Cool Up Upscaling Sustainable Cooling

COOLING CARBON CREDITS: AN OPPORTUNITY TO UPSCALE SUSTAINABLE COOLING

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The cooling challenge

The planet is heating up. Climate change is already causing longer hot periods and higher extreme temperatures across the Middle East and North Africa (MENA) region. The region is currently warming at double the global average and predicted to be 4º Celsius warmer by mid-century. Such extreme temperatures will result in increased demand for air conditioning and refrigeration, creating increased demand for electricity and refrigerants with high global warming potential. Without further policy intervention, direct and indirect emissions from cooling and refrigeration may rise 90% above 2017 levels by 2050, creating a vicious feedback loop.

To reduce cooling demand and tackle its adverse impacts on the ozone layer and climate, accelerated technological change is essential. Sustainable cooling solutions exist and are available, though need financing to be brought to scale as financing mechanism for cooling are rare and not widely implemented.

Carbon markets and carbon crediting mechanisms provide a potential financing opportunity to speed up the implementation of sustainable cooling solutions. Sustainable cooling projects could be mobilized via revenues from the selling emission credits on international carbon markets under the Paris Agreement.

Cooling credits: An opportunity for financing sustainable cooling

Two new carbon pricing instruments under the Paris Agreement are generating momentum and opportunities to invest in sustainable cooling solutions. The Cooperative Approach (Article 6.2) will allow for the use of direct bilateral arrangements to develop emissions reduction activities in a host country. These arrangements generate credits, called Internationally Transferred Mitigation Outcomes (ITMOs) that can be transferred to help partner countries meet their National Determined Contributions (NDCs) under the Paris Agreement. The Mechanism (Article 6.4) would allow for a company in one country to reduce emissions in that country and have those reductions credited so that it can sell those ITMOs to another company in another country. That second company may use them for complying with its own emission reduction obligations or to help it meet net-zero.

The UNFCCC has unanimously agreed on recommendations for the approach of how projects may be credited under Article 6 of the Paris Agreement, outlining authorization processes for ITMO's and participating entities, reporting procedures, and operating functionalities for a to be developed international registry for viable credits under Article 6. With the new international crediting mechanisms taking shape, 'Cooling credits' enabled by Article 6.2 and Article 6.4 could offer a potential financing mechanism for sustainable cooling projects while simultaneously perpetuating emissions reductions in the cooling sector.

There are existing carbon crediting mechanisms in place which allow the generation of credits from activities in the cooling sector, including the Clean Development Mechanism (CDM) district cooling methodology and the North American Sustainable Refrigeration refrigerant carbon credit program currently registered with Verra and the American Carbon Registry. However, these crediting mechanisms

do not provide methodologies for the full suite of sustainable cooling technologies, nor are they scaled and leveraged for project implementation throughout the world.

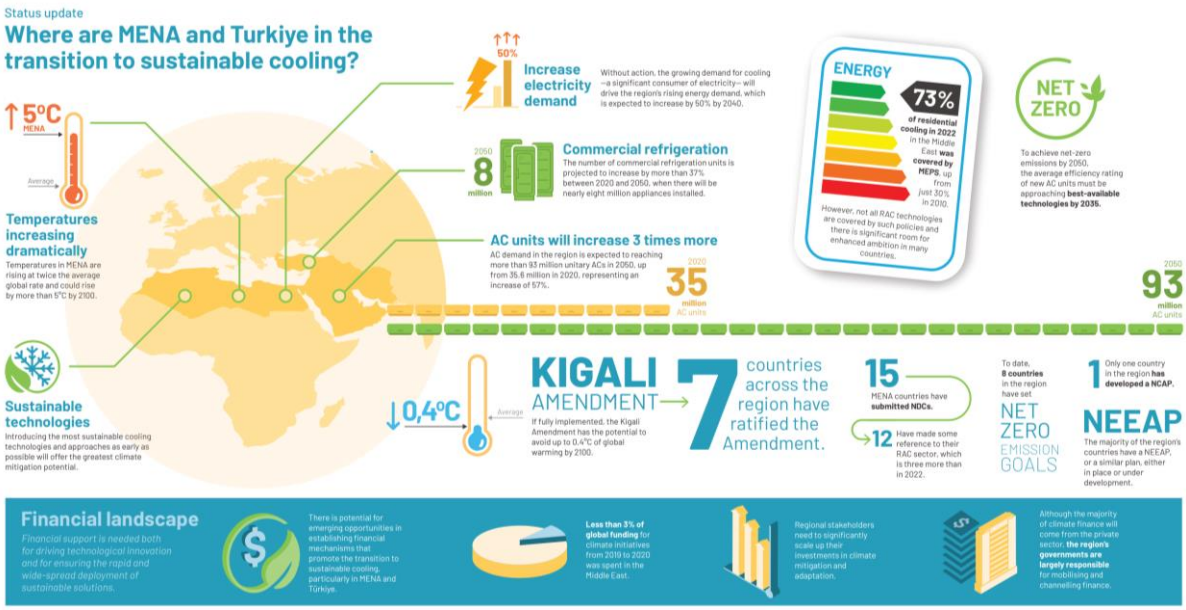
Bringing cooling credits under Article 6.2 to life

Given the Article 6 crediting methodology guidance for project and participating entities has been agreed on, several key steps will need to be taken to make cooling credits a reality:

	Develop a cooling credit **methodology** that builds on existing cooling crediting systems, and encompasses current technologies, and considers direct and indirect emissions
	Establish **agreements** between host and partner countries to use cooling credits towards meeting Nationally Determined Contributions (NDCs)
KIGALI	Align **baseline** definitions for hydrofluorocarbons (HFC) emissions levels under the Kigali Agreement, NDC's and Article 6 to make cooling credits a viable emissions reduction option in real time
	Enhance the **climate community's understanding** of the cooling challenge and mitigation potential to reduce emissions and implement the Paris Agreement

Cool Up's work in the region

The Cool Up programme promotes accelerated technological change in cooling demand reduction, and early implementation of the Kigali Amendment to the Montreal Protocol and Paris Agreement in Egypt, Jordan, Lebanon, and Türkiye. These countries are simultaneously experiencing fast-growing demand for cooling, increasing final energy consumption, and structural challenges in the energy sector. They also have high potential to boost energy efficiency and the use of natural refrigerants in the cooling and refrigeration sector.



Source: Cool Up (2023): Status Update: Where are MENA and Türkiye in the transition to sustainable cooling? https://www.coolupprogramme.org/knowledge-base/snapshots/status-update-where-are-mena-and-turkiye-in-the-transition-to-sustainable-cooling/