

Incentivizing Finance Flows towards Sustainable Cooling

Assad Nissar | International Finance Corporation (IFC) / World
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Sustainable Cooling is a Multi-Billion Dollar Market Opportunity



\$600B+ annual cooling market in EMDEs by 2050 — double today's \$300B

7x cooling market growth expected in Africa by 2050

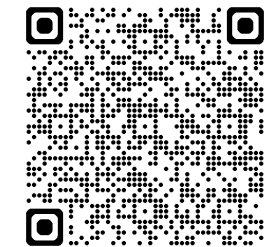
4x cooling market expansion in South Asia by 2050

\$5.6T in consumer electricity savings over 25 years with efficient cooling

\$1.8T in avoided power generation investment

\$400–800B needed to close the current cooling access gap

Source: IFC-UNEP Cooler Finance Report, September 2024



[DOWNLOAD THE REPORT](#)

Finance Isn't Flowing—And It's Not an Accident



Cooling sits in a structural blind spot for lenders and investors:



Hard to identify — cooling is embedded inside buildings, agribusiness deals, and investments. Lenders see real estate or agriculture — not cooling.



Hard to isolate — financing needs span manufacturers, retailers, developers, and end users simultaneously. There is no clean deal to structure.



Hard to track — companies often self-fund upgrades, or bundle cooling into broader contracts. It never reaches a lender's books as a discrete investment.



Hard to secure — unlike solar panels on a rooftop, cooling equipment is often integrated into infrastructure, making it difficult to identify as collateral.

The result: a market growing at 7× in Africa and 4× in South Asia — largely invisible to the financial system.

World Bank Group's Sustainable Cooling and Heat Resilience Initiative: "five by five" plan



FIVE FOCUS SECTORS

BUILT ENVIRONMENT



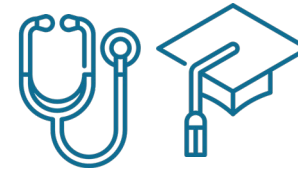
MANUFACTURING



AGRIBUSINESS & COLD CHAINS



HEALTH & EDUCATION



TRANSPORTATION & INFRASTRUCTURE



INNOVATION IN FINANCIAL AND BUSINESS MODELS

FIVE ENGAGEMENT PILLARS

INSIGHTS



INFLUENCE



INNOVATION



INVESTMENT



IMPACT



CASE STUDIES: EMBEDDING COOLING IN IFC'S INVESTMENTS



Brookfield REIT, India

- **\$350 million** finance package for portfolio of office properties
- Client committed to **EDGE Advanced** (40% efficiency) and **BRI** (resilience)
- **Adaptation:** TA will model future temp. increases



Signature Global, India

- **\$100 million** investment
- Housing developer
- Client committed to **EDGE Advanced** (40% efficiency)
- TA flowing through IFC's **GRIP program** for portfolio owners of real estate



Raiar, Brazil

- **\$125 million** possible deal
- Organic chicken farm – IFC will help scale 10x to 200,000 birds
- **Technical assistance** to look into: 1) Cooling for chicken sheds – adaptation to rising heat & 2) Cold chains
- Supported through the regional association for refrigeration



Astarta, Ukraine

- Part of **\$400 million** deal pipeline expected for Agri Europe
- Large agri conglomerate with cooling needs **across the value chain**
- 30-40% of food is wasted because of inadequate cold chains

CASE STUDIES: MATCHING INNOVATORS WITH ADOPTERS



NOF, India and Mexico

- Chilled CO2 cooling of freshly picked produce to arrest rotting
- **Pay-as-you-go** model to reach small farmers
- Better incomes and reduction of food losses
- **IFC grant** to help innovator scale up in new markets



Hospitality, India

- Collaboration with IHCL, owner of **Taj Hotels**
- **De-risking** innovation piloting via \$500,000 in **CapEx grants**
- Taj Hotels tried a number of space cooling solutions, including cooling-as-service
- Significant **utility bill reduction**



Koolboks, Nigeria

- **Solar-powered freezers** for SMEs and residential users
- Off-grid solutions prevents food spoilage and revenue loss
- Pay-as-you go solution for greater reach
- IFC supported through **CapEx grants and matching** with adopters



Tessol, India

- **Cold chain solutions** through PCM (phase change materials)
- Suitable for trucks, storage, warehousing
- IFC help through **CapEx grants and matching**
- **Results:** Big Basket Retailer saw 22% reduction in energy bills,

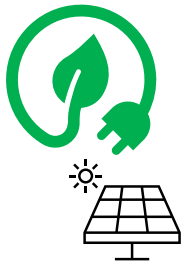
WHAT NEEDS TO HAPPEN NOW



For policymakers: Adopt cooling taxonomies to unlock green finance — classify efficient appliances as eligible assets



For financiers & DFIs: Scale blended finance and concessional capital to de-risk first-of-kind cooling investments in EMDEs



For the ecosystem: Build on the Global Cooling Pledge to establish a Sustainable Cooling Finance Partnership

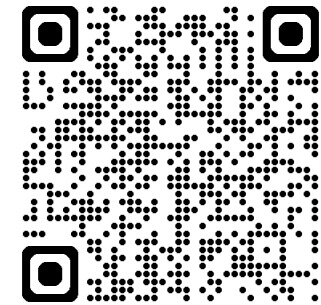
*The research, the technology, the model, and the proof exist.
The missing piece is collective action.*



Assad Nissar

Private Sector Development Specialist

cooling@ifc.org



<https://coolcoalition.org/events/taxonomies-financing-efficient-consumer-appliances>