



E3G

BRIEFING PAPER MARCH 2023

# INNOVATIVE MULTILATERAL DEVELOPMENT BANK ADAPTATION FINANCING FOR COOLING PILOT PROPOSAL

**SONIA DUNLOP, ENRIQUE MADEREEL, VIKTOR  
AHLGREN AND LARISSA GROSS**

Cooling is a critical sector for climate adaptation. However, multilateral development banks (MDBs) and development finance institutions (DFIs) face barriers to scaling up dedicated financing. This briefing proposes that a joint MDB–DFI facility is set up to tackle the relevant barriers and challenges and to increase cooperation and activity on cooling.

This briefing draws on insights from a series of workshops with MDB climate adaptation experts, convened by E3G in cooperation with the UK Foreign, Commonwealth and Development Office. The series included a dedicated technical workshop on cooling and buildings. E3G has also produced a separate briefing summarising the content of the workshop series' discussions.<sup>1</sup>

## Context

The cooling of buildings, transport and value chains currently accounts for 17% of global power consumption. If current trends persist, cooling demand is expected to triple by 2050.<sup>2</sup> The fastest growth will be seen in the Global South due to a combination of rising incomes, urbanisation, and exposure to rising temperatures. Cooling is not only crucial for labour productivity and human welfare; it is integral to several critical industries such as healthcare and food. As

---

<sup>1</sup> E3G, March 2023, **Innovative multilateral development bank finance for adaptation**

<sup>2</sup> IEA, 2018, **The Future of Cooling**



E3G

---

such, with the growing ubiquity of its use, cooling is both a contributor to global warming and a critical means of adapting to its impacts.<sup>3</sup>

Multilateral Development Banks (MDBs) and their financial partners can play an important role as key providers of both technical and financial assistance, and in mainstreaming sustainable and efficient cooling into all their relevant projects and operations.<sup>4</sup> However, fulfilling this potential is not without challenges.

## Barriers and challenges

Four key challenges to scaling up and mainstreaming sustainable and efficient cooling across MDB operations were discussed by experts during the workshops:<sup>5</sup>

### 1. Misperception of cooling as a “niche” issue

MDBs and their clients continue to approach cooling as “niche”, seeing it as a subset of energy efficiency rather than a cross-cutting issue. Hence, it receives limited dedicated strategic support from these institutions and is not systematically measured or tracked. In part, this is due to the overlap of adaptation and mitigation tracking methodologies, but it is also a result of limited monitoring and measuring capacity among MDBs and their clients. Similarly, cooling remains infrequently integrated as a specific strategic area in National Development Plans, indicating that most governments insufficiently recognise the importance and value of sustainable and efficient cooling. However, some governments **are** beginning to recognise the importance of sustainable cooling and to coordinate tailored national action. To this effect, more than 25 countries have published National Cooling Action Plans (NCAPs). Similarly, cities are recognising the strategic importance of sustainable cooling in adapting to extreme heat, such as through the appointment of Chief Heat Officers.<sup>6</sup>

### 2. Lack of harmonised standards on cooling

There are currently no harmonised standards among MDBs on energy efficiency or cooling technologies. Instead, MDBs tend to rely on local standards, which are

---

<sup>3</sup> Cool Coalition, **Why Cooling?** (webpage, accessed March 2023)

<sup>4</sup> E3G, 2019, **A cooling opportunity for Multilateral Development Banks**

<sup>5</sup> Challenges and opportunities on cooling for development banks have previously been set out in an E3G briefing: E3G, 2020, **Cool Development Banks: Rising to the Challenge of Cooling a Warming World**

<sup>6</sup> One Billion Resilient, **Chief Heat Officers** (webpage, accessed March 2023)

---



E3G

---

highly variable across project contexts. Furthermore, while the tracking of adaptation finance itself is governed by a joint MDB methodology, interpretation of this joint methodology varies.<sup>7</sup> This makes any standardised tracking of adaptation finance for cooling more difficult. Relatedly, cooling is itself not consistently incorporated in environmental assessments of projects as an adaptation issue.

### **3. Disincentives associated with the small ticket-size of cooling projects**

MDB financing of cooling projects is often impeded by the typically small ticket-size of projects. Having a plethora of smaller sized individual projects implies expensive transaction costs. Additionally, member countries themselves tend to prefer to seek MDB finance for larger and more visible projects. Relatedly, cooling solutions such as air conditioning are in some cases still erroneously perceived as a “luxury” rather than an adaptation necessity, despite evidence to the contrary.<sup>8</sup>

### **4. Lack of dedicated support for typically small-scale clients**

Many cooling projects and technologies are ultimately implemented by micro-, small and medium-sized enterprises (MSMEs) in low-income countries (LICs) and middle-income countries (MICs). These clients often face a number of challenges when accessing (adaptation) finance. As mentioned, there is a bias within MDBs towards large-scale projects and large clients, and a lack of MDB facilities that specifically target small-scale clients. This phenomenon is not unique to the cooling space. Linking cooling to economic development and other Sustainable Development Goals (SDGs), such as food security and health, can help reinforce the pressing need to ensure access to financing for the plethora of prospective small-scale projects.

## **Opportunities**

MDBs have started to recognise the exponential growth in cooling demand and its role in climate adaptation. Traditionally, MDB efforts have been focused on financing cooling efficiency in the building sector, or reforming financial and sectoral regulations in an attempt to improve access to cooling finance. Notable examples of MDB facilities in this area are the Green Climate Fund (GCF) and

---

<sup>7</sup> MDBs, 2022, [Joint methodology for tracking climate change adaptation finance \(eib.org\)](https://www.eib.org/en/press-releases/2022/03-01-joint-methodology-for-tracking-climate-change-adaptation-finance)

<sup>8</sup> Sustainable Energy for All, [Cooling for All](https://www.se4all.org/en/cooling-for-all), (webpage, accessed March 2023). The value of small-scale projects and ways in which the associated barriers can be overcome by MDBs has also been documented across other sectors, notably by [E3G in the energy sector](https://www.e3g.org/en/energy-sector).



E3G

---

World Bank’s “Cooling Facility”, and a number of international initiatives on cooling supported by MDBs.<sup>9</sup>

However, MDBs can play an even greater role through facilitating the crowding-in of other financiers to this market, such as private investors and local financial institutions in LICs and MICs, in a more structural and targeted manner. In this regard, there is a critical need for cooling to be mainstreamed across strategies, operations and projects to address the cooling financing gap and to enable the development of resilient projects.

### **The potential of enhanced cooperation on cooling**

The need and potential for harmonisation of approaches between MDBs, and for focused engagement with financial intermediaries, is clear. Pulling together cross-MDB expertise and intermediary finance to scale up the dissemination of sustainable and efficient cooling solutions sends a strong market signal. This can help change any perception of “niche” cooling projects and will also facilitate increased communication and exchange of best practices and lessons learnt. Relatedly, joint MDB action on this front represents an effective way of pooling risk and spreading out the transaction costs associated with the relevant due diligence processes.

Moreover, working with financial intermediaries represents a real opportunity to provide targeted support for MSMEs – a segment which normally lacks access to financing. Jointly funded technical assistance can facilitate the incubation of projects not yet at a bankable stage, building robust business cases and thus reducing risk. In this way the role of intermediaries is strengthened, as MSMEs typically have closer relationships with local banks. Trusted local institutions are a prime vector for disseminating support to typically small-scale cooling projects. Complemented by MDB expertise, intermediaries are well placed to fulfil this role.

## **Proposal**

This paper proposes that a **Joint MDB–DFI Facility on Sustainable and Efficient Cooling** is set up, to tackle the identified challenges and explore the potential for increased cooperation and activity in cooling and adaptation. The facility would be designed to scale up adaptation finance, develop expertise and capacity

---

<sup>9</sup> Green Climate Fund, **FP177: Cooling Facility** (webpage, accessed March 2023)



E3G

---

within partner financial institutions, and in particular scale up sustainable cooling for MSMEs in LICs and MICs.

### **Design**

In practice, this proposal would take the form of a concessional cooling facility to fund pilots and technical assistance set up between a group of MDBs and their partner financial institutions. Such pilots could focus on a predetermined set of LIC and MICs, particularly those with a high level of vulnerability to climate change and high demand for cooling. Additionally, such a facility would enable the establishment of blended finance instruments with the potential support of philanthropic stakeholders as well as key shareholder governments.

Minimum cooling efficiency technology standards would be established across such a facility, countering typical variability in local standards. Moreover, it is important to highlight the need for transparency in relation to any intermediary finance. The facility would have a specific focus on the use of innovative financial instruments to support the integration of sustainable and efficient cooling into projects, such as Cooling as a Service models through support for the procurement of efficient, climate-friendly equipment, or funding a demonstration project.

The Energy Sector Management Assistance Program (ESMAP) in the World Bank has already done a considerable amount of work in this area and could be a potential institutional home or coordinating entity of such a facility.

### **Benefits**

Local partner financial institutions could benefit from the exchange in experience and expertise, which would help intermediaries to build up their own capacity for climate risk assessment. The joint MDB cooling facility would signal clear intention by MDBs to support a vital adaptation and mitigation area. Risk sharing between MDBs and local financial intermediaries would enable greater risk-taking support through for example mezzanine loans, guarantees, or equity for small-scale projects.

The cooling facility would specifically enable MDBs and their partner financial institutions to target MSMEs in priority cross-cutting sectors, such as agribusiness, transport, and healthcare. In each of these, cooling is a key consideration, being critically involved in both associated supply chains and the working conditions underpinning productivity. The cooperation between MDBs and local financial institutions would help the MDBs to target MSMEs indirectly



E3G

---

through intermediaries, while providing these intermediaries with grants, concessional finance, risk sharing instruments and technical assistance services.

The facility should also generate a common project pipeline across the MDBs and DFIs involved. In this way, those projects which would still be at a nascent stage, could be supported by the technical assistance arm to increase their bankability. A common pipeline would thus be valuable beyond just accountability and transparency reasons, as it would enable tracking of projects' efficiency and impact. Ultimately this will contribute to more rigorous counting of adaptation financing in this sector, as well as building a stronger case for cooling and recognition of its benefits to a number of SDGs.

## Next steps

Participating MDBs and their shareholders should begin by deciding on an existing MDB financing facility in LIC or MIC countries, such as the GEF or The Cooling Facility, to expand operations in line with this proposal. As a pilot, the selected facility could for example introduce sustainable procurement practices to influence the purchasing behaviour of MSMEs and local intermediaries, while offering training and capacity building programmes to ensure the local workforce can take ownership of the process. The training programmes could focus on monitoring, maintenance and optimisation of cooling technologies to ensure optimal equipment performance. This pilot would be equipped with a monitoring and evaluation (M&E) framework to collect data on its performance to be reviewed after a two-year period to assess lessons learned and next steps.



E3G

---

## About E3G

E3G is an independent climate change think tank with a global outlook. We work on the frontier of the climate landscape, tackling the barriers and advancing the solutions to a safe climate. Our goal is to translate climate politics, economics and policies into action.

E3G builds broad-based coalitions to deliver a safe climate, working closely with like-minded partners in government, politics, civil society, science, the media, public interest foundations and elsewhere to leverage change.

More information is available at [www.e3g.org](http://www.e3g.org)

### **Copyright**

This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License. © E3G 2023