Efficient, Clean Cooling Program – update on activities

New Delhi, 12-13 December 2019

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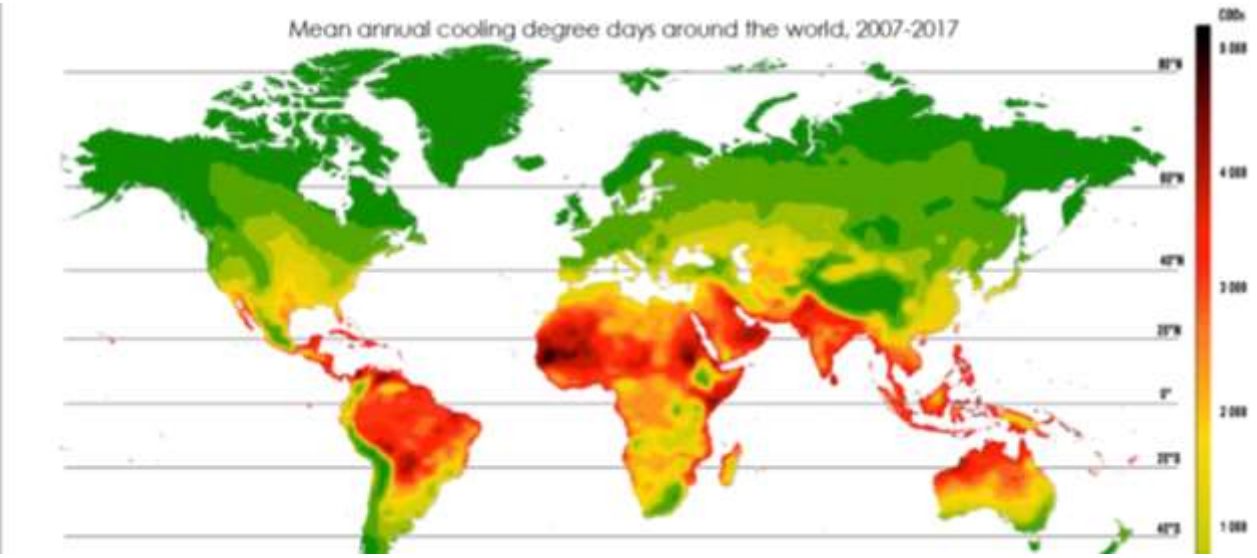
International Workshop on Energy Efficient Cooling

Samira El Khamlichi, The World Bank

WHY COOLING? IT IS CENTRAL TO OUR DEVELOPMENT CHALLENGE

- *WITH BOTH CLIMATE ADAPTATION AND MITIGATION DIMENSIONS*

Cooling is essential for development – for food, homes, workplaces, medicine, institutions, transport



- Heatwaves are one of deadliest natural hazards, affecting disproportionately poor and vulnerable
- 1.1 billion people are at risk from lack of access to cooling.
- 1/3 of food produced annually and 1/4 of vaccines lost due to inadequate cooling
- Urban spaces heating up at twice the global rate
- Cooling: Contribution to SDGs on poverty, hunger, health and well-being, energy, and sustainable cities

Demand for cooling is increasing significantly – with energy and GHG implications

- 19 pieces of cooling equipment (incl. 10 new AC units) added *every second* to 2030
- Global energy demand from AC projected to triple by 2050; pressure on expensive peak demand
- Combining strategies to improve EE and phase-down high GWP refrigerants for cooling has potential to avoid close to 1°C by 2100

PRESS RELEASE | APRIL 24, 2019

New Program to Scale Up Efficient, Clean Cooling in Developing Countries

WASHINGTON, April 24, 2019 – The World Bank announced today a new program to accelerate the uptake of sustainable cooling solutions, including air conditioning, refrigeration and cold chain in developing countries. The program will provide technical assistance to ensure that efficient cooling is included in new World Bank Group investment projects and mobilize further financing.

Globally, demand for cooling is increasing, mainly driven by growing populations, urbanization and rising income levels in developing countries. Further exacerbating the issue, rising temperatures will increase demand for cooling appliances, which not only use large amounts of energy, but also leak refrigerants that contribute to global warming .

By 2050, energy use for cooling is projected to triple. Also by 2050, estimates show that demand for cooling in countries in the tropics and subtropics such as India, China, Brazil, and Indonesia will grow fivefold, which will put pressure on already strained energy systems and hamper efforts to curb climate change.

"Sustainable cooling is a fundamental part of the energy transition. Meeting the growing demand for cooling services without compromising climate change goals

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Efficient, clean cooling program – overview







- **ESMAP Technical Assistance (TA) multi-sector program:**
  - Jointly managed by **ESMAP** and **WB Climate Change Group**
    - Leveraging ESMAP's energy efficiency activities (especially through its Efficient and Sustainable Buildings TA Program and also enabling link with ESMAP work on renewable energy and energy access) and the Bank's long-standing knowledge and expertise on the Montreal Protocol.
  - $3M seed funding from the philanthropic Kigali Cooling Efficiency Program
  - Approach based on ESMAP track record with other programs

Objective	New WBG business line under ESMAP ➢ Design & inclusion of sustainable cooling components in operations ➢ Awareness raising; capacity building; knowledge exchange ➢ Knowledge products ➢ Partnerships, mobilize funding
TA focus	➢ Space cooling (comfort cooling) ➢ Cold chain ➢ Cool Surfaces and mitigation of Urban Heat Island Effects ➢ Mobile cooling

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Efficient, clean cooling program – Update on Activities (1/2)





- **Dedicated cross-sectoral TA funding window**
  - ESMAP issued call for proposals **across GPs/IFC**
  - Working closely with individual task team leaders to develop workable proposals in the context of their relevant operation and in line with goals of the Program
  - To date have been working on 13 proposals amounting to about $3M; two proposals approved for funding to date; two other under consideration for approval
- **Overview of current portfolio/pipeline:**

Energy	improving energy efficiency and lowering GWP in space cooling (Panama, Jordan, Colombia)
Agriculture	improving logistics and inputs of agriculture cold chains to increase cooling efficiency and lower GWP (Mexico, Bangladesh)
Health	improving energy efficiency and lowering GWP in cold storage for health products and cooling for hospitals/health care facilities (Nigeria)
Environment (Fisheries)	improving logistics of fisheries industry cold chains (Africa region)
IFC	working with IFC manufacturing and agriculture clients to improve cooling and cold chain efficiencies/reduce GWPs, develop guidance for introducing sustainable cooling components to relevant IFC operations
Urban	piloting urban design strategies that are meant to reduce demand for cooling in selected cities in China, based on ESMAP's Operations Primer on Cool Cities (to be published in late 2019)

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Efficient, clean cooling program – Update on Activities (2/2)





- **In addition, complementary support through ESMAP's Efficient and Sustainable Buildings program** *(including for countries not eligible for K-CEP funding)* such as:
  - Pakistan – developing national cooling action plan to focus on all sectors of the economy, including an assessment of district cooling potential, and performance standards for cooling equipment (work led by Energy team)
  - India – TA supporting the Bank's India EE Scale-up operation and TA to study options for enhancing EE in cold chain sector, with focus on pack-houses. (work led by Energy team)
  - Bangladesh – TA support covering MEPS and EE labelling, as well as energy and environment rating of buildings (work led by Energy team)
  - Mexico – Technical analysis and design options for Sustainable EE program in social Housing (work led by Urban team)
- **Developing operationally-focused knowledge material:**
  - Primer for Cool Cities – responding to excess heat (jointly with the WB-led Global Platform for Sustainable Cities) – *peer review completed; finalizing document*
  - Primer for Space cooling (air conditioning and buildings) – *expect to submit for peer review in coming weeks.*
- **Mobilization of financing**
  - ESMAP's new business plan (FY21-25)
  - Climate finance

THANK YOU

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