

# Cool Contributions fighting Climate Change II

## Advancing nationally determined contributions through climate-friendly cooling

### Background

The refrigeration, air-conditioning, and foam blowing (RAC&F) sector is increasingly contributing to global greenhouse gas (GHG) emissions due to indirect and direct emissions. Making up the major share of GHGs in the sector, indirect emissions result from the energy consumption of RAC appliances. Direct emissions are caused by the release of fluorinated gases (F-Gases) used as refrigerants in cooling appliances. This makes the RAC&F sector a significant area for immediate mitigation actions and a key source for nationally determined contributions (NDCs).

F-gases are among the most highly climate damaging GHGs with global warming potential (GWP) values up to 4000 times more than that of CO<sub>2</sub>. Hydrofluorocarbons (HFCs), the most commonly used F-gases, are now the fastest growing GHGs.<sup>1</sup> The global phase-down of HFCs is regulated under the Kigali Amendment to the Montreal Protocol entering into force by 2019.

The mandated international control for F-gases will also aid countries in taking F-gases into account as they formulate and implement their NDCs. The reduction of F-gases provides a huge and achievable potential considering they are mainly used in one sector, which is rigorously regulated under the Montreal Protocol. Moreover, alternative, climate-friendly systems with high energy efficiency and natural refrigerants as well as blowing agents are already established in a number of applications. However, their widespread dissemination is hindered by political, economic, and capacity-related barriers.

### About C4 II

The Paris Agreement and the Kigali Amendment to the Montreal Protocol provide the international framework for sustainable cooling. However, more policy coherence between the Paris Agreement and the Montreal Protocol is needed to enable ambitious climate action in the RAC sector. The global project C4 II is a continuation of the IKI project "Cool Contributions fighting Climate Change" (C4 I) and assists policymakers in designing and implementing more ambitious NDCs in the cooling sector. The focus countries are Costa Rica, Grenada, and the Philippines.

Building on long-standing cooperation and transformation processes already initiated in C4 I, the project aims at strengthening national structures in the partner countries for the implementation of NDC strategies in the RAC sector. All three countries have developed comprehensive RAC sector greenhouse gas (GHG) inventories and strategies, which serve as a basis for target-oriented policy making.

In addition, the project will leverage good practices and methods developed in the first phase to support other countries to prepare cooling related NDC strategies.

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## Outputs:

1. Supporting partner countries in improving national structures for NDC strategy implementation in the RAC sector.
2. Supporting additional countries in the application of best practices for NDC strategy development in the RAC sector.
3. Developing concepts to harmonize measures in cooperation with relevant institutions in the context of the UNFCCC and the Montreal Protocol.

## Country Specific Activities

**C4 II will work with the Philippines, Grenada, and Costa Rica.**

Cooperation with the three partner countries is twofold:

1. Countries will be supported in advancing and implementing the cooling strategies developed with C4 I assistance.
2. All three countries will serve as valuable sources of knowledge on cooling strategies, policy approaches and green cooling technology demonstration, which is highly relevant for an increasing number of third countries.

**The Philippines** will be supported in further promoting “leapfrogging” to green technologies in the RAC sector.

**Grenada** will be supported in meeting its ambitious targets for the cooling sector and in strengthening the regional institutional network in the Caribbean to replicate Grenada's best practices and NDC-RAC strategies.

C4 II will assist **Costa Rica** in reducing the country's reliance on F-gases, define and model mitigation scenarios as well as strategies for the different sub-sectors and share Costa Rica's expertise in Green Public Procurement with other partner countries in the region and beyond. Furthermore, additional training activities are planned to promote the use of natural refrigerants in the commercial refrigeration sector.

**Title** Cool Contributions fighting Climate Change II (C4 II)

**Country** Costa Rica, Grenada, Philippines

**Sector** Refrigeration, air-conditioning, and foam (RAC&F)

**Objective** Support partner countries in implementing more ambitious NDC measures in the RAC sector and additional countries in preparing GHG mitigation strategies for the RAC sector

**Target Group** National departments of climate and ozone protection, relevant international initiatives and alliances in the F-gas discussions, multilateral implementing agencies, industrial associations, and technology suppliers

**Project Executing Organization** German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV)

**Implementing Partner Organization** Environmental Ministries and National Ozone Units in selected partner countries

**Project Approval** June 2022

**Project Duration** July 2021- January 2025

**Project Budget** EUR 2,900,000

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