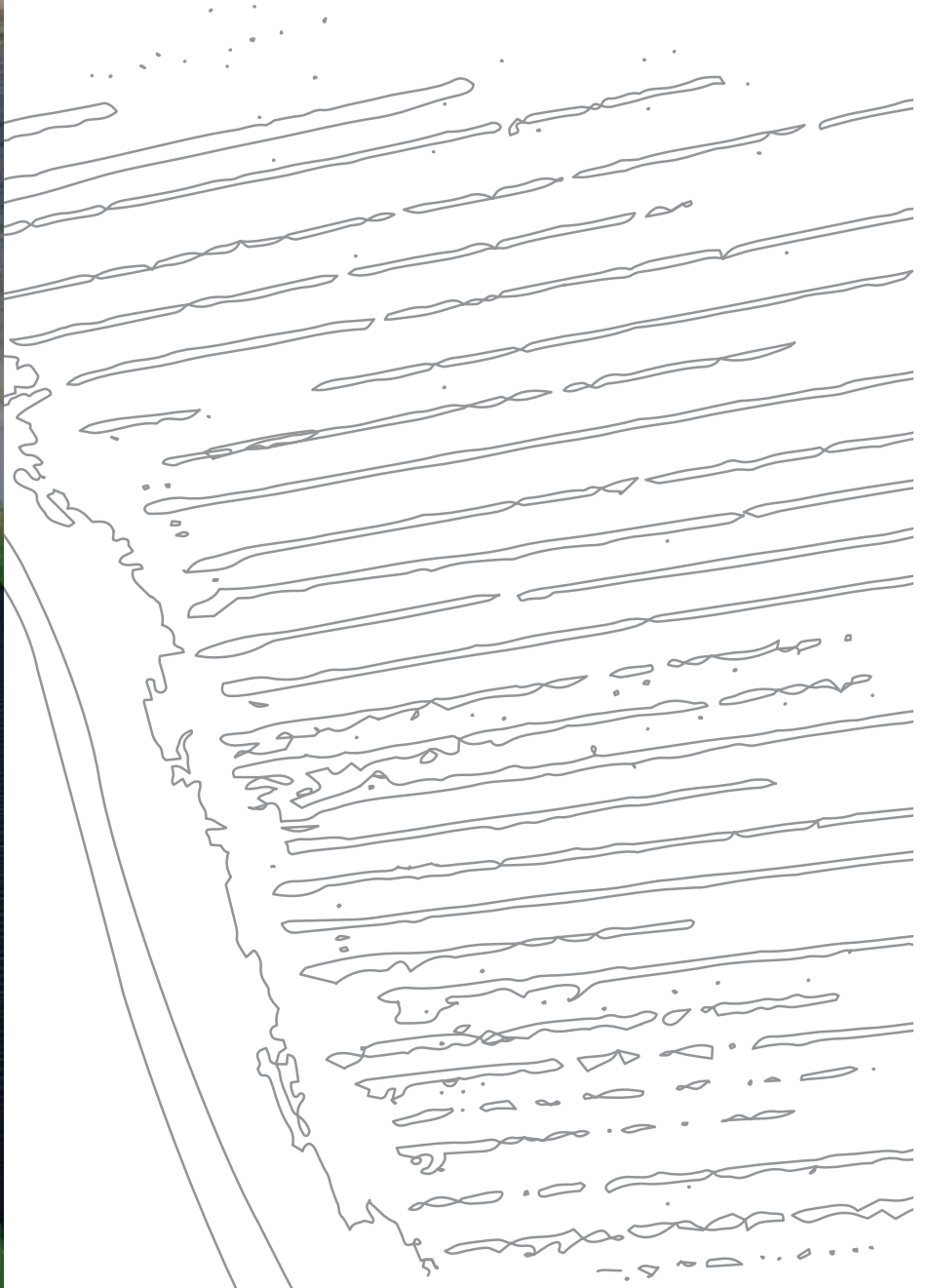




CHEMICALS AND WASTE

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

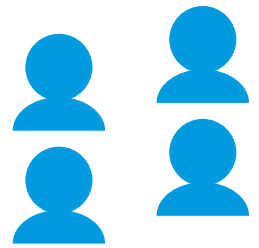
COMPRISING
\$39.4
MILLION



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 or follow us on Facebook or Twitter.

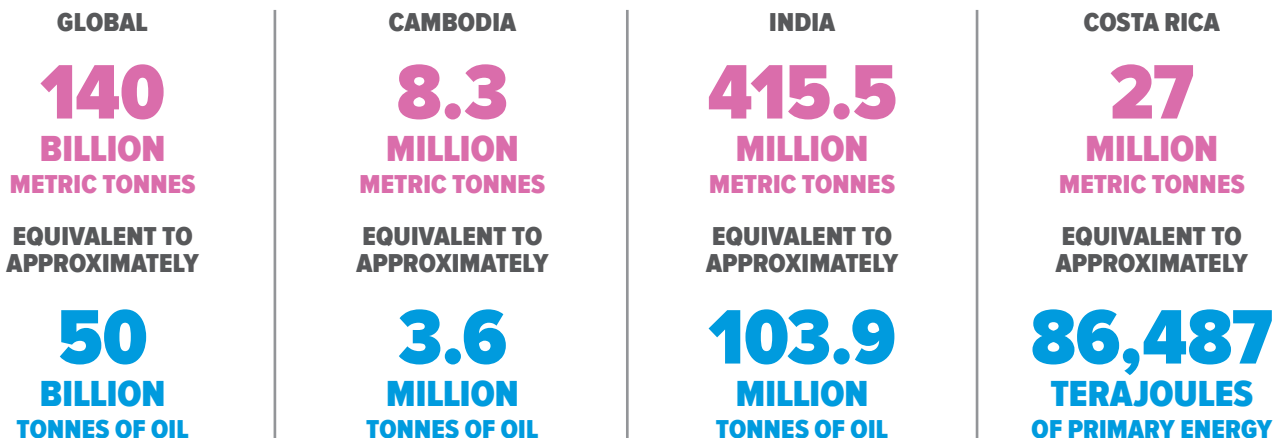
The PCB Elimination Network (PEN)

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.”