industries, and civil society organizations to help them address priority waste issues. Over the last two years, seven national and local governments, nine businesses and industries, and seven civil society organizations addressed priority waste issues, bringing the total number of countries doing so to 22.

A key component of UNEP's approach is the promotion of the use of waste agricultural biomass as a source of energy. Agricultural biomass waste can replace fossil fuels, reduce greenhouse gas emissions and provide energy to 1.6 billion people in developing countries. Working with UNEP, Cambodia, Costa Rica and India have developed strategies to enhance the conversion of agricultural biomass waste into energy, with businesses putting in place appropriate technologies to scale-up results.

UNEP has also placed a sharper focus on 'waste as a resource' and the 'circular economy'. A good foundation for these approaches was laid by the Global Waste Management Outlook, which found that up to 10 billion tonnes of urban waste is generated each year. The report pointed to ways to eradicate this waste, such as the inclusion of informal recyclers in municipal waste management systems – which, for example, diverts 1,200 tonnes of waste daily from landfills and employs 8,250 people in Bogotá, Colombia. Together with other key elements, such as the development of an academic consortium to create a waste management curriculum and the preparation of guidelines for a legislative framework on waste management, this strengthens the basis for UNEP's future work on waste management and prevention issues.

**For more information on UNEP's work on chemicals and waste, visit [unep.org](http://unep.org) or follow us on Facebook or Twitter.**

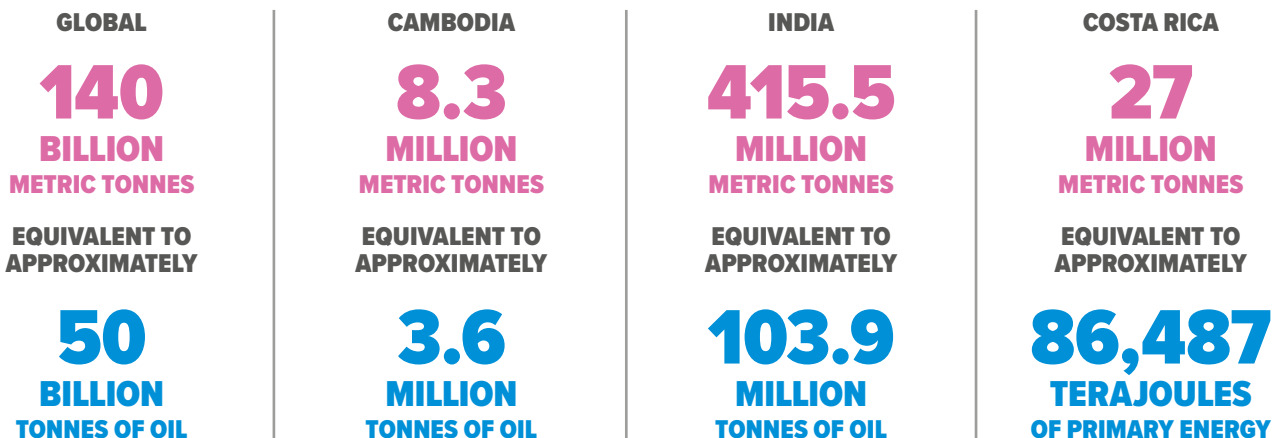
## The PCB Elimination Network (PEN)

Polychlorinated biphenyls (PCBs) are carbon-based chemical substances that persist in the environment, accumulate through the food web in the fatty tissue of living organisms, including humans, and cause adverse effects to human health and the environment. In the past PCBs were used as coolants and insulating fluids for transformers and capacitors, such as those used in old fluorescent light ballasts. Today, up to 9.3 million tonnes still need to be eliminated, with the largest amounts found in Africa and the Asia-Pacific region. To address this challenge, UNEP helped to establish the PCB Elimination Network (PEN), for which it serves as the secretariat.



UNEP's North America Director Patricia Beneke (far right), Goodwill Ambassador Don Cheadle (far left) and members of the Global Alliance to Eliminate Lead Paint announce the goal of eliminating lead paint by 2020 at Earth Day celebrations in Washington, D.C.  
© Alexander Jones

## Agricultural biomass generated per year





## AFTER LEAD FUEL PHASE OUT, UNEP TARGETING LEAD PAINT

**Abraham Berhane, who runs a paint company of 40 employees in Addis Ababa, Ethiopia, had no idea that his products held the potential to harm Ethiopia's future generations. In 2015, however, he and participants from government ministries and companies from across Africa attended a workshop organized by UNEP and the International POPs Elimination Network (IPEN) – part of a series of events held across the continent. Abraham was shocked to discover the potential health effects of his colourful paints, which used pigments containing lead.**

Childhood lead poisoning can have lifelong health impacts, including learning disabilities, anaemia, and disorders in coordination, visual, spatial and language skills. According to the World Health Organization (WHO), childhood lead exposure contributes to about 600,000 new cases of children with intellectual disabilities every year. The economic cost, due to lower IQ points, translates to over \$900 billion around the globe (\$137 billion in Africa, \$142 billion in Latin America, and \$700 billion in Asia).

In 2002, lead was used in fuels in 82 countries. Today, with UNEP and its partners' support, only three countries still have lead in fuels. This means that most of the damage comes from paint – which is why UNEP and WHO, leading the Global Alliance to Eliminate Lead Paint, are working across the globe to replicate the success with fuel. UNEP, WHO and partners such as IPEN are supporting nations to put in place the legal and regulatory frameworks to control lead paints and products coated with lead paints. Over the last two years, 23 countries took action, bringing the total number of countries with legal and regulatory frameworks on lead in paints to 58.

In the Philippines, for example, legislation now prohibits the use, manufacture, import, export and sale of paints with total lead content above 90 ppm, with demonstrable results. The testing of five paint brands revealed that the lead content has dropped from 2,330-126,000 ppm to 15-1,280 ppm. Sri Lanka and Nepal recently introduced similar legal limits to lead in paint.

Children can ingest lead from old paint flakes.  
© Shutterstock / Mike Red

While paints with very high lead content are still on the market in other countries, the situation is changing. At the sessions in Ethiopia, Mehari Wondimagegn, a senior official in Ethiopia's Ministry of Environment, Forest, and Climate Change, announced that his department is developing regulations to establish a 90 ppm standard for decorative paints. Representatives of other African governments also agreed to work towards introducing legislation that would limit the total lead content in all paints to 90 ppm by 2020. Movement is also taking place at a regional level, including the East African Community and the Economic Community of West African States.

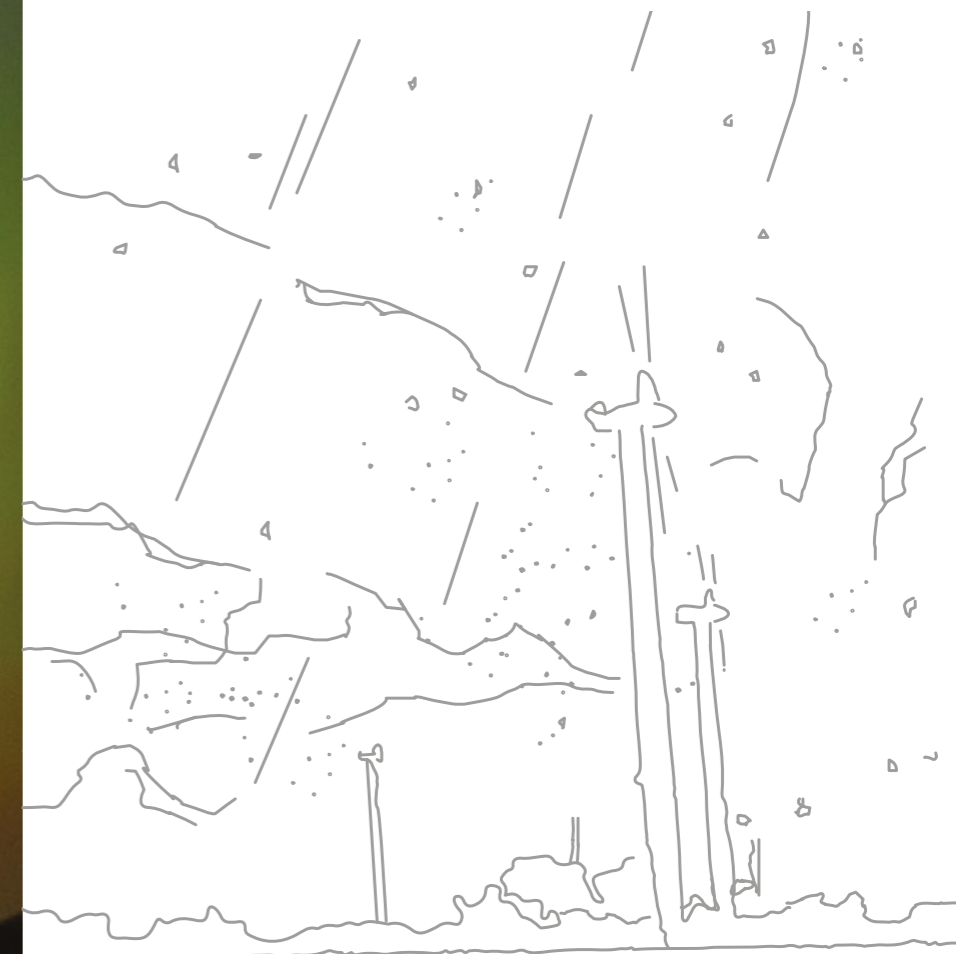
Abraham, however, knows that business has a responsibility to act, and is not waiting for legislation to change his business practices.

**“Lead in paint is a silent gun,” he says. “You cannot hear it harming your children's bodies. My company will stop selling paint containing lead. I will also talk to other companies in Ethiopia. Business should be like this.”**



# RESOURCE EFFICIENCY AND SUSTAINABLE CONSUMPTION AND PRODUCTION

**ACCELERATING THE  
TRANSITION TO  
SUSTAINABLE SOCIETIES**



# RESOURCE EFFICIENCY AND SUSTAINABLE CONSUMPTION AND PRODUCTION

**On resource efficiency and sustainable consumption and production – which is a standalone goal in the 2030 Agenda for Sustainable Development, but also impacts on other goals such as climate change, poverty, zero hunger, and sustained, inclusive and sustainable economic growth – UNEP focuses on three areas:**

- **Enabling environment** – Supporting countries in creating an enabling policy environment that promotes resource efficiency, sustainable consumption and production and the transition to green economy pathways.
- **Sectors and supply** – Enhancing the ability of governments, businesses and other parties to adopt sustainable consumption and production practices in key sectors across global supply chains.
- **Lifestyles and consumption** – Enhancing the ability of countries, businesses, civil society and individual consumers to make informed choices for sustainable consumption and lifestyles.

## Enabling environment

UNEP supports countries and regions to integrate green economy and sustainable consumption and production approaches into policies. Green economies are low carbon, resource efficient and inclusive, and create employment and enhance human well-being – all essential to the implementation of the 2030 Agenda for Sustainable Development and the Paris Agreement.

Over the last two years, with UNEP's support, eight countries and nine cities developed and/or started implementing sustainable consumption and production and green economy policies, meeting UNEP's target for the end of 2015. This brings the total to 29 countries and nine cities that have adopted or started the implementation of sustainable consumption and production and green economy pathways since 2011 – including those engaged through the Partnership for Action on Green Economy (PAGE).

The International Resource Panel, which provides policymakers with scientific assessments and reports on how to decouple economic growth from environmental impact, is another important way to improve the enabling policy environment. Over the last two years the UNEP-hosted body has released influential reports on metal recycling, climate change and city-level resource decoupling approaches.

## Green Economy in Europe

UNEP supported six Eastern European countries through the EU-financed Greening Economies in the Eastern Neighbourhood (EaP-GREEN) programme. Using scoping studies and training, this programme shows how economic growth can be decoupled from environmental degradation and resource depletion in Armenia, Georgia, Azerbaijan, the Republic of Moldova, Belarus and Ukraine.

Moldova can expect to earn back investments in renewable energy within ten years, for example. Investments in energy efficiency in the country can offer savings in energy consumption worth over €100 million by 2020.

The foundations were also laid for Belarus, Moldova and Ukraine to adopt their first sustainable public procurement plans thanks to UNEP guidance. This work will boost the domestic market for sustainable products.

**MOLDOVA CAN  
SAVE \$100  
MILLION  
BY 2020  
BY INVESTING IN  
ENERGY EFFICIENCY**

**29**  
**COUNTRIES**  
**AND NINE CITIES HAVE  
ADOPTED OR STARTED  
THE IMPLEMENTATION OF  
SUSTAINABLE CONSUMPTION  
AND PRODUCTION AND  
GREEN ECONOMY PATHWAYS  
SINCE 2011.**



A traffic light for cyclists next to a combined heat and power plant in Hanover, Germany. The plant is powered with natural gas and produces 255 MW electrical and 185 MW district heating at an efficiency factor of 90%. © Wolfgang Rattay / Reuters

## Illustrative policy changes in countries and cities

**Mongolia** adopted a Green Development Strategy with UNEP's assistance.

**Addis Ababa and Bahir Dar, Ethiopia**, mainstreamed sustainable consumption and production and green economy approaches into urban policy instruments.

**Rwanda and Brazil** began implementing sustainable consumption and production plans.





**Da Nang, Viet Nam**, defined its resource footprint and established targets to become more resource efficient.

## Sectors and supply

At the core of UNEP's work is enhancing the capacity of governments, businesses and other parties to adopt sustainable production and consumption practices in global supply chains in building and construction, food and agriculture (see the In Focus feature on page 43), finance and tourism sectors. Over the last two years, with UNEP support, 140 countries, institutions and businesses improved management practices or strategies in these sectors, bringing the total number reporting improved practices and the use of more resource-efficient tools to 222.

The financial sector is an increasingly vital target for UNEP engagement, which the organization carries out through both the UNEP Finance Initiative (see Climate Change chapter for more details) and the UNEP Inquiry, which in 2015 launched its report: *The Financial System We Need: Aligning the Financial System with Sustainable Development*. The report, which shows how to harness the assets of the world's financial system for sustainability, found that financial policymakers and regulators were increasingly taking steps to integrate sustainable development considerations into financial systems to make them fit for the 21st century. In Peru, for example, new due diligence requirements have been introduced for banks to help reduce social and environmental externalities.

## Changes in practices resulting from UNEP support

Country	Sector/Area of support	Result
France	Tourism	34 professionals and eight businesses achieved environmental certification labels and standards. Certified businesses decreased their energy and water consumption. The city of Nantes became the first European city to have co-certified hotel rooms.
		
India	Buildings and Construction	A social housing developer involved in slum re-development adopted sustainable design standards, increasing energy efficiency.
		
Global	Eco-Innovation and Supply Chains	175 stakeholders exposed to UNEP's operational approach to eco-innovation to boost profitability and sustainability in three supply chains (agri-food, metals and chemicals). 11 countries selected for implementation.
		
Sweden	Buildings and Construction	A construction company changed its sourcing and selection of construction materials of its 50,000 suppliers. As a result overall sustainability of its products has increased.
		

**“THE UNEP INQUIRY REPORT DELIVERS A VISION OF EMBEDDING SUSTAINABLE DEVELOPMENT INTO THE CORE OF FINANCIAL AND CAPITAL MARKETS.”**

**YI GANG, DEPUTY GOVERNOR OF THE PEOPLE'S BANK OF CHINA**

# RESOURCE EFFICIENCY AND SUSTAINABLE CONSUMPTION AND PRODUCTION

## Lifestyles and consumption

UNEP aims to provide enabling conditions for promoting more sustainable consumption choices and lifestyles. Progress here is demonstrated by the number of public and private sector institutions that put in place policies and measures conducive to sustainable consumption patterns. Supporting sustainable public procurement is one way to stimulate demand for, and supply of, sustainable products. Over the last two years, UNEP supported 20 countries on sustainable public procurement. Six of these countries are developing or implementing action plans in close coordination with the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns (10YFP), which is running programmes on Consumer Information, Sustainable Lifestyles and Education, Sustainable Public Procurement, Sustainable Buildings and Construction, Sustainable Food Systems, and Sustainable Tourism. Additionally, with UNEP's support, 27 companies –based in Brazil, Cameroon, Colombia, India, Peru and Uganda – have increasingly used life cycle-based approaches and tools.



UNEP Executive Director Achim Steiner and Goodwill Ambassador Yaya Touré arrive at World Environment Day 2015 celebrations in Italy in an electric car. The event ran under the theme 'Seven Billion Dreams. One Planet. Consume With Care.' The world's premier day for environmental action engaged the global community to encourage sustainable consumption practices. © UNEP

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### Bogotá, Colombia

In Bogotá, Colombia, 22 companies organized in a Life Cycle Management network and completed training in compliance. They are now implementing environmental management systems using life-cycle approaches.

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### Kashipur, India

In Kashipur, India, a company in the chemicals sector integrated life-cycle approaches into management practices.

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Education and awareness-raising are also important enabling conditions for more sustainable lifestyles. Over the last two years, UNEP supported activities that catalyzed the engagement of 18 stakeholders into the promotion of sustainable lifestyles – including through the joint UNEP/Food and Agriculture Organization initiative on reducing food waste, Think.Eat.Save. – bringing the total to 28 stakeholders. This brings the cumulative total to 82.

**For more information on UNEP's work on Resource Efficiency, visit [unep.org](http://unep.org) or follow us on Facebook or Twitter.**



Kaveh Zahedi, UNEP's Director for Asia and the Pacific, explains UNEP's work on food waste to Channel News Asia during a Think.Eat.Save event in Bangkok. © UNEP



## NEW RICE STANDARD BRINGS HOPE TO SMALLHOLDER FARMERS

**Like most small farmers in Cambodia, Rong Hom, a 44-year-old from the village of Skol in the southwest, faces growing threats from drought and rising fertilizer prices. She doesn't know how long her 1.5 hectare rice paddy can insulate her family from poverty.**

However, the world's first sustainability standard for rice, launched in October 2015, gives her hope. Rong, like many of her smallholder peers in Cambodia's Takeo and Pursat provinces, believes that implementing a globally accepted standard, as she is set to do, can lead to higher prices, stronger markets and ultimately better food security for her and her family.

The 46 criteria of the Standard for Sustainable Rice Cultivation aim to ensure that rice meets quality requirements and its cultivation benefits the environment, the economy and society at large. The standard can also be used to measure the sustainability of rice production systems and as a policy tool to promote wide adoption of sustainable rice farming.

The standard was developed by the Sustainable Rice Platform (SRP), a global alliance convened by UNEP and the International Rice Research Institute (IRRI) that comprises 32 rice research institutions, supply chain actors, and public sector and civil society organizations.

Global agribusiness giant Mars Food, one of several food industry leaders to have joined the SRP, has already promised to sustainably source 100% of its rice by 2020 through the standard.

**“The benefit for us is that is that we are ensuring premium quality rice, whilst also ensuring benefits for farmers, and a better environment for current and future generations,” said Fiona Dawson, president of Mars.**

Rice, the daily staple for 3.5 billion people, sustains the livelihoods of more than 140 million smallholder farmers and is grown on over 160 million hectares globally, an area larger than Mongolia. It plays a critical role in food security; therefore, finding a way to produce smarter is of major importance to the implementation of the 2030 Agenda for Sustainable Development. Currently, the crop uses more than 30% of the world's irrigation water and is responsible for 5-10% of emissions of methane, a greenhouse gas. Intensive and inefficient use of agrochemicals adds to farmer costs and undermines the long-term sustainability of rice farming.

Rice farmers across Asia, such as the Cambodian woman pictured, are set to benefit from a new sustainability standard.  
© AFP Photo / Tang Chhin Sothy

The SRP Standard comes with tools and trainings for farmers. For instance, farmers such as Rong will be trained on how to minimize their use of inorganic fertilizers, saving them money and reducing their greenhouse gas emissions, thus contributing to the global fight against climate change. Farmers will also be taught how to keep their paddies free from invasive species, and how to introduce fallow periods to help maintain their land's fertility.

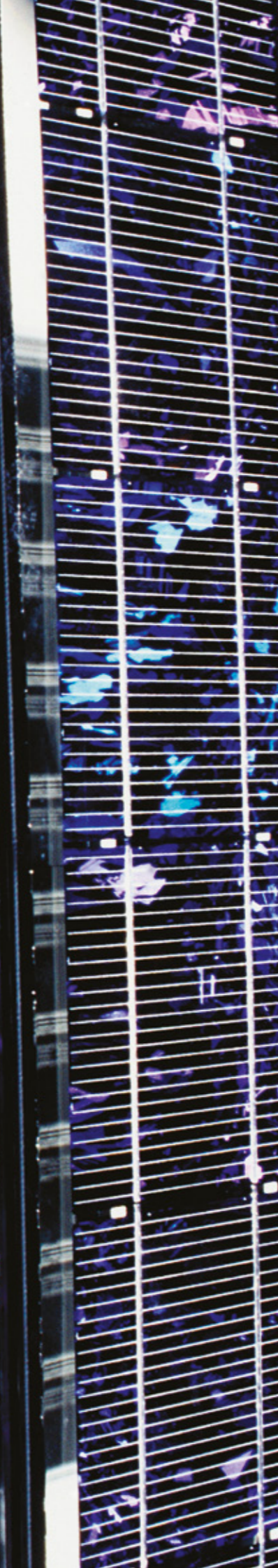
Rice Partners Ltd, a venture-backed business in Pakistan that works with rural smallholder rice farmers, is already using the standard and has high hopes for significant impact.

**“The standard indicators are incredibly helpful in designing and implementing sustainable rice supply chains worldwide. They have the potential to directly impact the world's poorest farming communities,” said Aamer A. Sarfraz, the company's founder. “We now have a framework against which we can measure our goals of increasing farmer livelihoods, protecting the environment, improving water efficiency and strengthening women workers.”**



# ENVIRONMENT UNDER REVIEW

**PROMOTING EVIDENCE-BASED  
DECISION MAKING THROUGH  
INTEGRATED KNOWLEDGE**





# ENVIRONMENT UNDER REVIEW

**To keep the environment under review, UNEP focuses on bridging the gap between the producers and users of environmental information, better linking science to policy. To do so, the organization focuses on three areas:**

- **Assessment** – Facilitating global, regional and national policy-making from environmental information made available on open platforms.
- **Early warning** – Enabling better policy planning that incorporates information on emerging environmental issues.
- **Information management** – Enhancing the capacity of countries to generate, access, analyze, use and communicate environmental information and knowledge.

## **Assessment, early warning and information management**

UNEP's work builds a strong foundation for the next generation of integrated environmental assessments and enables access to near real-time environmental data for analysis and decision-making – allowing policy makers working on the implementation of the 2030 Agenda for Sustainable Development and the Paris Agreement to make decisions based on the latest information.

The innovative online UNEP Live platform is designed to support assessments by making available global, regional and national data and knowledge. UNEP Live includes national data flows from 192 countries, lists global environmental reporting obligations for each country, and hosts a Sustainable Development Goal (SDG) portal and nine Communities of Practice with over 1,500 members. Near real-time data and maps available in UNEP Live cover a range of themes from air quality and sea-level rise to resource efficiency indicators, the Antarctic ozone hole, marine plastics and threatened species.

The UN's Chief Executives Board (CEB) in its session of 29 April 2015 recognized the innovative contribution that UNEP Live is making to harness the data revolution.

Through UNEP Live, UNEP is offering countries an online reporting tool to facilitate and strengthen data sharing, collection, analysis and reporting. This national reporting tool, the Indicator Reporting Information System (IRIS), was developed with support from the Abu Dhabi Global Environmental Data Initiative (AGEDI). UNEP also supports initiatives to make credible nationally generated data with country-specific environmental information accessible in comparable formats on public platforms. In the context of the GeoSUR programme, the geographic services of Chile, Colombia, Ecuador, Mexico and Uruguay are now sharing spatial environmental data and information using web-mapping services.

**UNEP LIVE INCLUDES NATIONAL DATA FLOWS FROM 192 COUNTRIES, LISTS GLOBAL ENVIRONMENTAL REPORTING OBLIGATIONS FOR EACH COUNTRY, AND HOSTS A SUSTAINABLE DEVELOPMENT GOAL (SDG) PORTAL AND NINE COMMUNITIES OF PRACTICE WITH OVER 1,500 MEMBERS.**



A large lightning strike seen from the International Space Station. © NASA / Reuters

## National Reporting System

### Demonstrated in 20 countries

Piloted in the **United Arab Emirates** by AGEDI

**Bosnia-Herzegovina, Kazakhstan** and **Kyrgyzstan** exploring the tool and open platforms for national use

**Samoa** leading the charge among Small Island Developing States (SIDS)

The sixth Global Environment Outlook (GEO-6), currently in progress, is now able to benefit from the data flows available in UNEP Live. Six Regional Environmental Information Network conferences were convened to identify key priorities and emerging issues to inform regional GEO-6 assessments and to discuss open access and data sharing in the context of UNEP Live and open data platforms.

## Key priorities identified for the six regional GEO-6 assessments to be launched in May 2016

**Africa:** Protecting and valuing Africa's natural capital

**Asia and the Pacific:** A healthy environment for sustainable development of economies

**Europe:** Well-being as the ultimate goal for development

**Latin American and the Caribbean:** Governing natural wealth

**North America:** Using data leadership, cities as living laboratories, and governance partnerships for the environment

**West Asia:** Peace and good environmental governance for sustainable development

By strengthening the science-policy interface, UNEP aims to increase the number of UN agencies and Multilateral Environmental Agreements (MEAs), as well as national, regional and global fora that use data on environmental trends. UNEP exceeded its target for December 2015 for UN agencies and MEAs and met the target set for use by fora and institutions. For example, the first volume of the Uganda Wetlands Atlas – which used satellite observation to track wetland changes in the urban areas of Kampala, Mukono and Wakiso – led to the initiation of an agreement on a wetlands restoration programme.

UNEP also aims to increase the number of stakeholders that are taking up scenarios and early warning on emerging environmental issues in their assessment and policy development processes. UNEP's early warning work, such as the UNEP Year Book 2014, creates attention and fosters timely action on emerging environmental issues that threaten sustainable development.



The Shoebill is facing extinction as a result of human encroachment on wetlands. The Uganda Wetlands Atlas has played a part in a new wetlands restoration programme. © STR New / Reuters

**“FACILITATING THE DIALOGUE BETWEEN SCIENCE, CIVIL SOCIETY AND POLICY MAKERS IS WHAT MAKES UNEP TICK. THERE IS NO POINT HAVING THE BEST SCIENTIFIC DATA AND THE MOST BRILLIANT MINDS IF THEIR OUTPUT CANNOT SERVE THE NEEDS OF PLANET AND PEOPLE.”**

**ACHIM STEINER,  
UNEP EXECUTIVE DIRECTOR**

## ENVIRONMENT UNDER REVIEW

To track progress towards the implementation of the environmental dimension of the 2030 Agenda for Sustainable Development, countries need to be empowered to monitor trends and manage data. A new SDG portal hosted on UNEP Live visualizes the linkages from the proposed indicators to targets and goals. Earth observation offers new opportunities to keep the environment under review. At the 2015 Eye on Earth summit, major players in environmental data committed to implementing a set of practical mechanisms to close the data gap that hampers decision- and policy-making for sustainable development. UNEP is committed to working with partners in the framework of the Global Earth Observation System of Systems, including on SDG indicators based on remote-sensing data, to ensure that countries have access to the relevant data flows that allow them to undertake regular indicator-based assessments and to report on progress towards relevant SDG targets.

**For more information on UNEP's work on keeping the environment under review, visit [unep.org](http://unep.org) or follow us on Facebook or Twitter.**



Progress towards sustainability can only be achieved if women and men are equally involved in development. UNEP is working with others on the first Global Gender and Environment Outlook. © Olivia Harris / Reuters



Eye on Earth is part of a movement to harness big data for policy-making. © Kim Kyung Hoon / Reuters



## LOW-COST DEVICE HELPS PREVENT DEATHS FROM AIR POLLUTION

**A ground-breaking air quality measuring device prototyped by UNEP, expected to cost up to 100 times less than high-end solutions, can revolutionize air quality measurement in developing countries and help prevent deaths from air pollution.**

The device will cost around \$1,500 per unit, allowing governments and local authorities to establish low-cost networks of stationary and mobile air monitoring stations.

Currently, the UNEP Live platform enables viewing of near real-time monitoring data of air quality from 2000 stations across the world. However, only a few of those stations are located in developing countries and their setup and calibration varies. Large-scale deployment of the new device can bridge this data gap and contribute to standardization of data collection.

**“Each year, air pollution causes 7 million premature deaths around the world, with outdoor pollution responsible for more than half of that total. Tragically, these deaths are wholly preventable,” said UNEP Executive Director Achim Steiner.**

**“88% of deaths related to outdoor pollution occur in low and middle-income countries. Yet it is these same developing countries that typically lack access to data on their air quality. UNEP’s device can spark a data boom to help countries reduce the negative effects of air pollution.”**

Many African cities suffer the consequences of poor air quality, mainly due to high levels of particulate matter, containing hazardous airborne chemicals. Most fine particulate matter comes from fuel combustion, both from vehicles and stationary sources such as power plants, industry and households.

UNEP’s device can measure the concentration of fine particulate matter, considered by the World Health Organization to have the greatest effect on human health. It also records the concentration of sulphur and nitrogen oxides and can be extended to measure other gases such as ozone.

The unit was designed for affordability, with less frequent calibration required and a durability of up to a couple of years before replacing the device sensors. A built-in GPS system means that the device can also be used as a mobile unit. UNEP is making the blueprints publically available to

Children ride their bicycles while wearing face masks to protect them from pollution in Indonesia. UNEP’s air quality monitor can help track pollution hotspots to inform policy-making. © AFP / Subex

governments to assemble or fabricate the units themselves, creating opportunities for innovation, enterprise development and green job creation. Since the launch in September, many requests have been received from companies, researchers, institutions and agencies.

The prototype is being tested in Nairobi, Kenya – home to UNEP’s headquarters. The testing is being conducted in cooperation with the Kenyan Ministry of Environment and Natural Resources and the Nairobi County.

**“We would like to establish as many as 50 more units with the assistance of UNEP,” said Prof. Judi Wakhungu, Kenya’s Cabinet Secretary for Environment, Natural Resources and Regional Development Authorities. “With more such units, Kenya will easily map air pollution hotspots in the urban and rural areas.”**

# SUSTAINABLE DEVELOPMENT GOALS

## UNEP's role in environmental sustainability for the 2030 Agenda

In September, the 2030 Agenda for Sustainable Development was adopted. The 17 Sustainable Development Goals (SDGs) aim to end poverty, protect the planet, and ensure peace and prosperity for all.

About half of the SDGs are directly environmental in focus or address the sustainability of natural resources: poverty, health, food and agriculture, water and sanitation, human settlements, energy, climate change, sustainable consumption and production, oceans, and terrestrial ecosystems.

UNEP promotes environmental sustainability as a crucial enabling factor in ensuring the health of our planet, and is committed to working with all parties to ensure the success of the ambitious agenda.

**15 LIFE ON LAND**



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

- 1 3 6 8  
9 11 12

**6 CLEAN WATER AND SANITATION**



Ensure availability and sustainable management of water and sanitation for all

- 1 12 15

**13 CLIMATE ACTION**



Take urgent action to combat climate change and its impacts

- 1 7 8 11 12


**2 ZERO HUNGER**



End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- 1 5 10  
11 12 14

**8 DECENT WORK AND ECONOMIC GROWTH**



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- 1 10 12

**1 NO POVERTY**



End poverty in all its forms everywhere

- 5 10 12 16

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**



Ensure sustainable consumption and production patterns

- 1 2 8  
11 14 15

**11 SUSTAINABLE CITIES AND COMMUNITIES**



Make cities and human settlements inclusive, safe, resilient and sustainable

- 1 2 3 8  
9 12 13

**7 AFFORDABLE AND CLEAN ENERGY**



Ensure access to affordable, reliable, sustainable and modern energy for all

- 1 2 3 4 6  
10 12 14 15

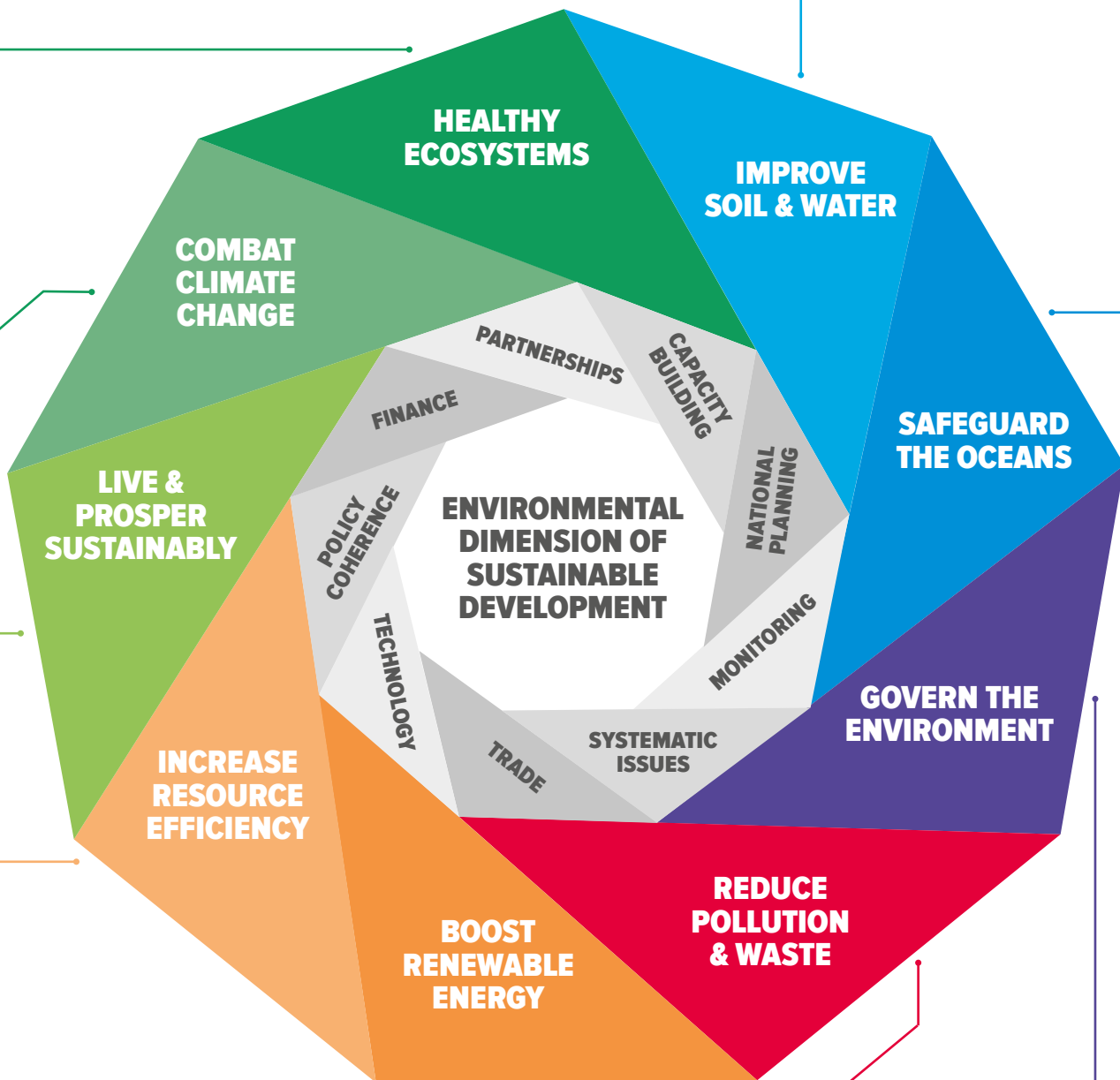
**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- 1 2 4 8  
10 12 13

 = Related goal



**10 REDUCED INEQUALITIES**

Reduce inequality within and among countries

- 1 12 14 15

**4 QUALITY EDUCATION**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

- 1 8 12

**14 LIFE BELOW WATER**

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

- 1 2 8 15

**16 PEACE, JUSTICE AND STRONG INSTITUTIONS**

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

- 1 10 12

**5 GENDER EQUALITY**

Achieve gender equality and empower all women and girls

- 1 2 3 4  
6 7 8 9  
10 11 12 13  
14 15 16

**3 GOOD HEALTH AND WELL-BEING**

Ensure healthy lives and promote well-being for all at all ages

- 1 8 10  
11 14 15

# MULTILATERAL ENVIRONMENTAL AGREEMENTS

## UNEP-HOSTED GLOBAL CONVENTIONS IN 2015



### The Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer

#### Dubai Pathway

Following six years of negotiations, the 197 parties agreed on the “Dubai Pathway on Hydrofluorocarbons (HFCs)”, a plan to work within the Montreal Protocol to an amendment in 2016 to control climate-change-inducing HFCs. An HFC phase-down would avoid estimated emissions of up to 105 gigatonnes of carbon dioxide equivalent by 2050, and up to 0.4°C of warming by the end of the century.

**ON AVERAGE, THE MOST-COMMON HFCs HAVE 2,500 TIMES THE GLOBAL WARMING POTENTIAL OF CO<sub>2</sub>**

#### Synthesis Report of 2014 Assessments

The Montreal Protocol has led to the phase-out of nearly 100% of production and consumption of ozone-depleting substances globally. The Synthesis of the 2014 Reports of the Scientific, Environmental Effects, and Technology & Economic Assessment Panels of the Montreal Protocol confirmed that the ozone layer is healing.

Up to 2 million cases of skin cancer may be prevented each year by 2030. In the USA alone, 283 million cases of skin cancer may be avoided for those born between 1890 and 2100; 1.6 million deaths from skin cancer prevented; and 46 million cases of cataract prevented.

The Montreal Protocol, through halting ozone layer depletion, could save an estimated \$1.8 trillion in health care costs and almost \$460 billion in avoided damages to agriculture, fisheries, and materials.

#### 30th Anniversary of the Vienna Convention

In 2015, the world marked the 30th anniversary of the Vienna Convention for the Protection of the Ozone Layer. A digital campaign organized by UNEP’s Ozone Secretariat to commemorate the milestone reached 1,346,012 people.

### Basel, Rotterdam and Stockholm Conventions (BRS)

#### Triple Conference of the Parties and associated scientific and technical assistance activities:

**3 carbon-neutral meetings** of the conferences of the parties to the Basel, Rotterdam, and Stockholm Conventions;

**1,188 participants** from 171 countries and 84 non-governmental organizations;

**74 Science Fair** and Side Events;

**73 decisions taken;**

**135 press articles** published from 35 countries;

**3 Persistent Organic Pollutants (POPs)** added to the Stockholm Convention;

**1 pesticide** added to the Rotterdam Convention;

**9 Technical Guidelines adopted** on hazardous waste streams and 3 Guidelines on Implementation under the Basel Convention.

**5 Monitoring reports** on POPs’ levels in the environment and humans from 5 UN regions;

**1 Global Monitoring Plan Data Warehouse** providing public access to global POPs data;

**1,525 participants benefitted from BRS Webinars**, of which 52% were female.



## Convention on Biological Diversity (CBD)

**Andorra and the State of Palestine ratified the Convention in 2015**, bringing the total number of Parties to 196.

**168 Fifth National Reports**, an important source of information for review of progress towards the implementation of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, have been completed.

**184 Parties have completed National Biodiversity Strategies and Action Plans (NBSAPs)**, while 9 Parties are developing their first plans.

### Connecting Global Priorities

Biodiversity and Human Health, launched in June 2015 at Green Week with the World Health Organization, drew on the expertise of over 100 scientists to detail the latest biodiversity loss.

### The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity

13 new Parties, including Croatia and Cuba, ratified the Nagoya Protocol in 2015, bringing the total to 70.

### Cartagena Protocol on Biosafety to the Convention on Biological Diversity

Côte d'Ivoire and the State of Palestine ratified the Cartagena Protocol in 2015, bringing the total number of parties to 170.



## Convention on Migratory Species (CMS)

**Afghanistan and Brazil ratified the CMS in 2015**, bringing the total number of Parties to 122.

**Comoros, Iran, Israel, Croatia, Lebanon, Spain and the Syrian Arab Republic signed the Memorandum of Understanding Concerning the Conservation of Migratory Birds of Prey in Africa and Eurasia**, bringing the total number to 55. Of 20 raptor species added to the Annex on this MoU, 17 were vultures, which are facing a crisis in Africa.

**New Zealand signed the Memorandum on the Conservation of Migratory Sharks**, bringing the total number of signatories to 39.

**The 3rd Meeting of the Signatories to the Saiga MOU adopted new measures**, including mitigating or removing obstacles to saiga antelope migration, undertaking anti-poaching action and strengthening wildlife health management. The CMS sent an emergency mission to investigate the deaths of over 211,000 saiga, which occurred in Kazakhstan in May 2015.

**On the 25th Anniversary of the Agreement on the Conservation of Seals in the Wadden Sea**, a record number of harbour seal pups were counted.



## Convention on International Trade in Endangered Species of Wild Fauna and Flora

**1 new Party to CITES** – the European Union;

**CITES-led International Consortium on Combating Wildlife Crime (ICCWC)** celebrated 5th anniversary;

**19 Parties to CITES developed and continued to implement National Ivory Action Plans (NIAPs)**;

**62 countries** in Africa, America, Asia and Europe worked together in ICCWC-backed cross-continent initiative;

**64 Notifications** to the Parties sent to 181 Contracting Parties to CITES;

**Operation COBRA III** resulted in 139 arrests and more than 247 seizures, including elephant ivory, rhino horns, pangolins, rosewood, tortoises and many other plant and animal specimens;

**290 participants** at 28th meeting of the CITES Animals Committee and 22nd meeting of the CITES Plants Committee;

**CITES Facebook** reached over 400,000 followers;

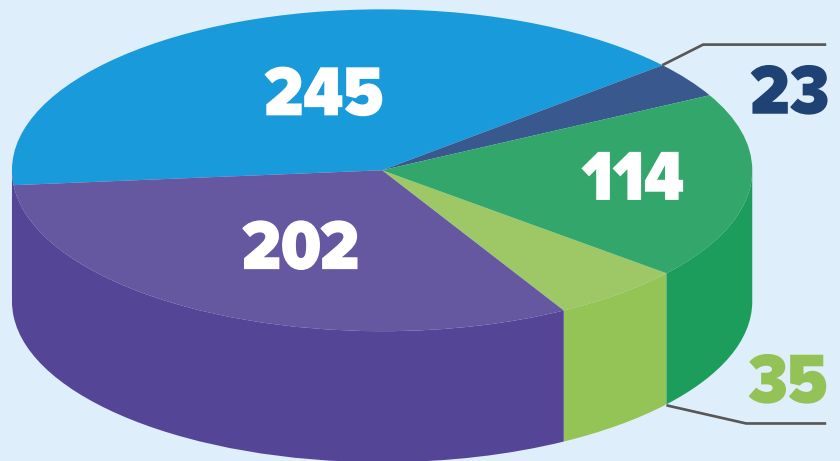
**CITES Trade Database** passed 15 million records;

**190 million people** reached in CITES-led social media campaign to celebrate World Wildlife Day 2015 on Facebook and Twitter alone.

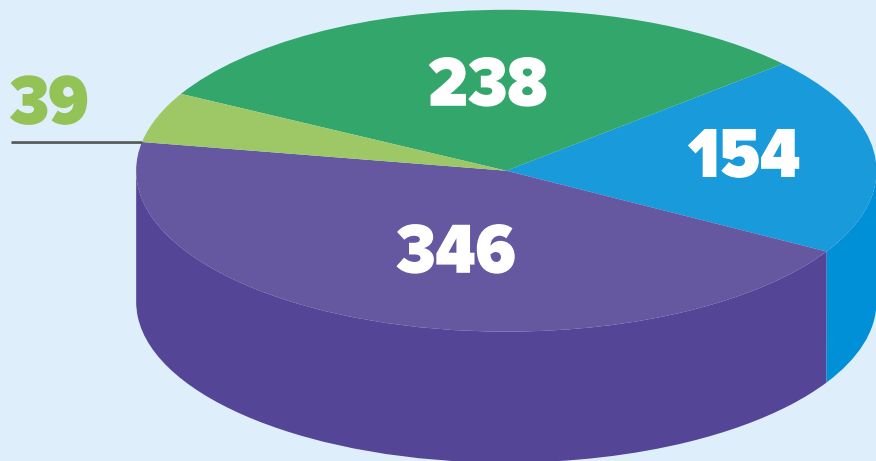


**KEY FINANCIALS**  
2014 – 2015

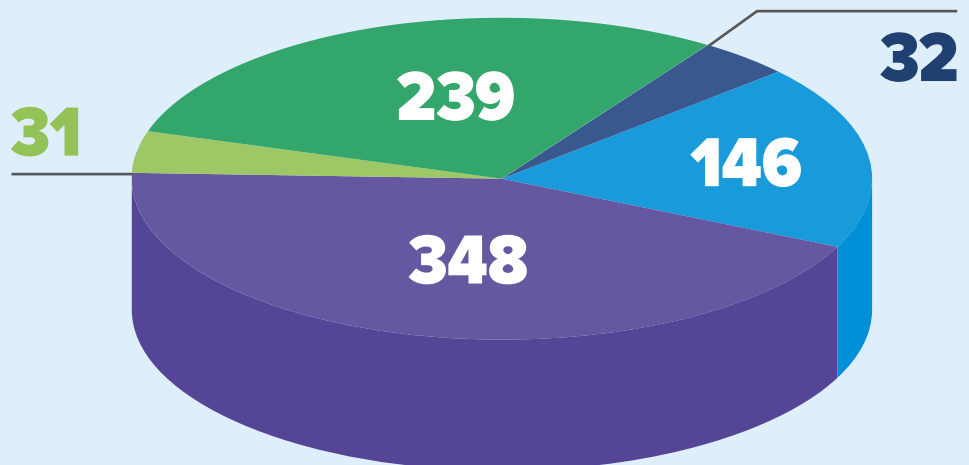
**TOTAL  
PLANNED  
BUDGET  
\$MILLION**  
**619**



**TOTAL  
INCOME  
\$MILLION**  
**777**



**TOTAL  
EXPENDITURES  
\$MILLION**  
**796**



\*Expenditures were able to exceed income as a result of balances brought forward from the past biennium that were to be spent in the 2014-2015 biennium. \*\* Income inclusive of programme support.

These figures are indicative and could change when the final accounts are completed in April 2016.

# RECOGNITION OF DONOR CONTRIBUTIONS

**UNEP extends its heartfelt thanks to the donors and partners for their continued generosity to UNEP. With their support, UNEP received \$777 million in total income for 2014-2015 – a new record in UNEP’s 43-year history.**

Several important trends could be observed during the biennium. Environment Fund income did not rise in line with the approved budget. Some of the impact was mitigated by the availability of extra-budgetary funding from a number of partners, which could be allocated across the seven sub-programmes.

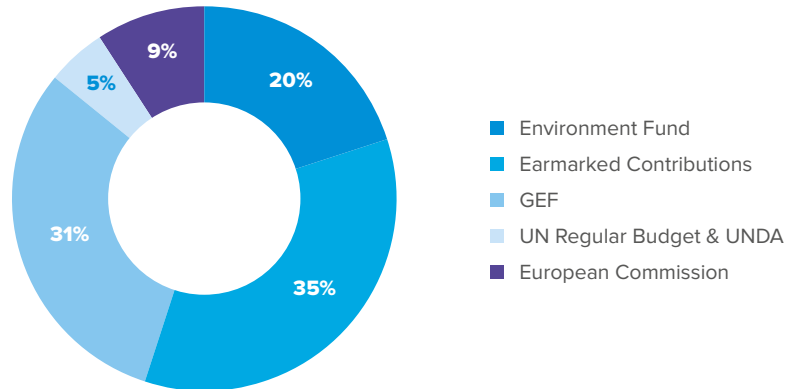
Regular Budget funding increased by 134% (to \$39 million). Following the General Assembly adoption of the 2016/2017 budget, this will rise to \$47 million for the next biennium. Earmarked contributions exceeded planned targets by 71%, reflecting a strong upward trend in the demand for UNEP’s services.

For 2014-2015, 5% of the total income was received from the UN Regular Budget including the UN Development Account, 20% was from the Environment Fund, which facilitates the implementation of activities in all areas of the Programme of Work, and 75% was from earmarked contributions, including the Global Environment Facility (GEF) and the European Commission, which deliver projects aligned with the Programme of Work.

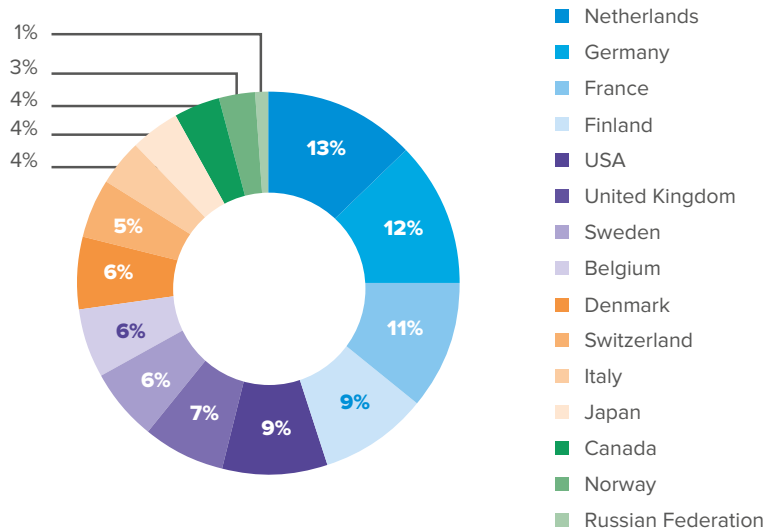
In 2015, only 39% of the 193 member states made contributions to UNEP to support its programmes.

Ensuring the stability and security of UNEP’s funding is necessary to achieve the aspirations set by the global community in the 2030 Agenda and the Paris Agreement on Climate Change in 2015.

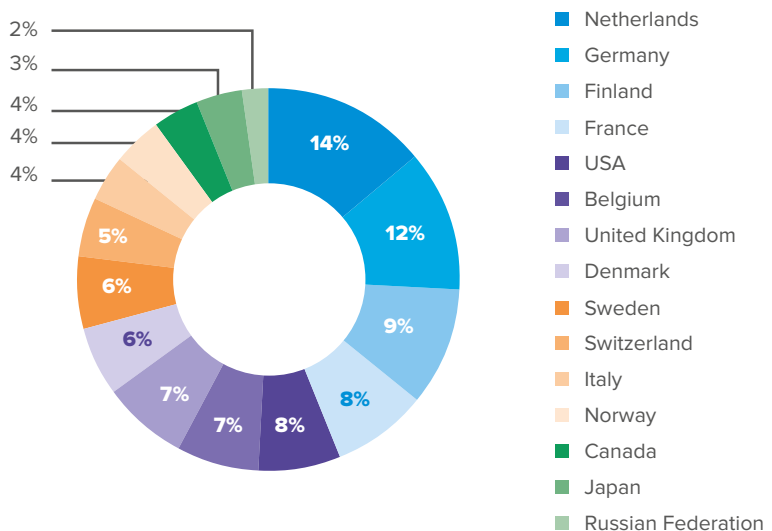
**Graph 1: 2014-2015 Sources of Funding**



**Graph 2: Top 15 Contributors to the Environment Fund in 2015**



**Graph 3: Top 15 Contributors to the Environment Fund in 2014**



# CHAMPIONS OF THE EARTH

**Five inspirational environmental leaders from the worlds of government, business, research and grassroots activism received the UN's highest environmental accolade, the Champions of the Earth Award, at a ceremony marking the close of the Sustainable Development Goals summit in September 2015.**

The annual prize is awarded to outstanding leaders from government, civil society and the private sector whose actions have had a positive impact on the environment.

H.E. Sheikh Hasina, Prime Minister of Bangladesh, the National Geographic Society, Paul Polman, CEO of Unilever, the Black Mamba Anti-Poaching Unit and Brazilian cosmetics firm Natura were all recognized for their achievements.

The 2015 awards, presided over by UNEP Goodwill Ambassadors, actor Ian Somerhalder and model Gisele Bündchen, as well as actress Nikki Reed, were focused on supporting the Sustainable Development Goals.

The awards do so by illustrating – through the examples of the laureates – that the transition to low-carbon, resource-efficient, inclusive and sustainable economic models is not just possible, but already in progress.

**“At the summit, we witnessed a historic moment. 193 nations committed to a sustainable path forward for the entire planet and its peoples through the adoption of the Sustainable Development Goals. This is a major achievement, but the hard work now begins in earnest,” said UNEP Executive Director Achim Steiner.**

**“With 17 goals that integrate all aspects of our economies, societies and the environment, the challenge is formidable. Each of these five Champions of the Earth demonstrates that this challenge can, and I believe will be met to help usher in an equitable and sustainable future for all.”**

**For more information on the award, visit [www.unep.org/champions](http://www.unep.org/champions)**



Natura, for unparalleled commitment to trailblazing sustainable business models. © Marlos Bakker Fotografia LTDA



Clockwise from bottom left: Nikki Reed, Ian Somerhalder, UNEP Deputy Executive Director Ibrahim Thiaw, Gisele Bündchen, UNEP Executive Director Achim Steiner. © Brashler / Fischer



H.E. Sheikh Hasina, Prime Minister of Bangladesh, for leadership on the frontline of climate change. © UNEP



National Geographic Society, for over a century of life-changing science, exploration and storytelling. © Michael Nichols

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The Black Mamba Anti-Poaching Unit (South Africa), for outstanding courage in fighting the illegal wildlife trade at community level. © UNEP

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Paul Polman, CEO of Unilever, for challenging business norms to show that sustainable, equitable and environmentally-conscious business is smart business. © UNEP

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## GOODWILL AMBASSADORS



### BERTRAND PICCARD

at the Paris Climate Meeting, where he became UNEP's newest Goodwill Ambassador



### JACK JOHNSON

during a World Environment Day beach cleanup in the Bahamas.

**Switzerland's Bertrand Piccard, the visionary behind the only airplane capable of flying day and night, without a drop of fuel, and acclaimed musician Jack Johnson became UNEP's newest Goodwill Ambassadors in 2015.**

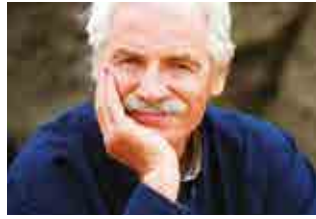
To bring the world's attention to the potential of solar energy, Mr. Piccard and his colleague André Borschberg are flying around the world in an exclusively sun-powered airplane, Solar Impulse. They have already covered 19,957 kilometres between Abu Dhabi and Hawaii.

**"This designation is an encouragement to continue showing how many incredible things can be done with renewable energies, but also to implement more energy efficient technologies in our world," said Mr. Piccard as he took up his role during the Paris Climate Meeting in December 2015.**

As a UNEP Goodwill Ambassador, he will use his popularity to convince the world's policy-makers, entrepreneurs and communities that a carbon-neutral world is no less possible than flying around the world without fuel. He will also use the remaining stages of his solar journey to engage with children and youth, raising their awareness of efficient energy consumption.



**RAGHEB ALAMA**  
Goodwill Ambassador, Arab Region



**YANN ARTHUS-BERTRAND**  
Goodwill Ambassador



**LI BINGBING**  
Goodwill Ambassador



**GISELE BÜNDCHEN**  
Goodwill Ambassador



**DON CHEADLE**  
Goodwill Ambassador



**PATRICK MAKAU**  
Patron for Clean Air



**SUZANNA OWIYO**  
Goodwill Ambassador, Kenya



**LEWIS PUGH**  
Patron for Oceans



**IAN SOMERHALDER**  
Goodwill Ambassador



**PAVAN SUKHDEV**  
Goodwill Ambassador



**YAYA TOURÉ**  
Goodwill Ambassador



**ERIC WAINAINA**  
Goodwill Ambassador, Kenya

Mr. Johnson, the multi-platinum recording artist, widely acclaimed for his environmental work, took up his mantle on World Environment Day (WED) – the United Nations’ principal vehicle for raising worldwide awareness and encouraging action for the environment, celebrated in more than 100 countries.

**“Becoming a UNEP Goodwill Ambassador is an honour for me,” said Mr. Johnson. “In Hawai`i, when we work together we say *Laulima*, which means ‘many hands’. It is always impressive to see what can be accomplished when you build the right team and get all those hands working together. I see this relationship with UNEP as a way to inspire more people to be active in their local communities.”**

WED 2015 – held under the slogan ‘Seven Billion Dreams. One Planet. Consume with Care’ – focused on the theme of sustainable consumption as a means to achieve equitable and inclusive development while minimizing the overexploitation of natural resources and adverse environmental impacts.

Since 2001, Mr. Johnson’s albums have sold over 20 million copies worldwide. His Brushfire Records label and touring crew have been leaders in the greening of the music industry and his All At Once social action network has mobilized millions of young people to become active in environmental protection. Mr. Johnson will help to generate interest and mobilize positive action for environmental causes in support of UNEP’s work. He will focus particularly on issues such as marine litter and promoting sustainable food systems and plastic-free initiatives.

UNEP’s existing 12 Goodwill Ambassadors and Patrons in 2015 continued to use their fame to raise awareness of, and prompt action on climate change, the illegal wildlife trade and marine protection – engaging in events such as WED and the UNEP Champions of the Earth awards. UNEP would like to express its appreciation for the commitment of all its Ambassadors and Patrons to changing public attitudes to the environment.

**For more information, visit [www.unep.org/gwa](http://www.unep.org/gwa)**

## MAURICE STRONG (1929 – 2015)



**LATE LAST YEAR, THE WORLD LOST ONE OF ITS GREATS WHEN MAURICE STRONG, THE FOUNDING EXECUTIVE DIRECTOR OF UNEP, PASSED AT THE AGE OF 86 – JUST DAYS BEFORE THE PARIS AGREEMENT THAT IS, IN MANY WAYS, A LEGACY OF HIS LIFE OF ENVIRONMENTAL LEADERSHIP.**

**Maurice Strong was a truly exceptional human being and a leader in the global family. Few individuals can claim to have shaped the course of history over the past 50 years in the way Maurice Strong did, and he continued to exert huge influence until the last days of his life.**

His courageous leadership allowed the Stockholm Conference of 1972 to make history by launching a new era of international environmental diplomacy, which saw the birth of UNEP, the first UN agency to be headquartered in a developing country. He accepted the appointment to become UNEP's first Executive Director and moved to Kenya to establish UNEP's iconic global headquarters on what was then a coffee farm on the outskirts of Nairobi.

Maurice Strong will forever be remembered for placing the environment on the international agenda and at the heart of development. He shepherded global environmental governance processes – from the original Rio Earth Summit, Agenda 21 and the Rio Declaration to the launch of the UN Framework Convention on Climate Change and the Convention on Biological Diversity.

At the 2014 UN General Assembly, Maurice Strong called on world leaders to “rise to their historic responsibility as custodians of the planet, to take decisions that will unite rich and poor, North, South, East and West, in a new global partnership to ensure our common future”.

This call to action – building on the sustainability road-map which started in Stockholm and continued in Rio, Johannesburg and Rio+20 – became reality last year with the 2030 Sustainable Development Agenda and the Paris Agreement. There can be no more fitting tribute to Maurice Strong's legacy.

UNEP mourns his loss, and is grateful to this day for the vision and leadership he brought to the environmental challenges of our generation and his role in forging a new vision for sustainable development.

# UNEP LEADERSHIP

## SENIOR MANAGEMENT TEAM



**ACHIM STEINER**

UNEP Executive Director and Under-Secretary-General of the United Nations



**IBRAHIM THIAW**

UNEP Deputy Executive Director and Assistant Secretary-General of the United Nations



**ELLIOT HARRIS**

Director, New York Office and Assistant Secretary-General of the United Nations



**MICHELE CANDOTTI**

Chief, Executive Office and Principal Advisor to the Executive Director



**JACQUELINE MCGLADE**

Director, Division of Early Warning and Assessment (DEWA)



**ELIZABETH MREMA**

Director, Division of Environmental Law and Conventions (DELIC)



**LIGIA NORONHA**

Director, Division of Technology, Industry and Economics (DTIE)



**THERESA PANUCCIO**

Director, Office of Operations and Corporate Services



**NAYSÁN SAHBA**

Director, Division of Communications and Public Information (DCPI)



**METTE LØYCHE WILKIE**

Director, Division of Environmental Policy Implementation (DEPI)

## REGIONAL DIRECTORS



**IYAD ABUMOGHLI**

Regional Office for West Asia



**PATRICIA J. BENEKE**

Regional Office for North America



**JAN DUSÍK**

Regional Office for Europe



**LEO HEILEMAN**

Regional Office for Latin America and the Caribbean (as of 1 February 2016)



**JULIETTE BIAO KOUDENOUKPO**

Regional Office for Africa



**KAVEH ZAHEDI**

Regional Office for Asia and the Pacific

## EX OFFICIO MEMBERS OF SENIOR MANAGEMENT TEAM



**MUNYARADZI CHENJE**

Director, Regional Support Office



**JORGE LAGUNA-CELIS**

Secretary, ai, Secretariat of Governing Bodies and Stakeholders



