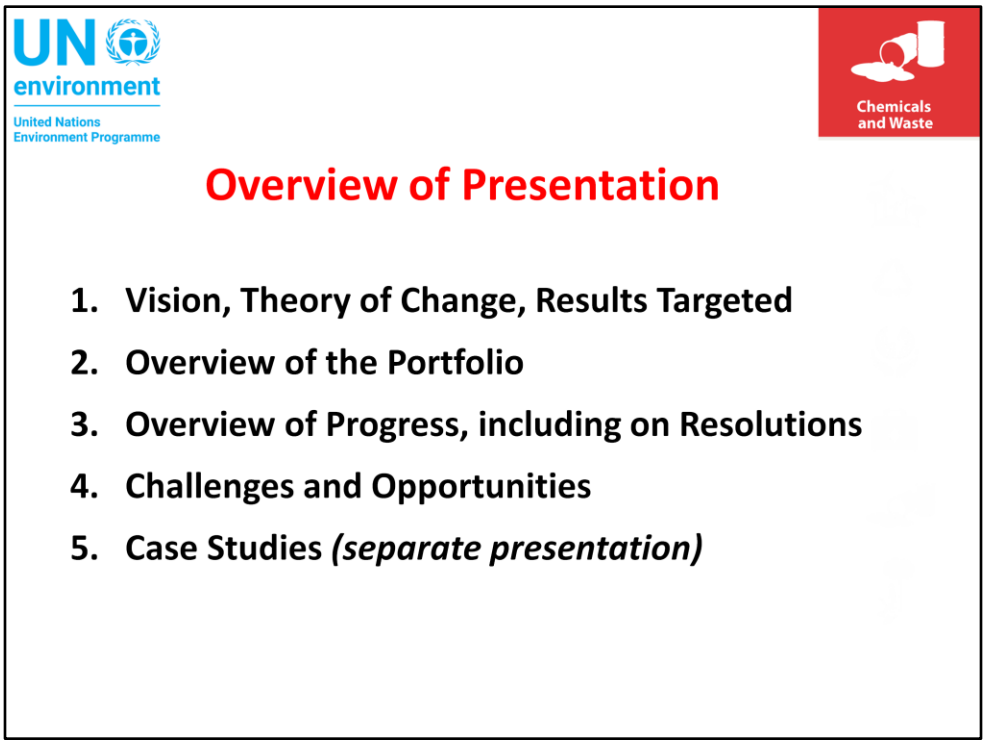
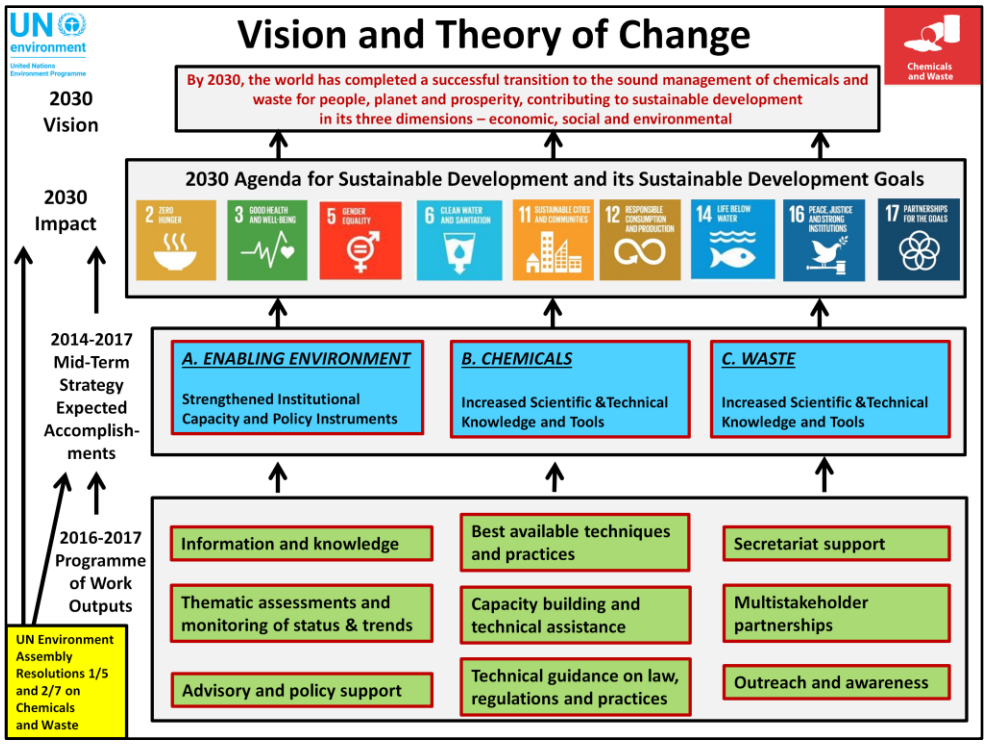
UN Environment's **programme on chemicals and waste** aims at supporting the **transition towards the sound management of chemicals and waste**.



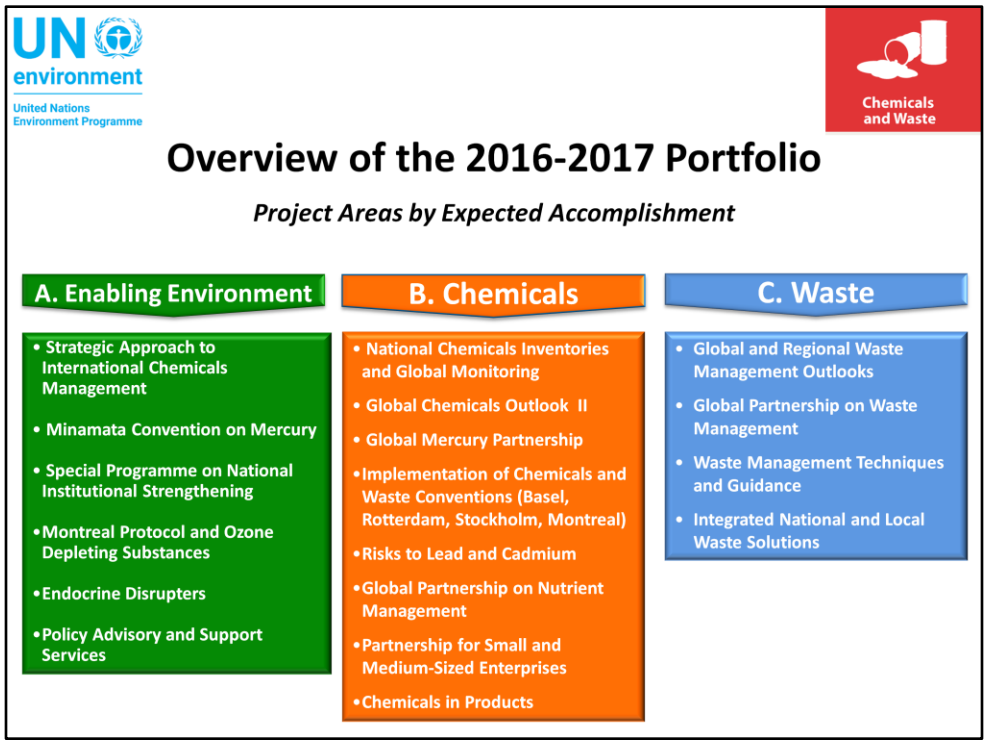
The presentation includes a **vision for 2030**. It discusses the **theory of change** that is expected to deliver on the **targeted results** and sustainable development goals. It then presents an overview of the **Project Portfolio** for the 2014-2017 period. This is followed by an **overview of outcome-level results** achieved during 2016. Next, **challenges and opportunities** are discussed. At the end of this presentation some **case studies at country level** will be shared.



The **Vision** of our work on chemicals and waste is that, by 2030, the world has completed a successful transition to the sound management of chemicals and waste, for people, planet and prosperity, contributing to sustainable development in its three dimensions – economic, social and environmental.

To achieve this vision, a **Theory of Change** has been developed, showing the **chain of results** from 2016 up to 2030. The diagram clearly shows that the subprogramme addresses at least nine **Sustainable Development Goals**, having impact on issues like hunger, health, gender, water, cities, sustainable consumption and production, oceans, peace and partnerships.

The **2030 goals** are targeted by achieving **three Expected Accomplishments (i.e. results)**: one on creating an Enabling Policy Environment, one on science and tools for chemicals, and a similar one for waste. Some nine types of **Outputs** deliver on these three Expected Accomplishments, ranging from scientific assessments, to advisory services, capacity building, partnerships, and awareness raising. The Outputs and Expected Accomplishments also deliver impact on at least two **UN Environment Assembly Resolutions**: 1 slash 5, and 1 slash 2, which call for further action on sound management of chemicals and waste.

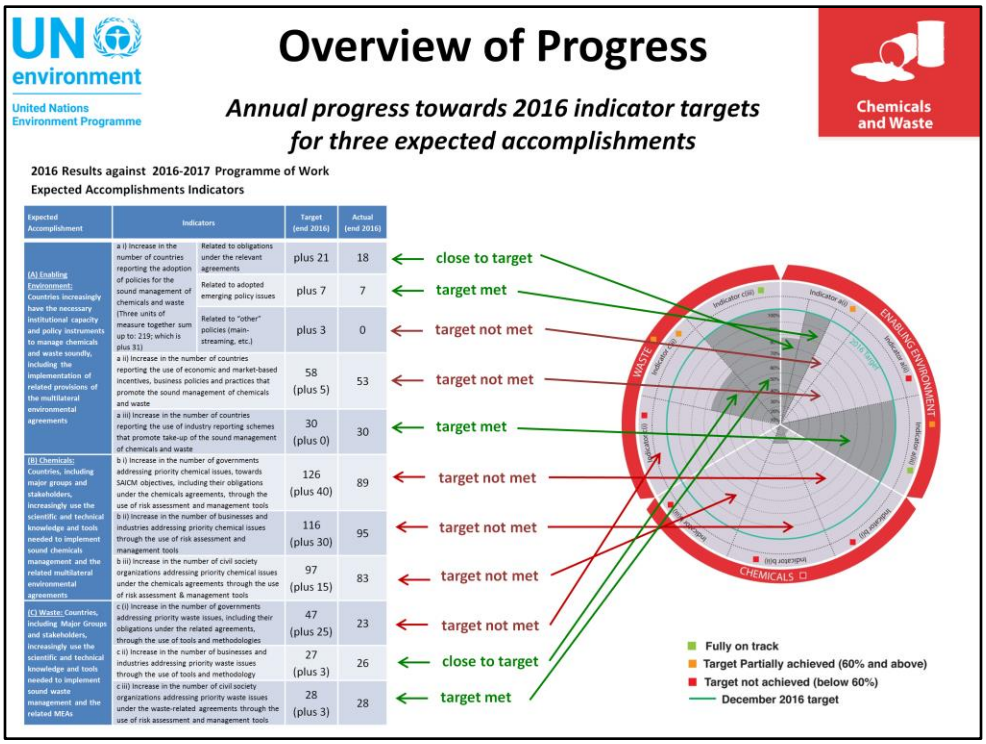


Here you see an overview of the **2014-2017 Portfolio of Projects**. The projects are organized by Expected Accomplishment.

Under the **first one** you will note our work on the **Strategic Approach to International Chemicals Management** for which we provide the Secretariat. Similarly, UN Environment hosts the Interim Secretariat of the **Minamata Convention on Mercury**, and the Secretariat of the **Special Programme** that supports **national institutional strengthening**. This accomplishment also includes action on phasing out **Ozone Depleting Substances**, and addressing **Endocrine Disrupters**.

The **second accomplishment,** which is on **Chemicals knowledge and tools**, has a variety of projects, ranging from the **Global Chemicals Outlook 2**, and our work on phasing out **lead and cadmium**, to multistakeholder partnerships like the **Global Mercury Partnership**, the **Global Partnership on Nutrient Management**, and partnerships with **small and medium-sized enterprises**.

The **last accomplishment** addresses **Waste** management issues. It includes the **global and regional Waste Outlooks**, the **Global Partnership on Waste Management**, and the development of **techniques and solutions** for preventing and managing waste in a more **holistic and sound manner**.

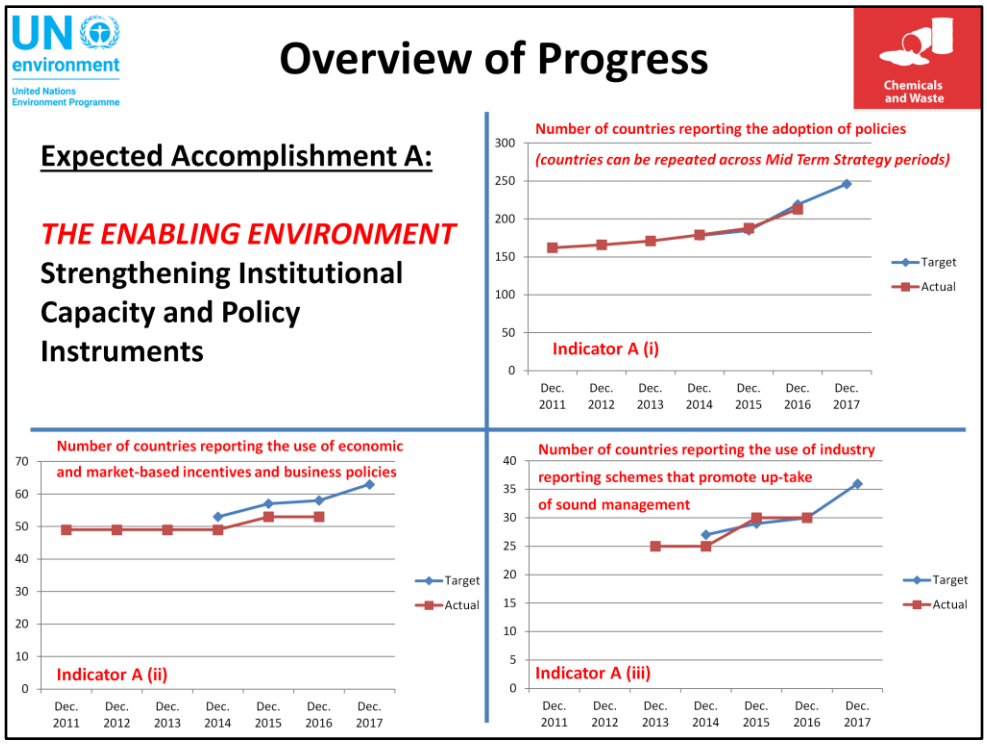


Here, a **quick overview of progress towards 2016 indicator targets** is presented.

At the end of 2016, UN Environment's work on chemicals and waste **has achieved expectations** set out for the biennium **in a few areas only**, while in other areas the indicator targets have been **met partially**.

Several **targets set for 2016** indicate, that an **exponential increase in results was expected to occur, when the targets were set four years ago**. **For instance, all three indicators for Expected Accomplishment B targeted exponential increases in results. The reality seems to be different, however. Results appear to be achieved in a more linear fashion. This is demonstrated clearly for results achieved towards meeting the Indicator A and C targets which show gradual increases.**

In the next few slides, we will present a **more detailed analysis of progress for each of the expected accomplishments, individually**, and **provide examples of key results achieved** for each of these expected accomplishments.



This slide provides insight into the **results trends of Expected Accomplishment A**, over the **past five years**. Graphs depict **results** obtained since 2011, shown in **red dots**, and **targets** set for each year since 2014, covering the two Programme of Work bienniums, shown as **blue dots**.

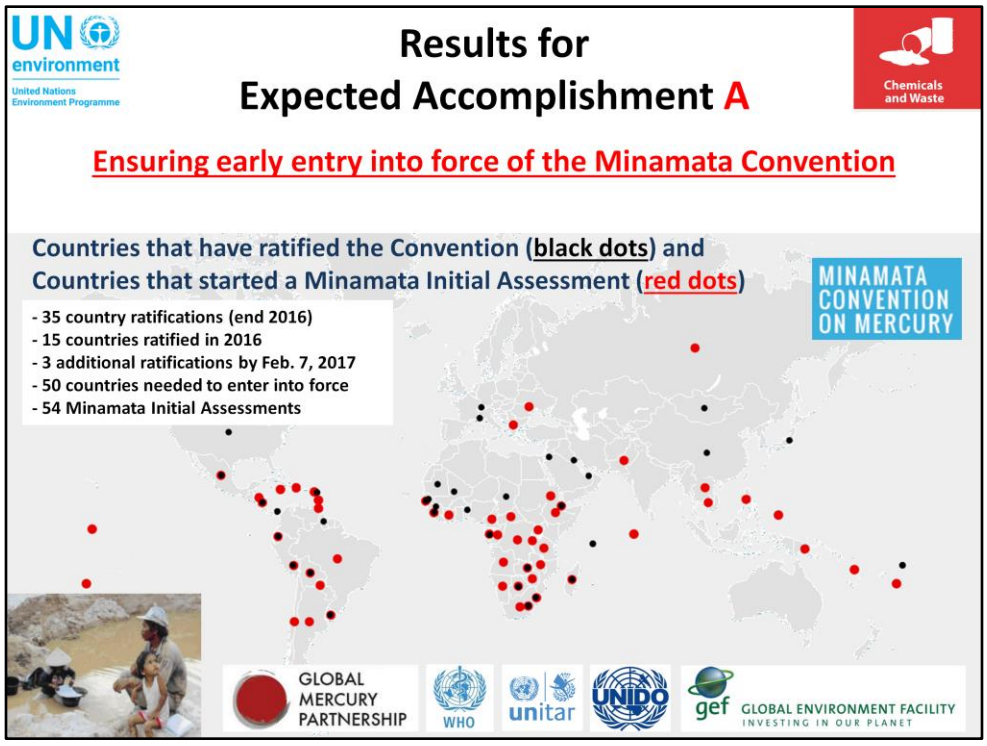
Indicator A-one in the **upper right corner** shows the number of **countries reporting the adoption of relevant policies**. This includes, for instance, countries that have ratified the Minamata Convention, or countries that have put in place controls over lead-in-paint.

In the **lower left corner**, **Indicator A-two** shows the number of countries that reported the **use of economic and market-based incentives**, certification schemes, and sound business policies and practices. This includes countries that have established market based third-party certification schemes for lead free paints or electronic waste.

Indicator A-three in the **lower right corner** shows the number of **countries reporting the use of industry reporting schemes** that promote up-take of sound management of chemicals and waste. An example is the number of countries reporting industries that have used the UN Environment toolkit on dioxins and furans for industrial emission control.

In general, the three **results trends show a gradual increase over time**. The results of

Indicator A-one on the adoption of policies shows a **close trend with the targets** that were set over the years. The same is true for **Indicator A-three** in the lower right corner. However, **progress on Indicator A-two, in the lower left corner, is lagging behind the targets set for the period 2014-2016**. It appears that UN Environment and governments would **need to upscale further their work** on country-level reporting, on the use of economic and market-based incentives and sound business policies, to ensure we get closer to the annual targets each year.



A big part of UN Environment's policy work on chemicals focuses on **mercury**. Levels of mercury in open-ocean fish are increasing, at the same rate as the rise that occurs in mercury that has made its way to the ocean. Recent data show that mercury contamination has actually reached levels that would make certain fish unsafe for consumption and **causing health concerns**.

To address this challenge the **Minamata Convention on Mercury** was adopted in 2013, counting on **128 signatories**. The **Interim Secretariat** of the convention is hosted by UN Environment in Geneva. In March 2016, the Seventh Session of the **Intergovernmental Negotiating Committee** for the Minamata Convention was held in Jordan.

As at December 2016 a total of **35 countries had ratified the convention,** to becoming a Party to the convention. **Almost half of these countries (15) did so during 2016**. These are: Antigua and Barbuda, Benin, Bolivia, Botswana, China, Ecuador, Gambia, Japan, Mali, Peru, Senegal, Sierra Leone, Swaziland, Switzerland, and Zambia. Together with the countries that did so in the years before, they are indicated with a **black dot** in this map. **Three more countries ratified by February 7, 2017,** namely Costa Rica, Liechtenstein and Togo.

As of February 8, only **twelve additional country ratifications are needed** to ensure the convention's early entry into force which **requires a total of 50 country ratifications**. In view of this progress it is expected that the **First Conference of the Parties** will be

convened in Geneva during September 2017.

To address the mercury issue successfully, the Interim Secretariat and UN Environment are working closely with the **Global Mercury Partnership, the United Nations Industrial Development Organization, the United Nations Institute for Training and Research, the World Health Organization, and the Global Environment Facility**.

The Global Mercury Partnership facilitates multi-sectoral and multi-stakeholder action to achieve specific results with direct benefits to human health and the environment. UN Environment, UNDP and UNIDO, in partnership with the **Global Environmental Facility**, have been providing support to countries to carry out **Minamata Initial Assessments.** These help countries in need to build their capacity and move successfully through the convention's ratification process. In the map they are indicated with a **red dot**. By December 2016, there were **54 countries** doing such assessments with support from UN Environment, which is a slight increase compared to the situation one year ago. The new countries are **Eritrea and Lao**.

The first session of the **United Nations Environment Assembly in June 2014** adopted the terms of reference for the **Special Programme to support national institutional strengthening** for the implementation of the Basel, Rotterdam and Stockholm Conventions, the Minamata Convention, and the Strategic Approach to International Chemicals Management.

A **voluntary trust fund** was established to support the implementation of the Special Programme. In October 2016, the **Executive Board** of the Special Programme, the **decision-making** body, approved a total of **seven projects** during its first and pilot round of applications, **amounting to 1.75 million US dollars**. The Board took into consideration factors such as **regional balance** and special needs of **least-developed countries, and small island developing states**. The first series of selected projects will be carried out in: Argentina, Benin, the Dominican Republic, Iraq, Kyrgyz Republic, Tanzania and Ukraine. The Board also agreed that a **second round of applications** would take place in February 2017, while the **third Board meeting** would be scheduled for October 2017.

By December 2016, **pledges and contributions** to the Special Programme's Trust Fund and the Secretariat had reached a **total of 16 million US dollars**.

Lead exposure is estimated to account for 0.6 percent of the **global burden of disease**, with the highest burden in developing regions. According to the **World Health Organization**, childhood exposure to this metal is estimated to contribute annually to about 600,000 new cases of children with intellectual disabilities. Researchers' estimates of reduced cognitive potentials (or loss of Intellectual Quotient points) due to preventable childhood lead-exposure equal 98.2 million points in Africa, 283.6 million in Asia, and 24.4 million in Latin America and the Caribbean. This translates into **economic losses of more than 900 billion US dollars** around the globe (137 billion in Africa, 142 billion in Latin America, and 700 billion in Asia).

Today the main focus of UN Environment's work with partners on **phasing out lead**, concentrates on **banning lead paint**. Fortunately, **during 2016 some seven additional countries were reported as countries that had** adopted policies, to put in place, lead paint controls with **support of UN Environment and the World Health Organization**, through the **Lead Paint Alliance**. This brings the global number of countries that have reportedly put in place legal and regulatory frameworks to **66 countries**.

Those **seven countries**, that in 2016 were recorded as having reported the adoption of policies on lead-paint controls, with UN Environment support, are: Armenia, Iceland, Kyrgyzstan, Republic of Korea, Thailand, Trinidad and Tobago, and Zimbabwe.

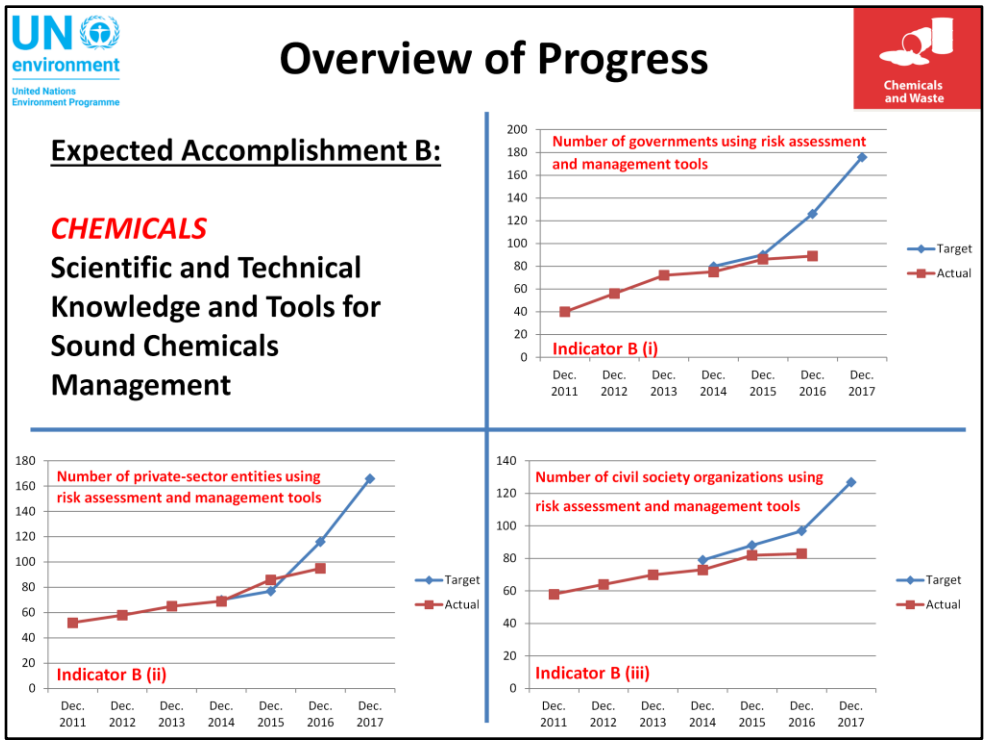
This increase in the number of **countries reporting the adoption of policies** for the

sound management of chemicals and waste, related to the emerging issues of the Strategic Approach to International Chemicals Management, has resulted in **meeting the organization's target unit of measure set for December 2016**.

At the same time, a **private company in the United States** (PPG Industries) and global supplier of paints, developed a **phase-out plan for lead in paint** by 2020. Other **paint manufacturers** like Davies Paints Philippines, and Pacific Paint Boysen Philippines, both obtained a **Lead-Safe Paint Certification**.

To further **raise awareness** among stakeholders about the urgency to phase out lead in paint, UN Environment **launched the #BanLeadPaint campaign** during the **International Lead Poisoning Prevention Week of Action** in October 2016. The campaign reached over **1,200,000 users on social media** and resulted in almost **6,000 tweets posted on Twitter** while **campaign videos were viewed over 50,000 times**. (http://www.who.int/ipcs/assessment/public_health/lead/en/)

At the same time, UN Environment is **increasing its efforts to address the issue** of unsound management of **Used Lead-Acid Batteries** in developing countries, as requested in last year's UN Environment Assembly's resolution on chemicals and waste. In this regard, a technical meeting on used lead-acid batteries was held in **Dakar in December 2016**.



This slide provides insight into the **results trends for Expected Accomplishment B**, covering the past five years. You see **results** obtained since 2011, shown in **red dots**, and **targets** set for each year since 2014 shown as **blue dots**.

Indicator B-one in the **upper right corner** shows the **number of governments using risk assessment and management tools provided by UN Environment**. This includes, for instance, governments addressing priority chemical issues, towards objectives of the **Strategic Approach to International Chemicals Management.** Examples include **country updates of national implementation plans** for the management of **persistent organic pollutants.**

In the **lower left corner**, **Indicator B-two** shows the **number of private-sector entities using risk assessment and management tools.** This includes **businesses that have phased out mercury** in their processes and products, using information provided by UN Environment.

Indicator B-three in the **lower right corner** shows the **number of civil society organizations using risk assessment and management tools.** This includes **organizations** that have **embraced certification standards for products**, ensuring no mercury, lead or cadmium is used.

You can see, that **all three trends show results, that amount over time in a linear**

fashion, as expressed by the connected red dots. At the same time, the **targets** set for 2016 and 2017 demonstrate, however, that an **exponential increase** over time is being **expected**. The reality seems to be different, however. **Increments over time occur more in a gradual and linear fashion**.

Further **upscaling of the work through partnerships with the private sector and other stakeholders**, ensuring uptake and use of the produced **scientific and technical knowledge and tools,** for the sound management of chemicals, **going forward, may get us closer to the set targets.**

The first **results** under **Expected Accomplishment B** show **national and local governments that have addressed priority chemical issues**.

Results were achieved in close collaboration with the **Basel, Rotterdam and Stockholm conventions' Secretariat** and the Regional Centers under these conventions. In total, **three national and local governments** reported that they addressed priority chemical issues, through the use of our **risk assessment and management tools**.

In this regard, **Bosnia and Herzegovina** developed an inventory of organic chemicals using our inventory guidance. **Yemen** updated its national implementation plan on persistent organic pollutants, using our tools and guidance, while the **Government of Sao Paulo** in Brazil, adopted a policy on mercury-free medical devices.

Under this Accomplishment, the second edition of the **Global Chemicals Outlook** is being prepared. It will address **progress towards the 2020 goal of the Johannesburg implementation plan** of the World Summit on Sustainable Development held in 2002. It will assess issues with **emerging evidence of risk to human health and the environment** and develop **options for action** to implement the 2030 Agenda.

Furthermore, the **illustrative picture** in the slide shows the monitoring of Persistent Organic Pollutants in air samples in Jamaica.

A total of **six private companies** reported in 2016 the **closure of their chlor-alkali plants** that use **mercury**.

The chlor-alkali technology is an **industrial process** that produces **chlorine and caustic soda**. It makes use of mercury to make these chemical commodities. Phase out of those mercury technologies is urgently needed.

The six companies applied the **guidance produced by the World Chlorine Council** under the **UN Environment-led Global Mercury Partnership**. These **game-changing companies**, that have boldly decided to reduce mercury hazards and risks for humans and the environment are located in **India, Malaysia, Poland, Romania and Spain.**

The six companies are: Atul Ltd. Valsad (India), Hindustan Paper Corporation Ltd. (India), Oltchim S.A. Ramnicu Vlacea (Romania), PCC Rokita S.A. Brzeg (Poland), PPChemicals (Malaysia), and Química del Cinca S.A. (Spain).

During the **2016 Summer Olympics in Rio**, **certified gold** was used in the production of **new Olympic Laurels**. These new trophies consisted of a laurel wreath and Olympic Rings made of **Fairmined Gold** received from **responsible artisanal and small-scale mining** organizations in **Colombia and Peru**.

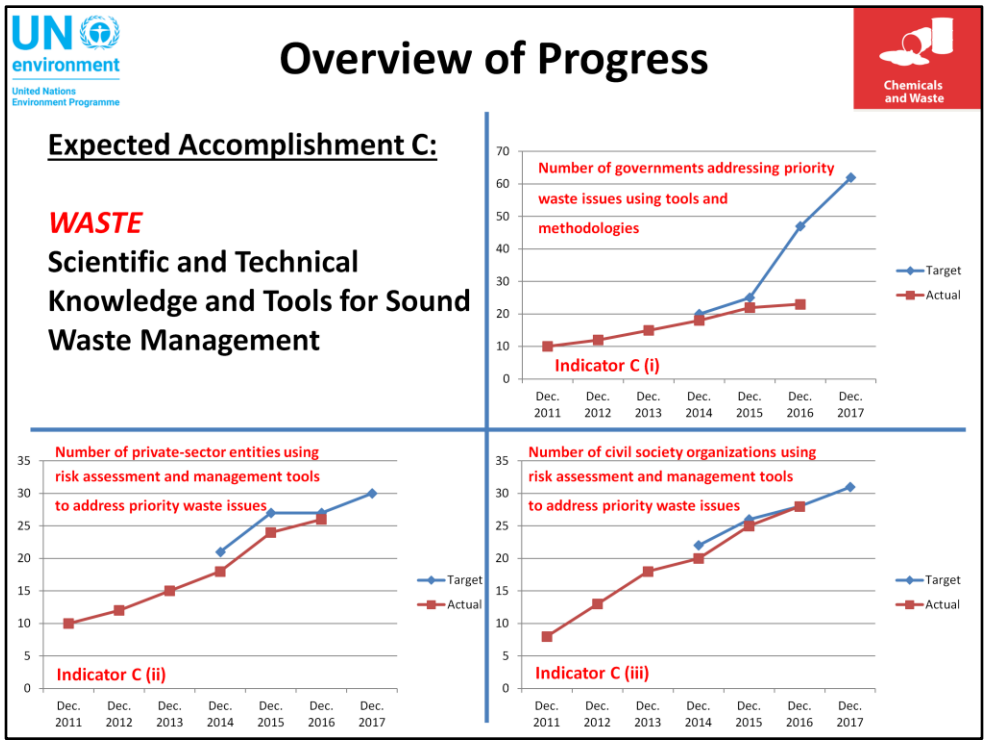
Both the **Global Mercury Partnership** and the **Minamata Convention on Mercury** encourage the use of **market-based certification mechanisms** like **Fairmined** as a way to **foster reductions in mercury use** in artisanal gold mining, and enhance **miner livelihoods**.

The **Alliance for Responsible Mining**, which administers the Fairmined certification, is an active member of **UN Environment's Global Mercury Partnership**.

It is expected that many other stakeholders will soon follow this **example set by the International Olympic Committee**, helping **poor mining communities** and increasing the **health and prosperity of women, men and children** in mining areas around the world, as well as reducing mercury pollution globally.

The recently approved **Global Environment Facility's Programme on Global Opportunities for Long-term Development or GOLD**, which will be led by UN Environment, with further promote market-based mechanisms, and innovative financing solutions, to help artisanal miners eliminate mercury use, while providing a

vital income to people in poor rural areas.



This slide provides insight into the **results trends for Expected Accomplishment C on Waste**, for the past five years. Again, you see **results** obtained since 2011, shown in **red dots**, and **targets** shown as **blue dots**.

Indicator B-one in the **upper right corner** shows the **number of governments using risk assessment and management tools for sound waste management**. This includes, for instance, governments addressing priority waste issues, including obligations under **Multilateral Environmental Agreements like the Basel Convention.** An example includes the development of a **national solid waste management strategy**.

In the **lower left corner**, **Indicator C-two** shows the **number of private-sector entities using waste management risk assessment and management tools.** This includes **businesses that have developed and implemented best practices to prevent and manage industry waste soundly.**

Indicator C-three in the **lower right corner** shows the number of **number of civil society organizations using waste management risk assessment and management tools.** This includes **organizations** that have **embraced holistic waste management approaches, such as universities or non-governmental organizations.**

You will note that **results for Indicator C-three are on target**, while results **for C-two are one point off target**. **Indicator C-one**, however, was **expected to raise**

exponentially as of December 2015, but that has not happened. Progress is **slow and linear**. It appears that **we need to upscale our work with national and local governments**, to ensure they increasingly **take up** our tools and guidance, to inform and modernize their waste management strategies.

In 2015, UN Environment and the **International Solid Waste Association** launched the first **Global Waste Management Outlook** placing a sharper focus on '**waste as a resource**' and the '**circular economy**' paradigm.

One year later, an increasing number of **stakeholders have started to apply the lessons learned** from this top-notch **outlook report** on waste management strategies and action.

For instance, in 2016 the **waste management charity WasteAid in the United Kingdom**, which shares recycling skills for lasting change, has used the recommendations from the Global Waste Management Outlook, **to inform its three-year strategy**.

Similarly, **Imperial College London** has used this outlook report as an **evidence-based call for action** to address the global waste management challenge in the 21st Century, and hence **prevent and manage waste soundly** around the world.

Furthermore, **Nationale Nederlanden Investment Partners**, used this global outlook to **inform their responsible investments in waste management** in Europe, proving a sustainable example for other investors to follow.

Following the success of the first Global Waste Management Outlook, the Secretariat is

updating the report's information continually, with targeted **regional and thematic outlook reports**. The first such a report was the **Waste Management Outlook for Mountain Regions** which was released in December 2016.

One year after a **disastrous earthquake** destroyed large parts of **Nepal**, in 2016, UN Environment supported the **government** of this country by **co-developing a comprehensive waste management strategy,** necessary to **manage almost 4 million tons of earthquake debris**.

The strategy was part of a **sustainable post-disaster recovery process,** and addressed **actions required both at national and sub-national levels**.

The Nepali government was able to **apply best global practices** on managing waste, including **hazardous material** with UN Environment guidance, and identify possibilities to outline a significant **sustainable reconstruction effort**.

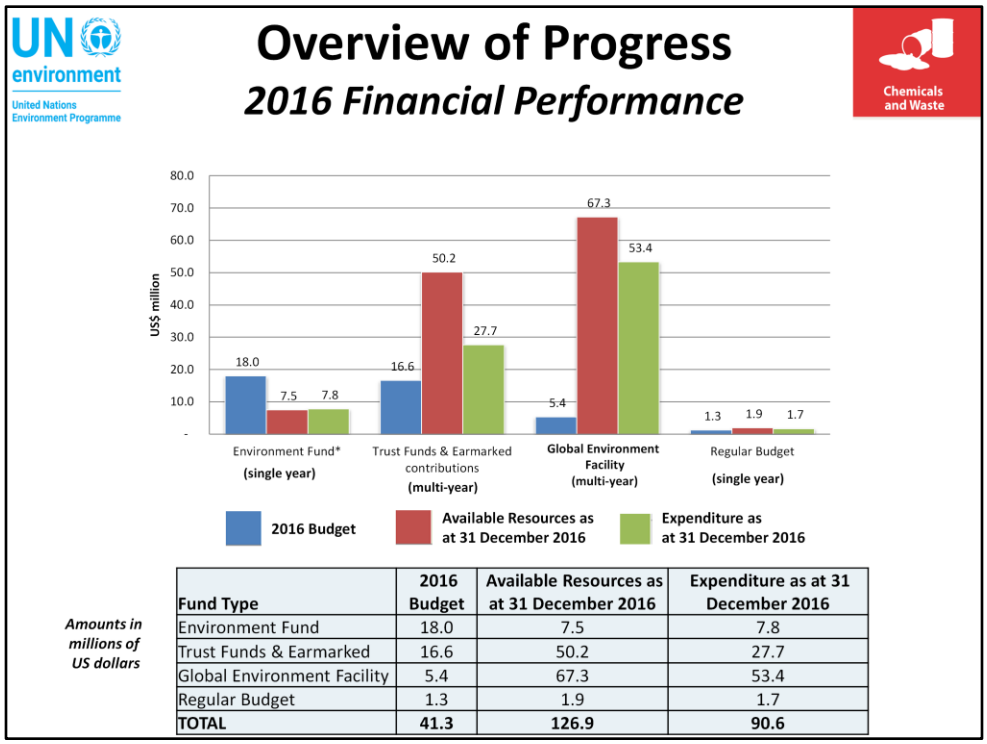
With UN Environment's support, this has allowed the **promotion of a green, sustainable and resource-efficient process** to rebuild affected areas, thus enhancing **environmental resilience** of the Nepali society and its ecosystems.

Globally there is an increasing need for **education and training in pollution prevention** and **sustainable waste management**.

With the aim to train and educate top professionals (engineers and non-engineers), working in the waste management industry, in 2016, the **Griffith University in Australia** integrated UN Environment's waste management curriculum materials, into its education and training programmes. In this way, this university **joined other universities in adopting modern waste management approaches in curricula**.

This result builds upon the **academic consortium** that UN Environment and partners established for the elaboration of a **waste management curriculum**. By integrating **top-notch sustainable waste management and waste minimization approaches**, professionals from around the world attending these universities are now being taught to address existing waste generation problems in a **more holistic manner**, embracing concepts of the **circular economy**. At the same time, they are being prepared to face future challenges in waste management in a successful and **more impactful manner**.

It is planned to further **extend this approach beyond the Asia – Pacific region towards other developing countries in Africa, Latin America, and the Caribbean. Dissemination** of this work is happening **through a global university network integrating numerous universities worldwide**.



Amounts in millions of US dollars

Fund Type	2016 Budget	Available Resources as at 31 December 2016	Expenditure as at 31 December 2016
Environment Fund	18.0	7.5	7.8
Trust Funds & Earmarked	16.6	50.2	27.7
Global Environment Facility	5.4	67.3	53.4
Regular Budget	1.3	1.9	1.7
TOTAL	**41.3**	**126.9**	**90.6**

Budget performance shows a total amount of **126.9 million US dollars** available as at 31 December 2016 while the **planned budget for 2016 was 41.3 million US dollars**.

Expenditure on the other hand was **90.6 million US dollars**, which is around **70% of the available resources**. Most funds came from the **Global Environment Facility**, that is a total of **67 million US dollars**.

Eighty percent of the Global Environment Facility money was **spent** by December 2016. It has to be stated, however, that **most Global Environment Facility funds are for specific activities**, not for staff costs. Therefore, although there are funds to undertake activities, **not necessarily all human capacity is in place** to do so.

Secondly, the **Global Environment Facility focuses on a few specific areas such as persistent organic pollutions and mercury phase out**. Other key fields of work such as **endocrine disruptors, chemicals in products, partnership coordination, and global, regional and thematic assessments**, not necessarily count on sufficient funding to meet all targeted results. **Fundraising is continually** happening to addresses the funding challenges. To do so, a **resource mobilization strategy** was developed and documented last year. Since then, fundraising efforts have **increased significantly**.

Challenges and Opportunities

- **Creating linkages and synergies**
  - Conferences of the Parties of the Basel, Rotterdam, Stockholm Conventions
  - Minamata First Conference of the Parties
  - Pollution theme, UN Environment Assembly 3
  - Life cycle and circular economy
  - Sustainable chemistry
- **Scaling up partnerships**
  - Beyond 2020 process – Strategic Approach
  - Chemicals industry
  - Consumer organizations
- **Political commitment and support from Member States**

There are **many challenges** that we are facing that we can **turn into opportunities** to promote the sound management of chemicals and waste.

In 2017 we should in particular **take advantage** of the various **Conferences of the Parties of the key conventions**, taking place in April-May and in September.

Furthermore, the **theme of Pollution** has been selected as the overarching theme of the **Third Session of the UN Environment Assembly in December**.

Next to these key events this year, we have an opportunity to **build upon the momentum that the life cycle approach and circular economy are facing**. More and more, the world embraces a **holistic approach** to the management of chemicals and waste.

Also, **sustainable chemistry** appears a major opportunity for us, to further **engage with the chemicals industry**. **Consumer organizations** are also more and more interested, and by engaging with them, we will be able to better **reach out to citizens and help them become aware** of the risks and hazard associated with unsound management.

At the same time, the **Strategic Approach to International Chemicals Management** is leading the **inter-sessional process towards 2020 and beyond.** This will be an opportunity to **look beyond the horizon** and develop the chemicals and waste **agenda**

towards 2030.

Ultimately, **renewal of the political commitment and support from Member States** will be key to achieve the goals and targets that we have set together, to ensure that we achieve the **2030 vision** that we mentioned in the beginning of this presentation: **a successful transition to the sound management of chemicals and waste for people, planet and prosperity.**

For further information please contact Madam Ligia Noronha or Mister Maarten Kappelle, for any further information you need.

Thank you very much for your kind attention!