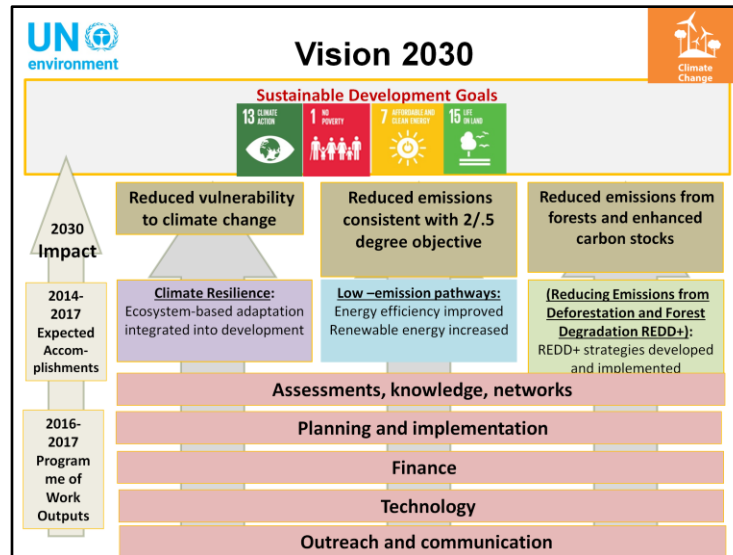




Supporting countries to move towards climate-resilient and low emission pathways

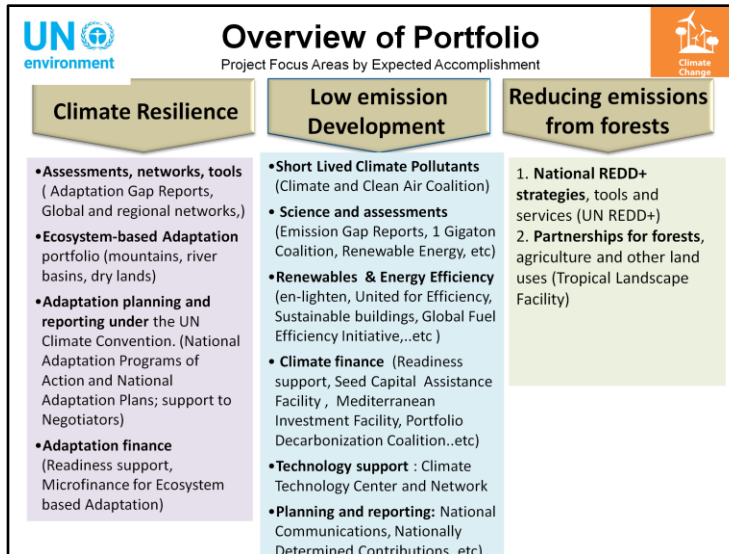
1. Overview of the portfolio
2. Results targeted
3. Overview of progress, including UN Environment Assembly resolution on Paris Agreement
4. Challenges and Opportunities
5. Case study



The climate change programme’s Theory of Change outlines the support to countries through the combination of four areas of focused intervention:

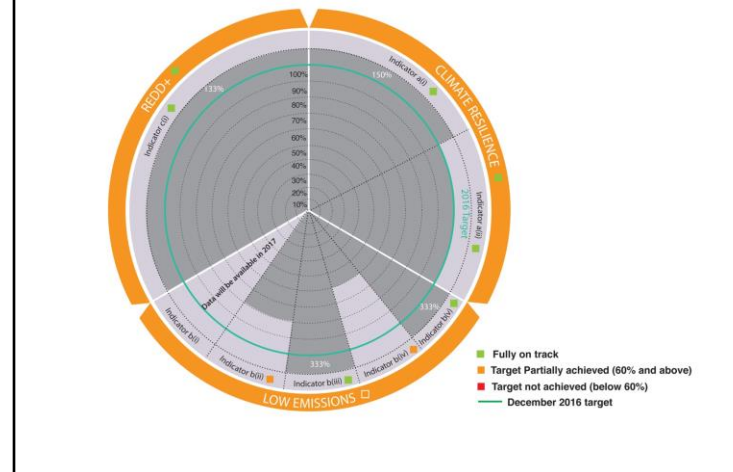
- Improved understanding of climate change through science and assessments
- Providing policy advice for low emission and resilient development
- Catalyzing public and private finance for climate change .
- Stimulating the uptake of low GHG, resilient and climate friendly technologies

According to the Medium Term Strategy 2014/17, UN Environment’s climate change programme objective is **“to strengthen the ability of countries to move towards climate-resilient and low emission pathways for sustainable development and human well-being”**. UN Environment provides support to countries and institutions to meet the challenges of climate change by promoting ecosystem-based approaches to adaptation, up-scaling the use of and facilitating access to financing for clean and renewable energy and technologies, and capitalizing on the opportunities of reducing emissions from deforestation and forest degradation.



This slide provides an overview, in summarized form, of the initiatives and projects which contribute to the 3 expected accomplishments of the climate change programme: Resilience, Low Emission Development and REDD+.

We met our targets with the exception of 2 targets



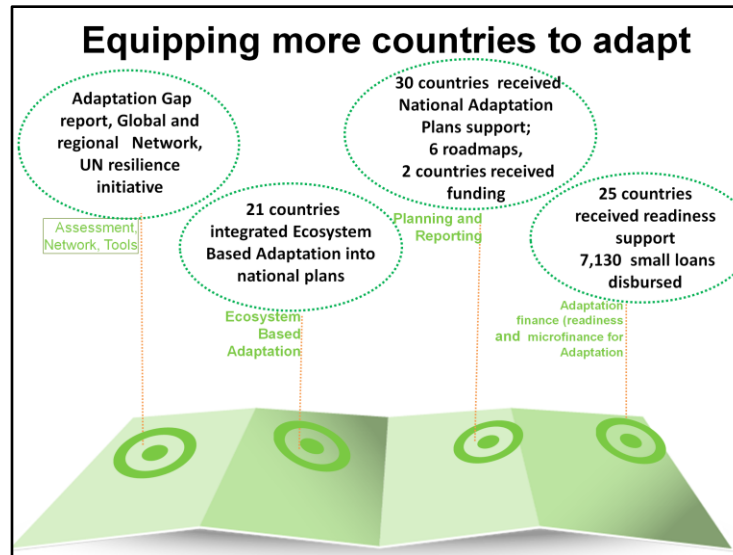
The performance of the program is measured against 8 indicators with 2 linked to Climate Resilience (Expected Accomplishment A), 5 linked to low Emission pathways (Expected Accomplishment B) and 1 linked to Reducing Emissions from Deforestation and Forest Degradation (Expected Accomplishment C). Six out of eight out of 8 indicators are new for this biennium.

In 2016, we met and even exceeded some of our targets with the exception of 2 targets, which have progressed solidly but not to the extent we had targeted.

The global data set for Indicator EA(B) (i) are produced every year in May/ June for the year before, hence the data for 2016 will be produced in June 2017 from Renewable Energy Policy Network for the 21st Century (REN21). However, we have shown the progress made in 2015, based on the 2016 report of the network.

The diagram gives an overview of progress against 8 indicators, respective to December 2016 targets.

We will review the progress against these indicators in detail and provide you also with some examples of the results that have been achieved.



UN Environment supports developing countries to shift to climate resilient development pathways. It does so by providing guidance on the development of appropriate policy frameworks, undertaking analysis to inform choices, promoting knowledge exchange on adaptation and supporting implementation of adaptation actions, through the global or regional. There is an emphasis on using ecosystem-based approaches to adaptation.

UN Environment’s work on Adaptation is measured against two indicators:

- (i) Increased number and percentage of countries implementing concrete ecosystem-based and other supporting site-based adaptation initiatives, with the assistance of UN Environment*
- (ii) Increased number and percentage of countries that have progressed in integrating ecosystem-based and other adaptation approaches into sectoral and national development strategies, with the assistance of UN Environment*

On indicator (i) :

UN Environment enabled 20 countries to implement Ecosystem based Adaptation and other approaches during 2014-15. UN Environment target for 2016-17 is to enable 4 more countries to do so. During 2016 UN Environment enabled 3 more countries (Albania, Angola and Antigua & Barbuda) to start the implementation of including from

Green Climate Fund resources. This brings the cumulative number to **45 countries** that are implementing Ecosystem based Adaptation and other adaptation measures as at December 2016.

Countries are increasingly recognizing Ecosystem based Adaptation as an effective approach, with some governments scaling up their ongoing ecosystem-based adaptation work and incorporating ecosystems in their Nationally Determined Contributions as part of their vision for adaptation. In 2016, three countries (The Gambia, Nepal and Rwanda) successfully scaled up their ecosystem-based adaptation work with additional resources, including from the Green Climate Fund. Five countries (Bangladesh, Myanmar, Sudan, Comoros 2 and Tanzania) secured LDCF funding and are about to start the implementation of adaptation interventions.

On indicator (ii):

As of December 2015, 19 countries (Afghanistan, Bangladesh, Bhutan, Cambodia, Comoros, Djibouti, Gambia, Laos PDR, Malawi, Maldives, Mozambique, Myanmar, Nepal, Rwanda, Tanzania, Viet Nam, Peru, Sudan and Zambia) had progressed with integrating ecosystem-based and other adaptation approaches into national plans. In 2016, we enabled 2 more countries (Lesotho and Uganda) to integrate ecosystem-based and other adaptation approaches into national plans, bringing the cumulative total to **21 countries**. This means that our 2016 target for this indicator has been met.

Other work streams:

National Adaptation Plan (NAP) support: 30 countries have received support through a Global Support Program implemented jointly with United Nations Development Program; Out of 30 countries, 6 countries (Bangladesh, Cambodia, Democratic Republic of Congo, Gambia, Peru, Uruguay) have developed National Adaptation Plans roadmaps. 96 countries have received training on the National Adaptation Plans. 2 countries (Rwanda and Nepal) have received funding for the formulation of the National Adaptation Plan including from the Green Climate Fund.

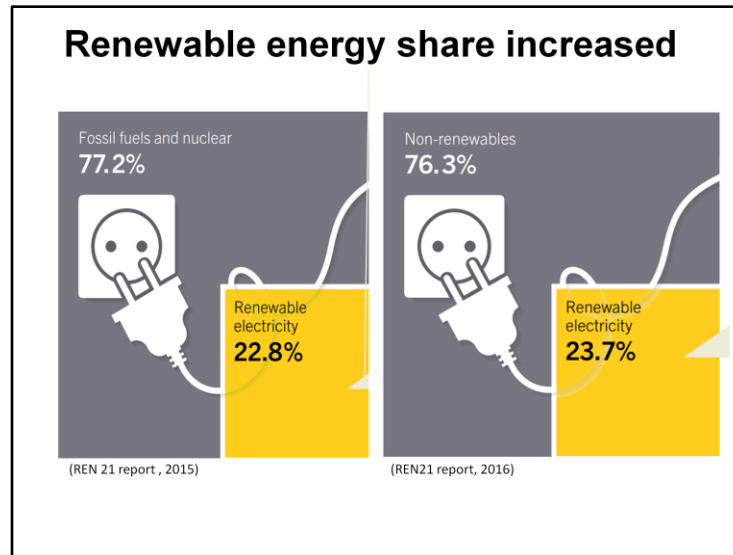
Assessments, networks: include Adaptation Finance Gap Report, dissemination and promotion of knowledge through global and regional networks

Adaptation finance: UN Environment supported 10 countries on accreditation progress to the Adaption Fund , and 15 countries received readiness support to the Green Climate Fund. 7, 130 small loans , which translates into nearly US\$9.1 million of private funds benefitting more than 7,000 farmers were disbursed in 2016 in Peru and Columbia.

21 countries have integrated Ecosystem-based Adaptation into national plans



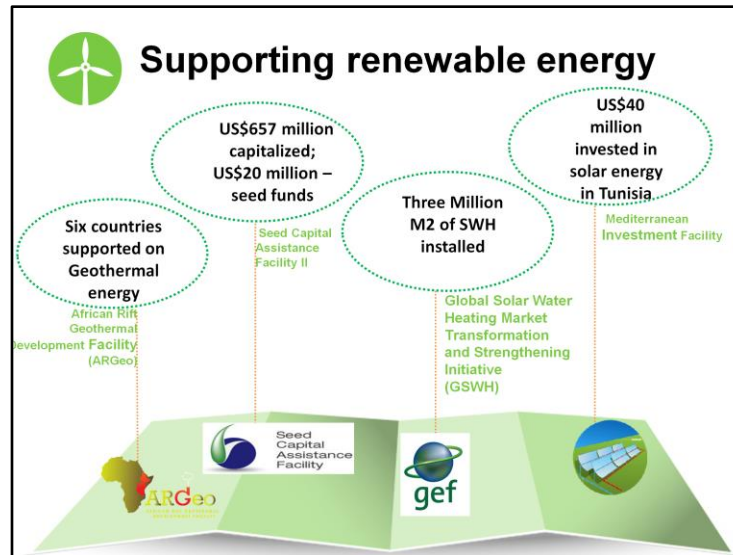
This map shows 21 countries (**Afghanistan, Bangladesh, Bhutan, Cambodia, Comoros, Djibouti, Gambia, Laos PDR, Malawi, Maldives, Mozambique, Myanmar, Nepal, Rwanda, Tanzania, Viet Nam, Peru, Sudan, Zambia, Lesotho and Uganda**) that have progressed in integrating ecosystem-based and other adaptation approaches into sectoral and national development strategies, with the assistance of UN Environment.



Our adaptation work is complemented by our work in supporting low-emission growth. This work focuses on increasing the use of renewables and improving energy efficiency by providing guidance on policy, technology and access to finance.

Although many of the initiatives announced in Paris including through National Determined Contributions did not start to affect renewable markets in 2015, there already were signs that a global energy transition is under way. The 2016 REN21 report said that estimated renewable energy share of global electricity production increased with 0.9% from end of 2014 (22.8%) to end of 2015 (23.7%).

The next slide will provide an overview of UN Environment portfolio on renewable energy which has contributed to the global picture of renewable energy



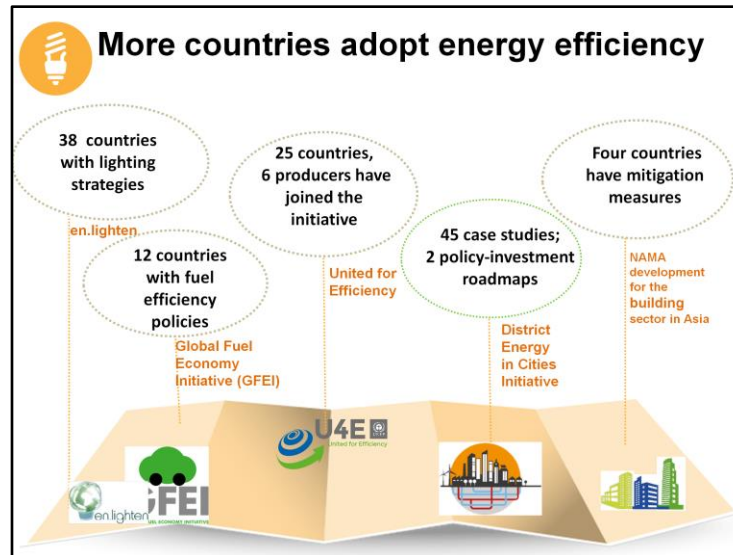
UN Environment supports the rapid uptake of renewables through a number of projects including but not limited to :

African Rift Geothermal Development Facility (ARGeo): With resources from Global Environment Facility , 6 East African countries (**Eritrea, Ethiopia, Kenya, Rwanda, Tanzania and Uganda**) are making progress with the uptake of geothermal exploration and development solutions as well as relevant institution support. Two surface explorations: Ngozi (Tanzania) and Kibiro (Uganda) were successfully completed

Seed Capital Assistance Facility (SCAF): In 2016, our Seed Capital Assistance Facility with a **total capitalization of US\$657 million, has used US\$20 million** of seed capital invested for eight renewable energy projects in **Cambodia, Indonesia, Kenya, Nigeria, Rwanda and Viet Nam.**

Global Solar Water Heating: In collaboration with UNDP, UN Environment helped 5 countries (**Albania, Chile, Lebanon and India, Mexico**) transform the market for Solar Water Heating . The project which closed in March 2016, enabled the installation of an cumulative 3 million square meters of solar panels Solar Water Heating panels in five countries and removed barriers for the Solar Water Heating transformation as well as created a Global Knowledge Management and Network for Solar Water Heating

Mediterranean Investment Initiative (MIF): In collaboration with Italian Ministry of Environment addition, we mobilized US\$40 million of investments on solar energy in **Tunisia** through the Mediterranean Investment Facility.



Our Emission Gap Report for 2016 highlights the significant potential of energy efficiency in achieving the long-term objective of the Paris Agreement, to limit global warming to well below 2°C. Our portfolio on low-emission growth includes work on **energy efficiency**, including lighting, appliances, transport, and district energy. Through this work, which includes multi-stakeholder partnerships, we are working toward Sustainable Development Goal 7.3, to double the global rate of improvement in energy efficiency by 2030. We contribute to the energy efficiency goal of the Sustainable Energy for All Initiative through its global energy efficiency accelerator platform. On this initiative, we co-lead work on **energy-efficient appliances and equipment, transport and district energy**.

Our work on energy efficiency is measured against the following indicator:

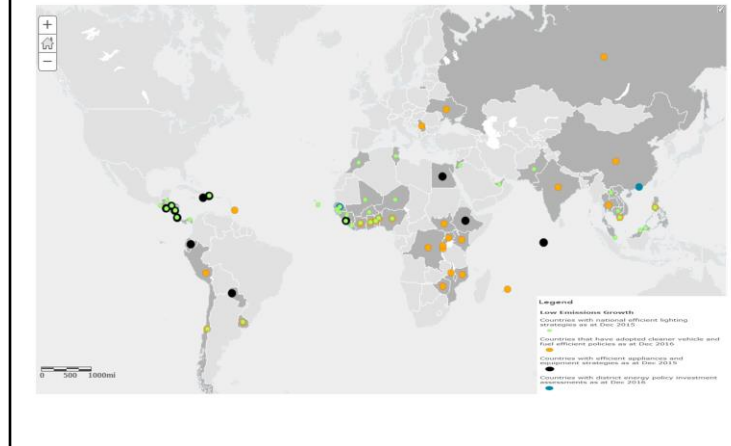
Indicator: ii): Increased percentage of countries meeting energy efficiency standards in specific sectors, with support.

Our target for 2016 was to support five new countries to meet energy-efficiency standards in specific sectors. We are close to meeting this target by supporting pilot cities in **Bosnia and Herzegovina and Serbia** to develop district energy policy-investment roadmaps. The pilot cities are Belgrade in Serbia and Banja Luka in Bosnia and Herzegovina. This work has unlocked significant investment from development banks operating in the region. In 2016, with our

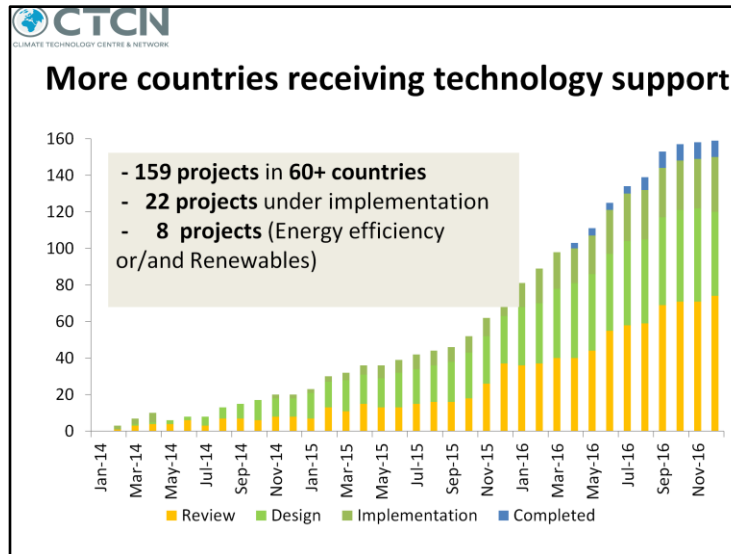
support, Russia implemented 10 ppm diesel fuel standards and Philippines implemented Euro 4/IV vehicle emission standards.

Progress is underway: Peru has developed National Efficient Lighting Strategy (NELS) and is in the process of adopting it. Such strategies are under development in Marrakech, Chile, Bolivia and Pakistan. Twelve countries and 6 producers have joined the U4E and have started working on deployment of energy efficient appliances. In India, 5 pilot cities (Coimbatore, Pune, Rajkot, Bhopal and Thane) district energy policy-investment roadmaps progressing well following rapid assessments undertaken for five cities. Nationally Appropriate Mitigation Actions (NAMAs) for building sector is under development in four countries (Indonesia, The Philippines, Thailand, Viet Nam)

More countries adopt energy efficiency standards



This map shows the countries that have adopted energy efficiency standards as at December 2016.



UN Environment 's work on low emission growth, includes work on transfer of climate change technologies.

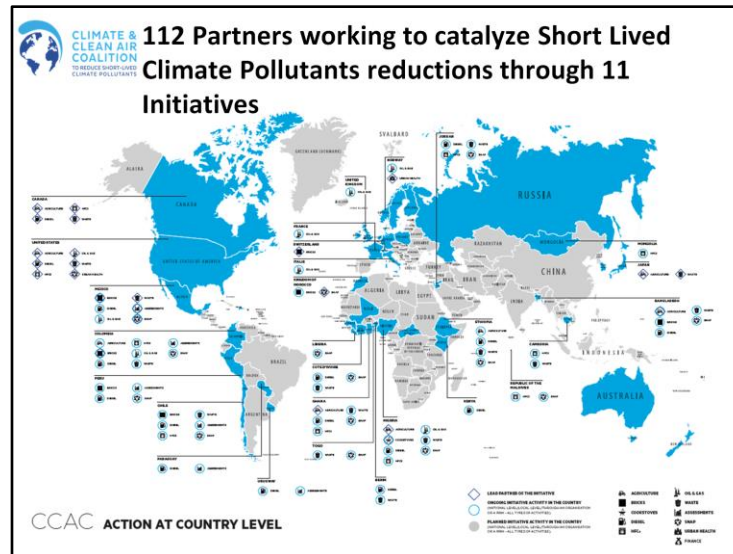
Recognizing UN Environment 's experience, expertise and leadership in the areas of climate change and clean technologies, UN Environment was selected to co-host the Climate Technology Centre and Network (CTCN), the operational arm of the Technology Mechanism of the UN Framework Convention on Climate Change. Supported by 11 partner institutions, the center promotes the accelerated development and transfer of climate technologies at the request of developing countries for low-carbon and climate-resilient development. The Centre facilitates a network of national, regional, sectoral and international technology centres, organizations and private-sector entities

UN Environment's work on the technology support is measured against the following indicator:

Indicator: iii): "Increased number of programmes and projects on the transfer of advanced technologies in the area of renewable energy or energy efficiency implemented by countries, with the assistance of UN Environment "

Our target for 2016 was to support the implementation of **seven initiatives** on the transfer of advanced technologies

in renewable energy or energy efficiency . UN Environment exceeded this target: Out of 22 countries assisted in 2016 in the process of transferring advanced technologies, **eight countries**, (Albania, Algeria, Bhutan, Bosnia and Herzegovina, Cote d'Ivoire, Iran, Senegal and Uganda) got support in the implementation of renewable energy and/ or energy efficiency projects, which include solar energy technology in Algeria, central heating technology in Bosnia, heat and power technology in Iran, energy efficiency in industry sector in Senegal.



In an effort to complement and supplement global action to reduce carbon dioxide, the UN Environment -hosted **Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC)** provides an opportunity for quick gains through reducing Short-Lived Climate Pollutants. Scientific evidence indicates that action to reduce SLCPs (including methane, black carbon and hydrofluorocarbons), could slow down the warming expected by 2050 by as much as 0.5 °C and provide multiple benefits by improving people’s health, increasing food security, enhancing energy efficiency and alleviating poverty. The coalition , though 11 high-impact initiatives operating in and across various sectors, including brick production, transport, waste management, is working to ensure rapid delivery of climate and clean air benefits. With the Paris Agreement, the urgent need for Short Lived Climate Pollutants reductions is even more compelling. Reaching the goal of “well below 2C ... and pursuing efforts to limit temperature increase to 1.5C...” is only possible if we include actions to reduce black carbon, methane and HFCs.

This slide shows the not only climate benefits, but potential annual benefits for public health and food security from reducing Short Lived Climate Pollutants . CCAC Partners have turned many of these measures into its 7 sector-based initiatives and 4 thematic initiatives aimed at catalyzing action to reduce SLCPs. The Coalition’s Trust Fund gives a kick start to these initiative’s work. Country Partners lead and fund many complementary activities, and also co-fund specific activities. Partners from Development Banks are working at mobilizing funds to countries, and creating

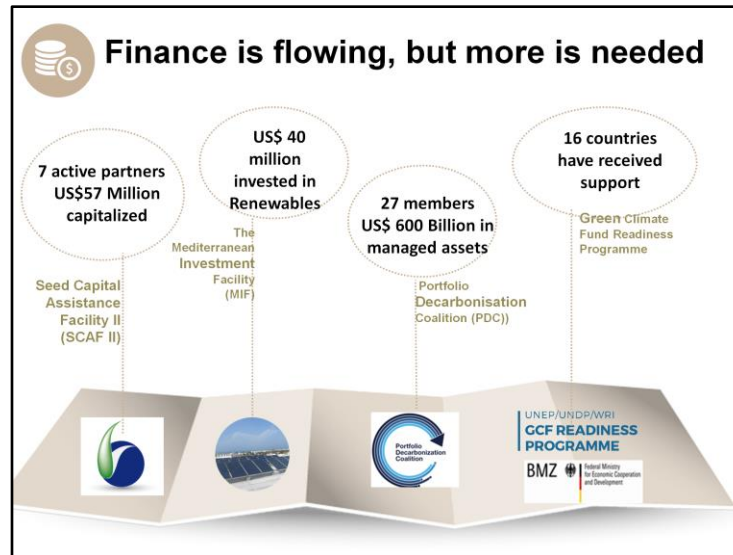
innovative financing facilities. This map shows Coalition's Partners in blue, with in-country activities funded by the Coalition's Trust Fund indicated.



The Climate Clean Air Coalition's work has directly contributed towards the following indicator:

iv) "Increased number of policies implemented and actions taken by countries to decrease greenhouse gas emissions and other climate pollutants as a result of UN Environment-led public-private partnership initiatives"

Our target for 2016 was to **support 10 policies and actions** to reduce greenhouse gas emissions and other climate pollutants. In 2016, through the UN Environment supported coalition (CCAC) **only 5**: In 2016, we supported an agreement on cleaner fuels in **23 regions of Peru and Paraguay and waste management actions in São Paulo in Brazil, Quezon city in Philippines, and Rayong and Bangkok in Thailand**. This comes to a total of five policies or actions implemented



UN Environment portfolio includes projects, programmes and initiatives which drives clean energy investments. This includes:

Seed Capital Assistance Facility: UN Environment brings together first-mover financiers and renewable energy project developers to share some of the additional costs related to early stage investments and mitigate risks. As at Dec 1016, the facility has 7 active partners. The Facility now has a **total capitalization of US\$657 million**, US\$20 million of seed capital invested in eight renewable energy projects in **Cambodia, Indonesia, Kenya, Nigeria, Rwanda and Viet Nam**.

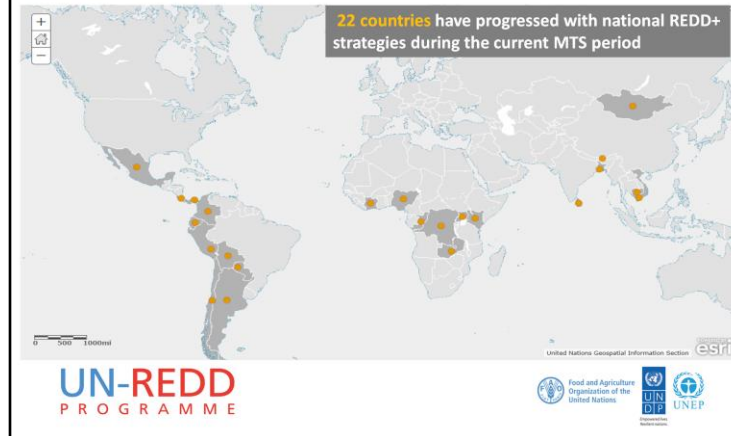
Mediterranean Investment Facility : UN Environment mobilized US\$40 million of investments through the Mediterranean Investment Facility, supported by the Italian Ministry of Environment. We aim to increase the amount of climate finance invested in clean energy.

Portfolio Decarbonization Coalition: Launched at the UN Secretary-General’s Climate Summit in 2014, this initiative encourages **institutional investors to decarbonize their portfolios**. UN Environment’s Financial Initiative provides support to this coalition which has grown from two members in 2014 to 27 in 2016, with commitments to

decarbonize over US\$600 billion in assets under management. To date, all Coalition members have taken substantive action to decarbonize their investment portfolios and 17 members have now adopted formal decarbonization-related objectives and targets. Efforts are underway to expand the coalition to include members from developing countries. However, it is not yet possible to offer a definitive view on how portfolio decarbonization efforts – individually or in aggregate – will affect the real economy.

Green Climate Fund readiness support: Green Climate Fund Readiness Programme is helping 9 countries access the Green Climate Fund (GCF). The program is implemented by UN Environment in collaboration with United Nations Development Programme and World Resource Institute. One of the key activities of the programme is to help develop pipelines of national projects in line with countries' climate change strategies, plans and policies while involving the private sector for GCF submission. UN Environment is also supporting developing countries' access to the Fund through the Green Climate Fund resources 7 countries have received readiness support from UN Environment.

More countries adopt REDD+ strategies



The progress in this focus area is measured against the following indicator: “Number and percentage of countries that have REDD+ strategies that recognize their multiple benefits and the role of the private sector” . THIS IS A NEW INDICATOR, compared to the indicator for the previous biennium

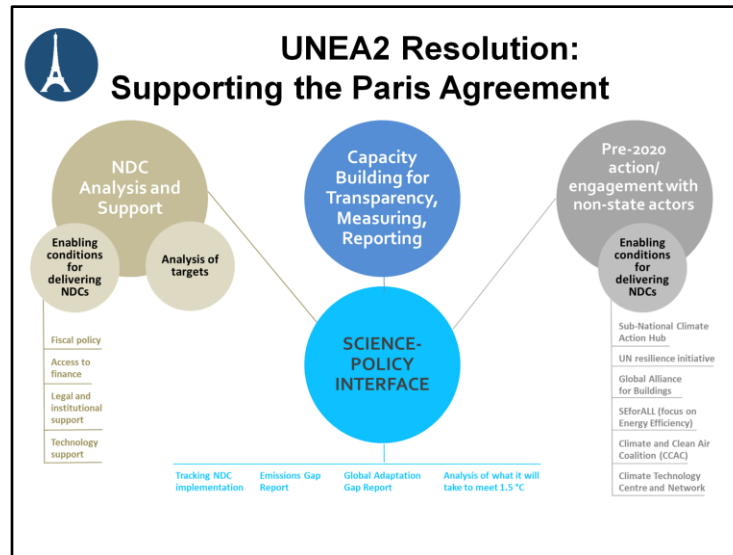
The UN-REDD Programme, jointly implemented by UN Environment, the Food and Agricultural Organization of the UN and the UN Development Programme, is supporting **64 countries** to become “REDD+ ready”, or prepared to welcome relevant investment opportunities. **Twenty-five** of these countries had national programmes. In 2016, **five countries (Chile, Democratic Republic of Congo , Ecuador, Peru and Sri Lanka)** finalized and/or adopted national REDD+ strategies that recognize multiple benefits and/or the role of private sector. **This is in line with the UN Environment target of 3 additional countries having attained this goal by December 2016.** This progress marks an important step in complying with the Climate Change Convention’s Warsaw Framework requirements for allowing countries to receive results-based payments. Since the start of the REDD+ programme, a total of **22 countries have been developing, adopting or implementing national REDD+ strategies.**

Argentina, Bangladesh, Bhutan, Bolivia, Cambodia, Chile, Colombia, Costa Rica, Côte d'Ivoire, Republic of Congo, Ecuador, Kenya, Mexico, Mongolia, Nigeria, Panama, Paraguay, Peru, Sri Lanka, Uganda, Viet Nam and Zambia.

Tropical Landscape Finance Facility



To complement the support to countries to develop and implement national REDD+ strategies, new innovative partnerships for transformative land management have been established. In Indonesia, the Tropical Landscape Finance Facility was established, with UN Environment as Secretariat of the Facility. The World Agroforestry Centre, BNP Paribas and ADM Capital are key partners in the Facility, which will include both a loan and grant window. The Facility will provide long-dated and concessional debt, securing refinancing from a capital finance programme via long-dated Tropical Landscapes Bonds. The Facility seeks to provide the world's first-ever large-scale finance programme for landscape protection and rural livelihoods; its motto "leveraging private finance for public good". The Facility aims to lend in excess of US\$1 billion to commercial projects, with significant positive social and environmental impact in Indonesia. Indonesia has a funding gap in excess of US\$ 20 billion for projects that address climate change mitigation and adaptation through, inter alia, inclusive access to energy, improved smallholder productivity, rural livelihoods and poverty alleviation.



In the resolution on “**Supporting the Paris Agreement**” (2/6), the Assembly asks the UN Environment Executive Director to contribute to the implementation of the pre-2020 global efforts to address climate change. This is to be done by, *inter alia*: strengthening efforts in education, training, public awareness, public participation, public access to information and cooperation. Also by reinforcing and stepping-up UN Environment’s participation in partnership programmes and initiatives, and strengthening collaboration between UN Environment and other relevant stakeholders; and accelerating support to countries for building national readiness capacity to implement the Paris Agreement and to access finance and technology. It also calls for strengthened support for the Intergovernmental Panel on Climate Change and for contributions to global climate change related assessments. This resolution addresses SDG 13 on climate change directly, but is linked to the majority of the goals in that the achievement of sustainable development is severely undermined if climate change is not adequately tackled.

UN Environment has identified a set of post-Paris Cop21 priorities, which are incremental to the existing Programme of Work and are seen as a bridge to the new MTS which include: (i) National Determined Contribution (NDC) analysis and support; (ii) NDC - Capacity Building for Transparency, Measuring and Reporting; (iii) Pre-2020 action; non-state actors; and taking forward the Global Climate Agenda. The implementation of these priorities will be supported by new research, policy and analytical work such as emission and adaptation gap reports, tracking and communicating

NDC implementation through UN Environment LIVE, analysis of what it will take to reach 1.5 °C etc. These priorities will be implemented in partnerships with relevant organizations and institutions are expected to increase

UNEA 2 Resolution: We are making progress

- Key Initiatives/ partnerships:
 - NDC partnership , UN Resilience Initiative, Green Climate Fund, Global Alliance for Buildings, Adaptation Center of Excellence, UN alliance on Climate Change Education, Training and Public Awareness.
- National Determined Contributions support:
 - Analysis, transparency, readiness for implementation
- National Adaptation Plans support
 - 30 countries supported
- Assessments:
 - Gap reports, Global Environmental Outlook -6, Report on 1.5 Degree
- Readiness support to access finance
- Technology transfer and deployment
 - 23 countries are in the implementation phase
- UN strategy on climate change
- Enhance support to education, training and public awareness

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UN Environment continues to support the transition from the formulation to the implementation of National Determined Contributions. The support is focused on the development of their readiness implementation plans and identification of optimal institutional arrangements for coordinating their implementation. Building on the GEF support, UN Environment is also developing a new Implementation Support Programme.

UN Environment and the UNFCCC Secretariat have agreed to work together to provide the necessary support to a group of partner countries to advance the implementation of Paris Agreement. The objective of the collaboration is to transform nationally determined contributions into implementation plans consisting of a portfolio of concrete actions, programmes, and projects which demonstrate the links between climate and development goals. Both agencies have agreed to establish a joint UN Environment and UN Climate Secretariat task team to move from ideas to action starting with the identification of the countries and potential partners.

UN Environment is playing a leading role within the UN's Climate Resilience Initiative . This initiative addresses three key aspects of adaptation: establishing early warning - early action systems; extending climate risk transfer and social protection mechanisms; and strengthening the shift to climate resilient development pathways.

UN Environment has made good progress in supporting countries advance the National Adaptation Plans. 30 countries (LDCs and non-LDCs) have been supported so far with 2 countries having received support from GEF (Rwanda) and GCF (Nepal).

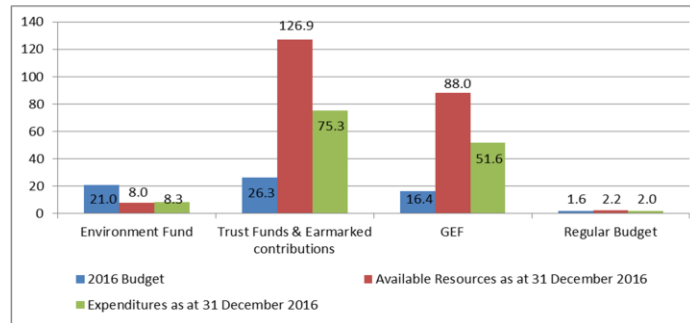
UN Environment is working with UN agencies in drafting a UN Strategic Approach on Climate Change as mandated by the Chief Executives Board.

UN Environment is supporting 15 countries in getting ready to access Green Climate Fund.

To date, out of the total 68 requesting countries, requests for technology support have been completed in 9 countries, the design of technology assistance is ongoing in 27 countries, with 23 countries in implementation phase.

Work is on-going on the design of the Intergovernmental Panel on Climate Change library facility. Substantial support is provided to the 2016 Emissions Gap Assessment 2016; 2016 Adaptation Finance Gap Report, Global Environmental Outlook 6 report and Report on 1.5 – Analysis of what it will take to meet 1.5 Degree.

Main funding sources: Earmarked and Global Environment Facility



*Available resources are unspent balances at the end of 2015 plus the newly released budgets in 2016. Global Environment Facility (GEF) resources include the project budget and agency fee

Overview of Challenges

- Scaling up adaptation.
- Translating technical assistance into bankable projects
- Attracting private sector to invest on adaptation and mitigation
- Insufficient resources and capacity to cope with the current demand:
 - To access climate finance (i.e Green Climate Fund);
 - To transfer and deploy climate change technologies
 - To support the implementation of Nationally Determined Contributions

This slide summarizes the challenges we are facing during the implementation of the climate change portfolio

Opportunities

- Mobilizing and scaling up green investments through:
 - Engagement with private sector
 - Financial institutions
 - Global Environment Facility
 - Green Climate Fund
 - Climate Technology Center and Network
- Integrating resilience into UN Environment portfolio
- Engaging with UN organizations in NDC implementation

This slide summarizes the opportunities we are facing during the implementation of the climate change portfolio

Rehabilitation and upgrade of District Heating in Banja Luka city (Bosnia and Herzegovina)



Separate presentation will follow

Summary of the case study:

Rehabilitation and upgrade of District Heating in Banja Luka city (Bosnia and Herzegovina):

The district heating system in Banja Luka, which relies on the use of expensive Mazut, experiences significant energy loss during transmission and end-use. This causes the city to incur unsustainable debt, while also producing unnecessarily high amounts of greenhouse gas emissions and other forms of air pollution. **UN Environment's Global District Energy in Cities initiative** and the **Climate Technology Centre and Network** have developed a short-term priority investment and operational strategy for enhanced sustainability of the district heating system. As a result, the **European Bank for Reconstruction and Development** has expressed interest to provide an investment package of about **€20 million** for new biomass boilers, network upgrades, and other efficiency measures. The Bank is working closely with UN Environment's Global District Energy in Cities initiative, the Climate Technology Centre and Network, and Banja Luka to develop this opportunity, starting with a feasibility study linked to a 20 MEuro loan investment. The city of Banja Luka now has a strategy for significantly upgrading its district heating system, as well as financing to implement the proposed changes. When completed, modernisation of the district heating system could **reduce fuel consumption by 27%** equal, to approximately **4,500 tonnes of crude oil**. Every year, this would reduce emissions by **18,000 tonnes of carbon dioxide**, hence helping the country to meet its NDC targets and **save the city €1.5 million in**

fuel.

Contact Persons

Programme Lead Director

Ms. Ligia Noronha
Economy Division
UN Environment, Nairobi
Office Tel: + 254 – 2076 25264
Email: Ligia.Noronha@UNEP.org

Programme Coordinator

Ermira Fida
Policy and Programme Division
UN Environment, Nairobi
Office Tel: + 254 – 2076 24150
Email: Ermira.Fida@UNEP.org