Financing Access to Cooling Solutions

30 April 2020
1. Introduction and Agenda

2. Challenges in Access to Cooling Finance

3. Opportunities in Access to Cooling Finance

4. Recommendations

5. Discussion

6. Questions and Answers (time permitting)
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<th>Time</th>
<th>Agenda</th>
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<tr>
<td>15:00 – 15:15</td>
<td>Presentation of the Knowledge Brief on Financing Access to Cooling Solutions (SEforALL)</td>
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<td>15:15 – 15:45</td>
<td>Panel discussion</td>
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<td></td>
<td>• Alan Miller, Senior Climate Finance Consultant</td>
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<td></td>
<td>• Helen Picot, Head of Access to Cooling, Kigali Cooling Efficiency Program</td>
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<td>• Olivia Coldrey, Lead Finance Specialist, SEforALL</td>
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<td>15:45 – 16:00</td>
<td>Questions and Comments Via Chat (time permitting)</td>
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Globally, food loss and waste account for 8-10% of annual GHG emissions

Only 41% of health care facilities in 78 low- and middle-income countries had reliable energy access

Women in agricultural labor roles often have fewer assets, thus they are disproportionately affected

Globally, 840 million people lack access to electricity necessary to power a lightbulb

Estimates of global productivity losses due to heat as high as US $2 trillion by 2030

Agricultural cold chains are increasingly important to cities (50 and 70% of global food consumption)
ACCESS TO SUSTAINABLE COOLING

Populations identified in Chilling Prospects

RURAL POOR
365 MILLION
- Likely to be subsistence farmers without access to an intact cold chain;
- may lack access to electricity and properly stored vaccines.

URBAN POOR
680 MILLION
- May have some access to electricity, but live in housing of poor quality;
- may have a refrigerator, but food often spoils due to intermittent power.

LOWER-MIDDLE INCOME
2.2 BILLION
- May purchase an affordable thus likely inefficient air conditioner or refrigerator that raises energy consumption and GHG emissions.

MIDDLE INCOME
950 MILLION
- May be able to afford a more efficient air conditioner or minimize its use;
- may move to energy efficient housing and working environments.
COOLING FOR ALL NEEDS ASSESSMENT

A tool to measure cooling needs across three critical areas:

**Human comfort and safety**
To what extent does the population have access to the space and mobility cooling that is adequate to maintain safety and productivity, at home, in education and in the work environment and while moving between each?

**Food, nutrition security and agriculture**
To what extent does the population have access to the food they need to achieve a healthy (and socially acceptable) diet?
Are agricultural and fisheries incomes sufficient to keep workers out of absolute and relative poverty?

**Health services**
Are national vaccine programs reaching their target population?
Is there sufficient unbroken cold-chain to ensure provision of medicines and healthcare products?
Are health infrastructure buildings equipped with the cooling they need to deliver adequate health services?
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Introduction

- Cooling needs vary dramatically from those living in poor settings to those of small businesses or urban slum dwellers

- The differentiation in needs will require a range of financial products, instruments, and approaches to deliver specific solutions.

- Mapping finance needs and market gaps can help overcome financing barriers
  - Some barriers can be overcome with modest risk mitigants to attract private capital. Others will require substantial subsidies and grants

- Potential sources of funding will vary, and depend on: likelihood of commercial returns; local investment climate; and scale, among others
Enhancing human comfort and safety requires finding ways to make more efficient and climate-friendly systems with low upfront costs widely available to the poor is a major challenge that will require consumer financing and incentives, among others.

Agricultural cold chains and food systems likely necessitate grants or highly concessional finance to stimulate market development

Health services require highly concessional finance and public investment remains essential to market development
There is a wide range of financial tools that will be needed because not every type of finance or funding mechanism will be relevant or suitable for all cooling solutions.

Access to cooling raises diverse challenges specific to different areas of need, populations and governments, all of which in turn require targeted financial instruments.

In addition, these must be carefully matched with the intended type of financing party and expected beneficiaries.

There is a range of commercial financial instruments, including loans, equity investments and risk mitigants. Each of these can vary with the stage of a project or enterprise.
Gaps and barriers to adaptation finance for access to cooling
(adapted from UNEP FI, 2016: Demystifying adaptation finance by the private sector)

<table>
<thead>
<tr>
<th>Description of Gap and Barrier</th>
<th>Financial</th>
<th>Information</th>
<th>Institutional</th>
<th>Political and Regulatory</th>
<th>Technological</th>
<th>Social and Cultural</th>
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<td>Lack of financial resources, budget constraints or lack of access to credit</td>
<td>Lack of overview and understanding of the cooling needs and disaggregated data specific to a geography or market sector</td>
<td>General shortcomings in institutional arrangements and governance, in the public and/or private space</td>
<td>Adverse effects of policy and regulation on business motivations for adaptation investing</td>
<td>Lacking availability of, or access to, advanced technologies, tools and structures</td>
<td>Social and cultural processes that govern how people and other stakeholders react to climate variability and change</td>
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Examples of access to cooling finance by solution and need

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<tr>
<th>Human Comfort and Safety</th>
<th>Food, Agriculture, and Nutrition Security</th>
<th>Health Services</th>
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<tbody>
<tr>
<td>Subsidies or grants for cool roofs installed at educational facilities</td>
<td>Pay-as-you-store cold storage utilizing evaporative cooling</td>
<td>Hospital retrofits to maximize energy savings with external shading, green roofs, and blinds</td>
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<tr>
<td>Incentives for energy efficient fans</td>
<td>Community cooling hubs for agricultural producers</td>
<td>Mini-grid or off-grid generation investments to power rural clinics</td>
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Challenge 3: The financial sector

The financial sector is typically locally specific and dominated by risk-averse private sources of capital, while public and philanthropic sources with greater risk tolerance are more limited.

The financing challenge is to attract capital to emerging markets where the need is highest.

Challenge 4: Ability to track data and evidence

A formal tracking effort to understand access to cooling finance remains a key need for the community in order to establish a comprehensive baseline for investment, understand the trends and gaps, and to redirect efforts where further effort is required.

Tracking also helps enable target setting and benchmarking that can allow implementation organizations to realize new opportunities.
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<th>CONSIDERATION BY CLIMATE FUNDS</th>
<th>COORDINATING REFRIGERANT REPLACEMENT WITH ENERGY EFFICIENCY</th>
<th>LEVERAGE PUBLIC FUNDS WITH BLENDED FINANCE</th>
<th>TECHNICAL ASSISTANCE</th>
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<td>Has been very <strong>limited except for a few initiatives</strong> promoting more efficient appliances and more efficient buildings.</td>
<td>Coordination of funding for refrigerant replacement and for improving energy efficiency by reducing the operational and procedural complexities. New opportunities may arise from the <strong>Climate Investment Platform</strong>, which seeks to streamline general climate finance.</td>
<td><strong>Blended finance</strong> can increase the impact of public funds by leveraging public and philanthropic support. To deliver access to cooling, blended finance requires business models that can produce cash flows over time.</td>
<td>Technical assistance to improve the environment for investment is <strong>necessary to unlock capital</strong>, as well as for considering the co-benefits related to the <strong>Sustainable Development Goals</strong>.</td>
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## OPPORTUNITIES IN ACCESS TO COOLING FINANCE

### NATIONAL COOLING ACTION PLANS

Development of **national cooling action plans** are key opportunities for preparatory activities related to financing access to cooling solutions.

Governments will need to **coordinate across ministries and stakeholders** in order to apply for centralized financing.

Allow actors to clarify financing needs by country and sector, and **identify the financial beneficiaries** and suitable mechanisms.

### LINKING ACCESS TO COOLING WITH NDCs AND NAPs

Given their broad scope and ability to attract technical assistance financing, Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs), two processes that can be used to facilitate finance for access to sustainable cooling.

The **World Bank** has also identified technical assistance for NDCs as an avenue for promoting sustainable cooling.

**K-CEP** has also recently launched the **NDC Support Facility for Efficient, Climate-Friendly Cooling**.

### BULK PROCUREMENT

Bulk procurement of sustainable cooling solutions can address issues of scale with respect to the cost and efficiency of finance.

**Small, dispersed transactions are typically more costly to process**, and the challenge becomes still greater if purchasers are low income and lack creditworthiness.
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Track, report and share experiences
Development and climate finance are still in nascent stages of addressing access to cooling. Because of this, there is an urgent need for tracking, reporting, and the sharing of experiences – ideally in a partnership that brings relevant parties together to define access to cooling finance, including its relationship to energy access.

Link national cooling action plans to the Sustainable Development Goals (SDGs) and Nationally Determined Contributions
The focus on air conditioning, and to a lesser extent refrigeration, in response to the Kigali Amendment is promising, but there is still a long way to go. Countries with vulnerable groups without access to cooling should be developing national cooling action plans that link to the SDGs and support the NDCs to identify opportunities for finance. For countries that have developed a national cooling action plan, there may be a need to use a subsequent strengthening or implementation phase to realize better linkages to the SDGs.

Continuing success of the Kigali Cooling Efficiency Program (K-CEP)
Philanthropic K-CEP has delivered catalytic finance across its delivery windows with relatively limited resources. With many initiatives still in nascent stages and a need to show how technical and financial innovation can be delivered at scale, it is important that the K-CEP be continued through 2025 and, if possible, expanded through the addition of bilateral and multilateral donor funding.
**Build evidence of the benefits of agriculture cold chain**

The issue of cold chains for rural agriculture has not received nearly the attention it should given the strong linkages to the SDGs and economic benefits. A lack of data on cold chain breakdowns remains a barrier to market development, and modest finance for technical assistance could make a valuable contribution.

**Build evidence of the benefits of health services cold chain**

Health issues have a small dedicated constituency that could be linked more effectively to the larger challenge of delivering access to cooling. The sector could channel finance through its procurement power and incentives to ensure innovative, energy-efficient cooling technologies such as solar direct-drive vaccine refrigerators are available and affordable for health facilities in low-income countries.

**Coordinate refrigerant phasedown and efficiency improvement funding**

Financing for the refrigerant HFC phasedown and energy efficiency improvements will be more effective when coordinated. Development agencies and financing institutions must advance financial solutions and facilities that bridge the divide. Timing is critical. Without quick action, we may not be able to fully realize the climate benefits of the HFC phasedown and deliver access to cooling.
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Discussants

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- Senior Climate Finance and Policy Consultant
- Advisor to the Cooling for All Secretariat

Helen Picot
- Head of Access to Cooling and Strengthening for Efficiency, Kigali Cooling Efficiency Program
- Advisor to the Cooling for All Secretariat

Olivia Coldrey
- Lead, Energy Finance, Sustainable Energy for All

Moderator: Brian Dean
- Head of Energy Efficiency and Cooling, Sustainable Energy for All
Questions or Comments

Please ask any questions in the chat box

Direct follow up and other questions can be sent to coolingforall@seforall.org
Thank you!

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