Denmark's support to UN Environment Programme Cool Coalition

Key results:

- Comprehensive actions by public and private stakeholders on efficient, climate friendly cooling linked to NDCs and SDGs.
- Governments, industry and civil society have increased actionable knowledge on efficient, climate friendly cooling and a greater capacity to act.
- Raised ambitions in the NDCs, to tackle cooling
- Raised awareness on the role of efficient, climate friendly cooling in achieving the SDGs.

Justification for support:

- The Cool Coalition is the only global multistakeholder partnership dedicated to delivering a comprehensive approach to cooling.
- The initiative is strongly in line with the Danish strategies for development cooperation and climate, not least "Africa's Century" that e.g. aims to strengthen cool chains in Africa.
- Danish Ministers for Development Cooperation have had a high international profile on the cooling agenda as "Cool Champions". A similar role for the Minister for Foreign Affairs is being considered.

Major risks and challenges:

- Lack of political commitment to comprehensive action on climate friendly cooling.
- Variety of stakeholders gives coordination challenges.
- Variation in stakeholder engagement in workplan activities.
 More focus on commercial solutions e.g. active cooling
- than structural solutions e.g. passive cooling

File No.			23/31329				
Country	Country			Global			
Responsible	Responsible Unit			KLIMA			
Sector			Climate	/Energy			
Partner			UNEP				
	DKK mi	illion	2024	2025	2026	Tota	1
Commitment	:		15.0			15.0	
Projected dis	bursement		10.0	50		15.0	
Duration			2024-20	26			
Previous gra	ints			0 million		and	
T ! A .	1		DKK 5.0 million in 2021				
Finance Act			06.34.01.70				
Head of uni	Head of unit			Mads Emil Stærk			
Desk officer	Desk officer			Ørnemar	k		
Reviewed by	Reviewed by CFO			e Høygaai	d Jenser	ı)	
Relevant S	BDGs (Max	imum	1 — highli	ght with gr	ey)		
1 المربقة بناغيرية No Poverty	2 Winter	Go	od Health, /ellbeing	4 BRANT Quality Education		ender uality	Clean Water, Sanitation
Affordable Clean Energy	8 title des au Decent Jobs, Econ.	In	meration and meratimeter industry, novation, astructure	Reduced Inequalitie	Susta s Ci	ties,	Responsible Consumption

Objectives:

The development objective is to support comprehensive action to reduce energy demand and cut emissions from the cooling sector by over 60 pct. by 2050 while providing universal access to sustainable cooling and protecting vulnerable groups from heat stress in line with the Paris Agreement, the SDGs, the Kigali Amendment and the Global Cooling Pledge.

Climate Action

Life belov

Water

Life on Land

Peace &

Justice.

Partnership

for Goals

Environment and climate targeting - Principal objective (100%); Significant objective (50%)

	F.						
	Climate adaptation	Climate mitigation	Biodiversity	Other green/ environment			
Indicate 0, 50% or 100%	50%	50%					
Total green budget (DKK)	DKK 7.5 million	DKK 7.5 million					

Justification for choice of partner:

Hosted by UNEP, the Cool Coalition is a vital global multi-stakeholder network that connects 160 partners from governments, cities, international organizations, businesses, finance, academia, and civil society groups to facilitate knowledge exchange, advocacy and joint action towards a rapid global transition to efficient and climate-friendly cooling.

Summary:

Demand for cooling is rapidly growing. Cooling is vital in many different sectors e.g. health, agriculture and food systems, buildings and infrastructure. 1.2 billion people in Africa and Asia lack access to vital cooling services putting lives at risk from extreme heat, reducing farmers' incomes, driving food loss and waste, and hindering universal vaccine access. Cooling will be one of the top drivers of global electricity demand over the next decades and if left unchecked, emissions from cooling are expected to double by 2030. Denmark's contribution will support Cool Coalition's core functions as well as the development of knowledge products and to pilot in the implementation of the NCAPs and the integration of cooling in NDCs.

Budget:

Component 1: Cool Coalition Hub	DKK 3.3 million
Component 2: Advancing the Knowledge base	DKK 4.4 million
Component 3: Technical Assistance and Unlocking Finance	DKK 3.7 million
Component 4: Advocacy and Outreach	DKK 1.7 million
Programme Management	DKK 1.9 million
Total	DKK 15.0 million

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Danish support to UN Environment Program Cool Coalition 2024-2026

October 2024

23/29831

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Abbreviations

CEMClean Energy MinisterialCCACCool Hub of the Climate and Clean Air CoalitionCO2eCarbon dioxide equivalentCOPUNFCCC Conference of PartiesDanidaDanish International Development AidDMDPDanida Market Development PartnershipEUEuropean UnionGHGGreenhouse GasesGWPGlobal Warming PotentialKLIMAGreen Diplomacy and Climate Department (GDK) of the Ministry of Foreign Affairs of DenmarkNCAPNational Cooling Action PlanNDCSustainable Development GoalsSE4ALLSustainable Energy for AllUNEPUnited Nations Environment ProgramUNSGUnited Nations Secretary General		
CO2eCarbon dioxide equivalentCOPUNFCCC Conference of PartiesDanidaDanish International Development AidDMDPDanida Market Development PartnershipEUEuropean UnionGHGGreenhouse GasesGWPGlobal Warming PotentialKLIMAGreen Diplomacy and Climate Department (GDK) of the Ministry of Foreign Affairs of DenmarkNCAPNational Cooling Action PlanNDCSustainable Development GoalsSE4ALLSustainable Energy for AllUNEPUnited Nations Environment Program	CEM	Clean Energy Ministerial
COPUNFCCC Conference of PartiesDanidaDanish International Development AidDMDPDanida Market Development PartnershipEUEuropean UnionGHGGreenhouse GasesGWPGlobal Warming PotentialKLIMAGreen Diplomacy and Climate Department (GDK) of the Ministry of Foreign Affairs of DenmarkNCAPNational Cooling Action PlanNDCNationally Determined ContributionsSDGSustainable Development GoalsSE4ALLSustainable Energy for AllUNEPUnited Nations Environment Program	CCAC	Cool Hub of the Climate and Clean Air Coalition
DanidaDanish International Development AidDMDPDanida Market Development PartnershipEUEuropean UnionGHGGreenhouse GasesGWPGlobal Warming PotentialKLIMAGreen Diplomacy and Climate Department (GDK) of the Ministry of Foreign Affairs of DenmarkNCAPNational Cooling Action PlanSDGSustainable Development GoalsSE4ALLSustainable Energy for AllUNEPUnited Nations Environment Program	CO2e	Carbon dioxide equivalent
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EUEuropean UnionGHGGreenhouse GasesGWPGlobal Warming PotentialKLIMAGreen Diplomacy and Climate Department (GDK) of the Ministry of Foreign Affairs of DenmarkNCAPNational Cooling Action PlanNDCNationally Determined ContributionsSDGSustainable Development GoalsSE4ALLSustainable Energy for AllUNEPUnited Nations Environment Program	Danida	Danish International Development Aid
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NCAPNational Cooling Action PlanNDCNationally Determined ContributionsSDGSustainable Development GoalsSE4ALLSustainable Energy for AllUNEPUnited Nations Environment Program	GWP	Global Warming Potential
NDCNationally Determined ContributionsSDGSustainable Development GoalsSE4ALLSustainable Energy for AllUNEPUnited Nations Environment Program	KLIMA	Green Diplomacy and Climate Department (GDK) of the Ministry of Foreign Affairs of Denmark
SDG Sustainable Development Goals SE4ALL Sustainable Energy for All UNEP United Nations Environment Program	NCAP	National Cooling Action Plan
SE4ALL Sustainable Energy for All UNEP United Nations Environment Program	NDC	Nationally Determined Contributions
UNEP United Nations Environment Program	SDG	Sustainable Development Goals
	SE4ALL	Sustainable Energy for All
UNSG United Nations Secretary General	UNEP	United Nations Environment Program
	UNSG	United Nations Secretary General

1. Introduction

This project document outlines the background, rationale and justification, objectives and management arrangements for development cooperation concerning Danish support to UN Environment Programme (UNEP) Cool Coalition 2024-2026 as agreed between the parties: The Cool Coalition and the Green Diplomacy and Climate Department (KLIMA) of the Ministry of Foreign Affairs of Denmark. The project document is an annex to the legal bilateral agreement with the implementing partner and constitutes an integral part hereof together with the documentation specified below.

This project document concerns a commitment on the part of the Ministry of Foreign Affairs, Denmark to contribute 15 million DKK to UNEP in support of the Cool Coalition 2024-2026.

The Cool Coalition was launched in 2019 as a global initiative to advocate for and take action to meet rising demands for cooling in a comprehensive manner. Denmark was the first and the main partner providing core funding with a grant of 10 million Danish kroner from December 2019 – January 2024 to enable the secretariat to deliver the Cool Coalition mandate. The political and financial support from Denmark was critical for UNEP to establish the Cool Coalition as an official outcome of the Secretary General's Climate Action Summit in 2019 and for its subsequent scaling of activities. Its Secretariat is hosted by UNEP in Paris.

The Coalition had its origins in the First Global Conference on Synergies between the 2030 Agenda and the Paris Agreement, where partners defined 'comprehensive' in the area of cooling as delivering on the Paris Agreement, the Sustainable Development Goals (SDGs), and the Kigali Amendment to the Montreal Protocol. Within a few months, the Cool Coalition mobilized several high-level commitments to fast action on cooling from state and non-state actors and became a <u>transformative initiative</u> of the United Nations Secretary-General's (UNSG) Climate Action Summit in September 2019. https://coolcoalition.org/about/cool-champions/

The overall objective of the Cool Coalition is that government and industry take, or firmly commit to taking, action to meet demands for cooling in a comprehensive manner, which is linked to the nationally determined contributions (NDC's) enhancement and-implementation and are in line with the Paris Agreement, SDG 7 as well as the Kigali Amendment. The Danish funding was used to allow UNEP to focus on rallying and supporting implementation in developing country governments and industry with significant presence in developing countries.

To realize this objective, **the Cool Coalition was established as a platform,** which brings together actors from government, cities, international organizations, businesses, finance and academic institutions, and civil society to facilitate joint action, knowledge exchange, technical assistance and advocacy directed at governments to accelerate the global transition to efficient, climate-friendly cooling. The Cool Coalition provides technical assistance to countries and cities to implement a more ambitious, holistic, and cross-sectoral approach to meet growing demands for cooling, which contributes to both the broader sustainable development and addressing the climate crisis. Thus, the coalition works in a comprehensive way linking the Kigali Amendment, Paris Agreement and Sustainable Development Goals.

Since its founding, the Coalition has grown in membership and impact. The Coalition currently has 150 members who are collaborating on science and policy development, knowledge exchange, advocacy and joint action on sustainable cooling directed at governments and industry. The governance comprises an Executive Committee and a Steering Committee - which include members from countries, industry, finance, academia, civil society, and international organizations. One of the Cool Coalition's

strongest industry partnerships is with Danfoss which is part of the Coalition's Executive Committee. A Technical Committee and thematic <u>working groups</u> led by members drive delivery of the workplan.

2. Context, strategic considerations, rationale and justification

2.1 The development problem addressed - Cooling Challenge

Rapid growth in cooling is necessary for people's health nutrition and livelihoods: As the world warms, and as incomes and populations grow, demand for cooling is rapidly growing. Cooling is vital in a multiple of ways and in many different sectors e.g. health, agriculture and food systems, buildings and infrastructure. 1.2 billion people in Africa and Asia lack access to vital cooling services, disproportionately affecting women, and putting lives at risk from extreme heat, reducing farmers' incomes, driving food loss and waste, and hindering universal vaccine access. Hence, it is becoming critical for meeting several of the UN Sustainable Development Goals (SDGs).

Cooling growth is driving climate change and impeding the energy transition: UNEP Cool Coalition Global Cooling Watch 2023¹, which is a key result of the first phase funded by Danish MFA finds that on current growth trends, cooling equipment represents one fifth of total electricity consumption today and is expected to more than double by 2050. Greenhouse gas emissions (GHG) from power consumption will increase, alongside leakage of refrigerant gases, most of which have a much higher global warming potential than carbon dioxide, to 6.1 billion tons of carbon dioxide equivalent ($CO_{2}e$) in 2050, equivalent, more than 10 per cent of global projected emissions that year² Without action for 'green the cooling' the growing demand will lead to increase GHG as much is based on fossil fuels and produced inefficiently.

This growth also has impact on infrastructure and prices, as it in many countries will strain electricity grids and inefficient equipment will also result in high electricity bills for end users, particularly in Africa and South Asia, where the fastest growth is predicted.

Meeting growing cooling demand sustainably is a huge challenge but also an equally big opportunity to work in an integrated way in achieving the targets to protect people, prosperity and the planet. Sustainable cooling refers to actions across all cooling sectors and applications that move towards net zero emissions by 2050 such as through passive cooling, increased efficiency, and low – Global Warming Potential (GWP) refrigerants. According to the UNEP Cool Coalition Global Cooling Watch 2023, cooling measures to improve efficiency and passive cooling, and a phase down of climate warming gases used in cooling equipment, could reduce predicted 2050 cooling emissions by 60 per cent– around 3.8 billion tons of CO2e. Following these measures, would also make it possible for an additional 3.5 billion people to benefit from refrigerators, air conditioners or passive cooling by 2050, save USD 22 trillion equivalent to 158 trillion DKK for end-users and the power sector, and reduce global peak load demand by between 1.5 and 2 terawatts, which is almost double the EU's total generation capacity today. If rapid grid decarbonization were added to these actions, predicted 2050 emissions could be reduced by 96 per cent.

2.2 Brief outline of past results and lessons learned

The Coalition has made significant progress in achieving its initial objective to mobilize governments and industry to commit to take a comprehensive approach to action on cooling. In

¹ The <u>UNEP Cool Coalition Report: Global Cooling Watch 2023: Keeping it Chill: How to meet Cooling Demand, while</u> <u>cutting emissions</u>. Funded by Danida MFA, CONCITO and ClimateWorks Foundation

² UNEP 2023

late 2022, the COP28 United Arab Emirates (UAE) Presidency asked the Cool Coalition to become its <u>main delivery partner</u> on cooling in a continuing arrangement whereby the Cool Coalition would serve as the secretariat for the outcomes of this collaboration. UNEP Cool Coalition and the COP28 UAE Presidency developed and launched the <u>Global Cooling Pledge</u> at COP28 in Dubai. The Global Cooling Pledge marks the world's first collective effort to improve access, energy efficiency, and reduce emissions from the sector. To date, **70 governments have joined the Pledge by process of note verbale to UNEP and the UAE Foreign Ministry and over 50 private sector, financial institutions, and international organizations committed to support implementation of the Pledge. The UAE and Pledge contact group have agreed that the Cool Coalition secretariat will serve as the secretariat for the Global Cooling Pledge.**

Sabin Basnyat, Financial institutions Manager, Green Climate Fund: "Joining the Coalition has been one of the best decisions that the GCF has made so far: it shifted the way we look at cooling projects and energy efficiency as a whole. It helped bring the World Bank - Green Climate Fund Cooling Facility together: conversation started within the Cool Coalition and led to the development of a fully-fledged USD700 million facility. We are really looking forward to continuing this partnership going forward." - The Pledge targets were underpinned by the science and modelling in UNEP Cool **Coalition's** new 'Global Cooling Watch **Report:** Keeping it Chill: how to meet cooling demands while cutting emissions' which was funded in part by the Danish

MFA. The report, launched on December 5, 2023 at COP28, marks the first assessment to measure total global cooling emissions and development of a policy baseline to track progress and provides recommendations on how to get on a pathway to cut over 60 pct. of emissions from cooling. The report recommends that to deliver the benefits from sustainable cooling, governments must introduce policies that support integrated action across three areas: passive cooling, energy efficiency, and faster refrigerant phase-down. The report documents that only 53 countries to date (27 pct.) have established regulations or regulatory frameworks to enable action across the three key areas recommended to get on a pathway to cut emissions by over 60 pct.

The seed funding supporting the Cool Coalition that Danish MFA provided **has been instrumental in mainstreaming sustainable cooling,** which has long been a blind spot in global climate change discourse. It has created awareness of the need for sustainable cooling, primarily through knowledge development, collating a network of first movers and interested stakeholders and extensive and multi-level outreach. This has brought out knowledge and data points on the size of the challenge, its impact, potential ways to address barriers and challenges, and ways forward, and has also impacted investments and policy attention globally. While data on the latter is hard to size, we can assert that the number of governments and philanthropies engaging in cooling has grown substantially over the last years.

The Cool Coalition has earmarked strategies noted in this proposal and requested Danish MFA support to continue its work to increase action from actors, and draws on key lessons from our previous work:

The establishment of a secretariat hosted by UNEP has played a crucial role in organizing and coordinating the actions which have led to progress. This includes the cooling action plan methodology, linking food cold chains and climate, heat action and cooling in cities, which allowed these themes to find resonance in projects and commitments across organizations. It was also the secretariat which organized the pledge drafting, consultations, technical committee, contact group and membership coordination that enabled the development of a global cooling pledge with buy in across the cooling community, industry and governments. Seed funding from Denmark has been critical, allowing UNEP

to leverage co-finance for the Secretariat in the form of staff time and technical capacity. Long-term multi-year funding solutions are still needed to maintain and expand core functionalities, particularly with the growth in country membership and added responsibility to act as a secretariat for the Global Cooling Pledge.

The ability to contribute to mainstreaming sustainable cooling was a result of engagement at various levels of government, and across different stakeholder bases including industry. Coordination of stakeholders and bringing together disparate activities in the cooling sector was key to strengthening the collective impact of the sector. In addition, the engagement with G20, COP Presidency, UNFCCC Secretariat and negotiation processes, and various bilateral relationships including with Denmark; was heavily supported by our lessons on the ground engaging with city, country and regional level implementation work.

To have countries make commitments to act on cooling, such as including cooling in their NDCs or committing to the Pledge policy targets, required building the confidence of decision makers that they can implement such commitments. The Coalition brought together the broad interests of the cooling community to jointly develop implementation tools, resources, and data that were credible, authoritative, and gave confidence to policymakers and regulators. Beyond tools and capacity building therein, the Coalition acted as a catalyst for early-stage 'proof-of-concept' activities in under-addressed and high-impact areas such as passive cooling demonstrators in Cambodia and India. But the scale of support required by developing countries to deliver on sustainable cooling is very high. Furthermore, extreme heat is only now getting properly considered as a major adaptation challenge that needs more investments. Accelerating efforts and support to countries is crucial given countries' ambitious net-zero targets but lack of clarity on how they will be delivered. Furthermore, many commitments and targets are conditional on global support.

A key lesson has been the benefit of creating the space for industry to compete to showcase their leadership on cooling and/or to contribute to collective ambitions in the cooling sector in a particular country. This has helped to move the private sector to action in the Cool Coalition. For example, the production of a report on who in industry had or had not joined the race to zero followed by closed door private sector roundtables to share between private sector stakeholders how or why they had been motivated to do so, immediately led to at least 14 companies to join the race. Similarly, the Coalition had a few industry members commit to phase down refrigerants on an earlier timeline than other industry members, which then encouraged others to do so. Such pacts or collective actions were best tied with significant outreach and dissemination. In addition, the private sector was keen to engage or 'step up' when it was in tandem with country implementation opportunities. UNEP cannot give preference to any one company but provided a neutral platform for technical exchange between several industries and a country during implementation and this also helped to raise ambition of industry.

These lessons were instrumental in bringing forth the outcomes anticipated based on Danish MFA support. The membership and partnerships, centered around the Secretariat, in collaboration brought forth several key publications, knowledge resources, tools and platforms. These were based on brainstorming and collaborations across a diverse set of the Cool Coaltion membership base through the working groups that the Secretariat established and facilitated. Such a working mechanism also ensured that there was no duplication in effort, rather coordinated alignment in highlighting key issues in sustainable cooling and generate momentum towards it.

The Coalition has therefore already developed the knowledge and information base to mainstream political action on cooling: the 2023 Cooling Watch Report and the Global Cooling Pledge that have been noted above.

2.3 Main partners, actors and key stakeholders

The Cool Coalition 150 members comprises national governments, cities, private sector, finance, international organizations, academia, and civil society to facilitate knowledge exchange, advocacy, and joint action towards a rapid global transition to efficient and climate-friendly cooling by using a comprehensive approach. See the full list of members <u>at this link</u>. Within these members some are taking



Figure 1 Cool Coalition Working Groups

the lead to deliver on the Cool Coalition work plan and strategy through the Executive Committee which is comprised of the UK, Danfoss, SE4ALL, and ClimateWorks Foundation, others through the Steering Committee (e.g. UN ESCAP, CONCITO, EBRD, C40, Ozone Secretariat, IEA) Technical Committee (Oxford University, Cairo University, LBNL etc). and Working Groups.

Cool Coalition will largely drive action to deliver on its workplan through working groups. These working groups are chaired by the membership, while the secretariat provides support. When they complete their mission, they are then dormant. Figure 1 shows the different working groups which are currently operational and will be added such as on Passive Cooling, NDCs, Data, Pledge Implementation, and Pledge Advisory (Contact Group) to support the delivery of the updated workplan of the Cool Coalition in alignment with the activities in this document.

The Secretariat plays an active role in ensuring that key stake holders are present in the working groups to ensure progress – this implies the right level of attendance to drive processes forward, the right mix of governments, industry, financial bodies, universities think tanks etc. as well as the right technological and innovative skills. To support this work the secretariat going forward will develop a partner-analysis of present and potential future partners and their importance for the Coalition and their interest in supporting the Coalition. This analysis will be used to prioritize the work of the Coalition focussing on the partners that can bring most value to reaching the objectives of the Coalition.

There are also other initiatives to address the cooling challenges (As shown in the table below). UNEP Cool Coalitions strength is its comprehensive approach addressing both the Paris Agreement, the SDGs and the Montreal Protocol / Kigali. Cooperation with these other initiatives will be ensured to minimize the risk of overlap.

Figure 2: Cooling initiatives

	UNEP's Cool Coalition	Cool Hub of the Climate and Clean Air Coalition (CCAC)	Rocky Mountain Institute's (RMI) Global Cooling Prize	SEforALL's Cooling for ALL initiative
Focus	'Comprehensive'	Short Lived Climate Pollutants (HFCs)	Room air condition	"protect"
Tools and approaches	Global Climate Watch, National Cooling Action Plan methodology, Global Cooling Pledge, working groups.	Financial resources to partners to implement focused on HFC phase down coupled with efficiency, knowledge products.	Financial support to SMEs who have innovated to create residential AC s that are five times more efficient. (This is programme is largely dormant.)	Chilling Prospects Report, capacity building, events, TA (small scale) focused on off grid and access angle.
Stakeholders	All	All	Private Sector	Countries, cities
Main donor partners	Danish MFA, ClimateWorks Foundation, SDC.	Foundations, USA, SDC, Netherlands	USA, foundations (e.g. ClimateWorks etc.)	Danish MFA, ClimateWorks Foundation, Austria

2.4 Strategic framework – Alignment and synergies

The initiative is strongly in line with the Danish Strategy for Development Cooperation *The World We Share*, especially the strategic area "The fight for climate, nature and environment" where Denmark has set as objectives to *Assume international leadership within reductions, green transition, and access to clean energy* and *Increase mobilization of finance and promote green Danish solutions within climate, nature and the environment.*³ The Danish strategy has a strong focus on *strengthening action to support climate change adaptation, nature, the environment and resilience in the poorest and most vulnerable countries* and under this focus area, there is potentially a link to the Cool Coalition as Denmark will *Contribute to ensuring climate-smart infrastructure. Focus on water supply and sanitation in rapidly growing urban centers affected by climate change.*

It is also aligned with the Danish Global Climate Action Strategy 'A Green and Sustainable World' which sets out how Denmark will work to Increase global climate ambition, Reduce global greenhouse gas emissions, Shift financial flows to green, Cooperate with the private sector on green solutions while also Strengthen focus on adaptation and sustainable development.

The support is relevant for Denmark's support to green transformation of agri-food systems agriand food production, business⁴ and food security especially in relation to cold chains. There are potential synergies with the Danish Market Development Programme (DMDP). The overall purpose of

³ THE WORLD WE SHARE Denmark's Strategy for Development Cooperation

⁴ How to Note: Green transformation of agri-food systems – agri- and food production, business, Ministry of Foreign Affairs of Denmark June 2023

a DMDP project is to catalyze local economic activity, market development and unleash business potential leading to employment and income opportunities in the Danish priority countries contributing primarily to Sustainable Development Goals 8 and 17. Under DMDP, Denmark is supporting e.g. Solar for Cooling: Energy and refrigeration solutions for small-scale fishing in Kenya (DKK 5 million) and The Fresh Fruit Nexus: Sustainable Livelihoods for Refugees and Host Farmers in Northern Uganda (DKK 11,5 million). Danish expertise in energy systems and green technologies as well as energy efficiency, agriculture and food systems are where Danish companies potentially have a role to play. Danfoss is already a strong partner and member of the executive committee of the Cool Coalition.

2.5 Justification

The 2023 Cooling Watch Report has documented the cooling challenge and quantified for the first time what is takes to meeting the net zero goal in the area of cooling. As mentioned, only 53 countries had adopted regulations/regulatory frameworks to address energy efficiency, high-GWP gases and building energy codes. Amplified, accelerated, and ambitious action on all three fronts is necessary to achieve a near-zero emissions scenario for the cooling sector. The creation of the Cool Coalition has been effective on addressing the challenge of reducing GHG emissions from cooling as detailed above in section 2.5 results and lessons.

The continued support from Danish MFA will contribute to consolidating the Cool Coalition especially through providing support for core functions of the Secretariat in relation to coordination, working group meeting, the daily governance, monitoring and reporting. The DKK 15 million will in this phase also contribute to outputs related to the development of knowledge products and to pilot in the implementation of the NCAPs and the integration of cooling in NDCs, (see more below).

As shown in section 2.4 this is fully in line with the Danish *Global Climate Action Strategy 'A Green and Sustainable World*' and the Danish strategy for development assistance *The World We Share*. Furthermore, the support will underpin "Africa's Century" which i.a. aims to strengthen cool chains in Africa

The support will first and foremost contribute to meeting the SDG on climate change by contributing to reducing GHG emissions from the cooling sector, better adaptation and resilience to climate change, access to reliable, affordable and clean cooling services. The project contributes especially to target 13.2: Integrate climate change measures into national policies, strategies and planning and target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning. Due to its integrated approached, the project also contributes indirectly to achieving the SDG 2 through improved agricultural sector & reduction in food loss, SDG 3 through improved health and safety, SDG 7 through improved rate of energy efficiency and higher shares of RE. Accelerated decarbonization of power & refrigerated transport sectors. SDG 8 through contributing to creation of jobs and promotion of innovation by building capacity and transferring international expertise on technologies that are new for a country, SDG 9 by contributing to build resilient infrastructure, promote sustainable industrialization and foster innovation, SDG 11 by contributing to mitigation of urban heat island affect through nature-based solutions, 12 and SDG 17 by demonstrating how complex, cross-sectoral partnership and actions are needed to tackle climate change and SDGs.

Overall, the core support to the Cool Coalition Secretariat is instrumental in giving the Global Cooling Pledge the means and seriousness to enable countries to meet commitments on sustainable cooling and support extensive levels of leverage across the sector and stakeholders.

3. Project objective and intervention strategy

The development objective of the cooperation between Denmark and the Cool Coalition is to

support countries and industry to take comprehensive action to reduce energy demand and cut emissions from the cooling sector by over 60 pct. by 2050 while providing universal access to sustainable cooling and protecting vulnerable groups from heat stress in line with the Paris Agreement, the SDGs, the Kigali Amendment and the Global Cooling Pledge.

To achieve its objective, the Cool Coalition will be planned and implement activities in a transparent, inclusive and participatory way with members, pledge signatory countries, strategic partners and other relevant stakeholders focusing on the four interlinked streams of work:

Component 1: Establish Cool Hub to Coordinate Partnerships and Support Knowledge, Advisory, and Advocacy

Since partners <u>launched of the Cool Coalition</u> in 2019 as a global initiative to advocate for and take comprehensive action on cooling, UNEP set up Secretariat with support from Denmark,. The secretariat has worked with members to adopt a <u>theory of change</u> and a <u>governance structure</u> which has since been operationalized. The governance structure has resulted in greater transparency and engagement from the membership to drive forward knowledge, advisory and advocacy activities.

Looking ahead the secretariat will focus on monitoring and leveraging partnerships to enable the implementation of the Cooling Pledge and Global Cooling Watch including through the governance bodies, particularly the working groups and the creation of new ones as needed to support the development of the pledge strategy; pledge implementation; and data/tracking. Tracking of progress will be done through deepening the data collection survey and modelling infrastructure created for the 2023 Global Cooling Watch, reported through a dashboard and a ministerial report back at subsequent COPs.

Component 2: Activating the knowledge base.

The second workstream is about collecting existing tools and guidelines and developing partners tools and standardized guidelines and tracking progress on efficient, climate friendly cooling to disseminate knowledge globally with the objective of increasing governments and industry access to actionable knowledge.

Moving forward the focus will be to address any remaining gaps that remain in policy guidelines required to implement a 'comprehensive approach' and to develop a policy toolkit that consolidates the different guidance and draws on the Global Cooling Watch to help governments identify what policy options are available, how to apply them, and who can support them. The policy toolkit will be developed with the Ozone Secretariat and various members will contribute. The new guidelines will be developed with co-financing including

- planning tool for nature for cool cities probably with CONCITO and the GEF,
- model regulations for passive cooling in buildings drawing on Danish expertise with ESCAP, financing roadmap guidelines with IFC/WBG,
- cooling in the NDCs guidelines with GiZ and ClimateWorks.

Where co-finance is identified a second edition of the Global Cooling Watch will be prepared, reporting on progress, with a deep dive on the specific sector of cold chain.

Component 3: Advisory and Demonstration Support Activities on under-addressed or high impact areas The Cool Coalition acts as a catalyst for early-stage 'proof-of-concept' activities in under-addressed and high-impact areas, the results of which are used to inform policy and/or are mainstreamed into Member programs.

In the next two years there will be a greater focus on vertical rather than horizontal implementation where the secretariat is envisaging going deeper in one or two countries to show how an NCAP can be operationalized, linked to the NDC and financed for implementation alongside partners. This will build on the Global Cooling Watch, guidelines and tools developed in the last years. Further emphasis will be on mainstreaming the proof-of-concept activities in partner approaches to achieve greater scale such as providing technical support from the Secretariat to ESCAP, UNDP, IFC who will then undertake the data collection, implementation, and finance NCAPs/NDCs on the ground and in the future.

Component 4: Scale-up Outreach and Advocacy

The Cool Coalition engages in key political processes to highlight the importance of cooling for climate mitigation, adaptation, resilience, and the sustainable development goals, raise the level of ambition and mobilize political action.

The next years focus will be on maintaining cooling high on the political agenda in the UNFCCC process, including the Troika agenda for COP30, and in the G7/G20 process, and engagement of Cool Champions – leaders who can help raise awareness and mobilize action including more signatories using their political platform. There will also be a focus on improving the reach of the website and social media, access to the knowledge products, as well creation of advocacy products, media stories and fact sheets drawing from the Global Cooling Watch such as on why cooling? Why join the Cooling Pledge? etc.

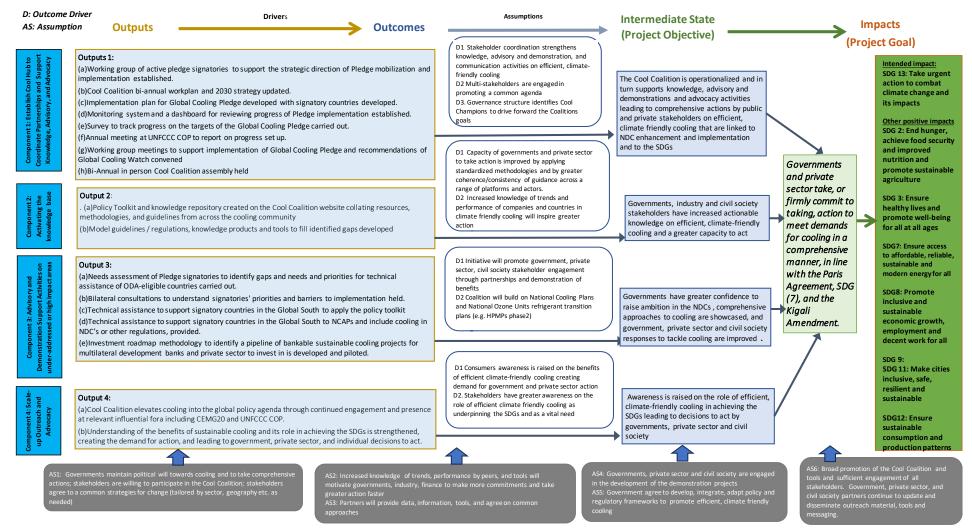
The project support for the 2024-26 period intends to underpin the progress achieved so far in terms of building the coalition, monitoring progress on the pledges and with an increased emphasis on supporting "proof of concept" as proposed in component 3.

4. Theory of change

The Cool Coalition Theory of change is presented in figure 1. Based on the assumptions and drivers, all components of this project will collectively result in governments being on track to globally reduce energy demand and cut emissions from the cooling sector by over 60 pct. by 2050, while providing universal access to sustainable cooling to protect vulnerable groups from heat in line with the Paris Agreement, SDGs, the Kigali Amendment, and the Global Cooling Pledge.

The logic chain assumes that governments maintain political will towards cooling and to take comprehensive actions – as signaled e.g. by the signing of the Global Cooling Pledge. It also assumes stakeholders are willing to participate in the Cool Coalition and that stakeholders agree to a common strategy for change (tailored by sector, geography etc. as needed). Furthermore, the Theory of Change also assumes that increased evidence from applied action and demonstrations, knowledge of trends, performance by peers, and tools will motivate governments, industry, and finance to make more commitments and take greater action faster.

Figure 1 Cool Coalition Theory of Change



5. Summary of Results Framework

Result Framework below is based on the Cool Coalition theory of change as approved by the Cool coalition members in 2019. The Cool Coalition Secretariat plans to propose to the Steering and Executive Committees in 2024 to update the theory of change to take into account progress achieved so far and reflect on what more needs to be done to achieve the objective. The results framework has been updated to reflect the progress so far and built on these achievements while providing new outputs to be achieved in the project period. The Danish support contributes to the four outcomes defined for the four components and to the overall objective by financing specific outputs listed below.

Project title	Denmark's support to Cool Coalition 2024-2026
Project objective	Governments and private sector take, or firmly commit to taking, action to meet demands for cooling in a comprehensive manner ⁵ , in line with the Paris Agreement, SDG (7), and the Kigali Amendment.
Overall outcome indicators	 Number of national and sub-national government implementation working towards implementing the Pledge and/or the recommendations of the Global Cooling Watch (including through reporting on progress and/or participation in trainings for application of policy toolkit and/or participation in the contact group and/or pledge implementation working group). Number of countries integrating cooling in the NDCs and/or a national regulatory framework and/or developing a NCAP. Co-financing generated to support Cool Coalition Secretariat and/or implementation of the Global Cooling Pledge or Global Cooling Watch recommendations. Number of national governments providing a regulatory or enabling environment that support implementation of passive cooling, higher energy efficiency and fast high-GWP refrigerant phase down in cooling equipment. Number of countries and subnational actors signed up to Cool Coalition capacity-building activities as a step towards Implementation of the Pledge and/or Global Cooling Watch recommendations.
Baseline Year	 No national or sub-national countries working towards implementation of Global Cooling Pledge. No countries or cities receiving systematic and comprehensive training by the cooling community aligned with the Global Cooling Watch pathway to near zero emissions and/or the Global Cooling Pledge.

⁵ The Global Cooling Watch has established the scientific basis which has for the first time quantified what comprehensive action means for the GHG impact on cooling. It is on this basis that the Global Cooling Pledge has been formulated for the signatories to aim "*at least 68pct. globally relative to 2022 levels by 2050, consistent with limiting global average temperature rise to 1.5^{\circ} C and in line with reaching global net-zero emissions targets with significant progress and expansion of access to sustainable cooling by 2030."*

Target	Year	 55 countries have committed to reduce their cooling emissions in either their enhanced NDCs or long-term climate plans under the Paris Agreement. 53 national governments providing a regulatory or enabling environment that support passive cooling, energy efficiency and refrigerant phase down in cooling equipment. 30 countries have adopted a National Cooling Action Plan. 16 cities are working towards comprehensive urban cool/heat planning and/or the use of nature at the local level for passive cooling. 2 million USD generated to support Cool Coalition Secretariat and/or Global Cooling Pledge signatories for implementation. 2025 At least 20 countries are participating in the implementation of the pledge implementation and/or global cooling watch recommendations. At least 5 additional countries have committed to acting on sustainable cooling in either their enhanced NDCs or long-term climate plans under the Paris Agreement or through the development of a comprehensive National Cooling Action Plan. At least 5 additional national or sub-national governments are providing a regulatory or enabling environment that support passive cooling a regulatory or enabling environment that support passive cooling a regulatory or enabling environment that support passive cooling equipment.
		implementation.
Outcome 1	blish Cool Hi	ub to Coordinate Partnerships and Support Knowledge, Advisory, and Advocacy The Cool Coalition is operationalized and in turn supports knowledge, advisory
		and demonstrations and advocacy activities leading to comprehensive actions by public and private stakeholders on efficient, climate friendly cooling that are linked to NDC enhancement and implementation and to the SDGs.
Outputs for Outcom	ne 1	 (a) Working group of active pledge signatories⁶ to support the strategic direction of Pledge mobilization and implementation established. (b) Cool Coalition bi-annual workplan and 2030 strategy updated. (c) Implementation plan for Global Cooling Pledge developed with signatory countries developed. (d) Monitoring system and a dashboard for reviewing progress of Pledge implementation established. (e) Survey to track progress on the targets of the Global Cooling Pledge carried out. (f) Annual meeting at UNFCCC COP to report on progress set up. (g) Working group meetings to support implementation of Global Cooling Pledge and recommendations of Global Cooling Watch convened. (h) Bi-Annual in person Cool Coalition assembly held.
Output indicator		 (a) Progress on Global Cooling Pledge Implementation Plan. (b) Secretariat resources are strengthened. (c) Number of working groups convened to support implementation of Global Cooling Pledge and recommendations of Global Cooling Watch. (d) Annual progress report and Global Cooling Pledge monitoring mechanism
		developed, and reporting linked to UNFCCC COP processes.

 $^{\rm 6}$ Also known as the 'contact group' in the framework of the Pledge negotiations.

D 1	3.7	2022		
Baseline	Year	2023	 (a) Secretariat and website are operational. (b) Global Cooling Pledge launched and 67 countries signed. (c) 5 Cool Coalition Working Groups operational. (d) UNEP Global Cooling Watch Report Launched at COP28 that provides for the first-time modelling of the totality of the cooling sector and global survey of policies at COP28. 	
Annual target	Year 1	2024	 (a) Strengthened secretariat with greater staff stability. (b) Working group established to support the strategic direction of Pledge mobilization and implementation. (c) Implementation plan for Global Cooling Pledge developed with signatory countries and sub-national governments adopted by "Contact Group". (d) Two additional working group convened for data and tracking and for providing support on implementation of Global Cooling Pledge and recommendations of Global Cooling Watch. (e) Global cooling policy tracker and dashboard framework developed for all countries and progress reported through an annual meeting at UNFCCC COP. 	
Target	Year 2	2025	 (a) Strengthened secretariat with greater staff stability. (b) Contact Group to support the strategic direction of Pledge mobilization and implementation convened at least once every quarter. (c) Eight working groups convened providing support on various aspects in support of implementing the Global Cooling Pledge and recommendations of Global Cooling Watch. (d) Global Cooling Pledge monitored; dashboard updated with annual results on progress. (e) Global Cooling Watch modelling and data updated and published for launch at COP30 incorporating progress on the Global Cooling Pledge. (f) A new edition of the Global Cooling Watch for COP30, with a "deep-dive" on the subject area of cold chain for food security and health to address gaps in data and policy⁷ 	
Component 2: Act	ivating the	Knowledge	e Base	
Outcome 2	ivating the	Governm	ents, industry and civil society stakeholders have increased le knowledge on efficient, climate-friendly cooling and a greater	
Outputs for outcome 2		 (a) Policy Toolkit and knowledge repository created on the Cool Coalitic website collating resources, methodologies, and guidelines from across th cooling community. (b) Model guidelines / regulations, knowledge products and tools to f identified gaps developed. 		
Output indicators		(b) Num	y toolkit and knowledge repository created. ber of model guidelines, regulations, knowledge products and tools loped.	
Baseline	Year	2023	 (a) Limited tools/model guidance tailored to developing countries and cities in passive cooling, unlocking finance, district cooling etc. 	

⁷ This is dependent on co-finance.

A 1.	X 7 4	2024		
Annual target	Year 1 Year 2	 2024 (a) Survey to all Cool Coalition members on their tools, guidelines and activities related to Pledge commitments. (b) Policy toolkit and associated knowledge repository developed. (c) At least 1 methodology, guideline or tool on financing action on cooling with a development bank is developed and published. (d) Guidelines for integration of cooling into NDC developed. 		
Target		2025 (a) Model regulations on passive cooling focused on building energy codes developed.		
-	dvisory and I	Demonstration Support Activities on under-addressed or high impact		
areas		Compresents have exected as off-denses to asias exclution in the NDCs		
Outcome 3		Governments have greater confidence to raise ambition in the NDCs, comprehensive approaches to cooling are showcased, and government, private sector and civil society responses to tackle cooling are improved.		
Outputs for Outcome 3		 (a) Needs assessment of Pledge signatories to identify gaps and needs and priorities for technical assistance of ODA-eligible countries carried out. (b) Bilateral consultations to understand signatories' priorities and barriers to implementation held. (c) Technical assistance to support signatory countries in the Global South to apply the policy toolkit (d) Technical assistance to support signatory countries in the Global South to NCAPs and include cooling in NDC's or other regulations, provided. (e) Investment roadmap methodology to identify a pipeline of bankable sustainable cooling projects for multilateral development banks and private sector to invest in is developed and piloted. 		
Output indicators		 (a) Number of proposals to donors and philanthropies submitted based on the needs assessment. (b) Amount of finance leveraged that can support countries and cities to implement commitments to the Global Cooling Pledge and recommendations of the UNEP Global Cooling Watch. (c) Number of NCAPs developed and NDCs or national regulations that incorporate cooling supported by Cool Coalition and its partners. (d) Number of investment pipelines assessments developed. (e) Number of capacity building workshops provided on the policy toolkit to countries. (f) Number of developing countries and cities participating in capacity building and knowledge exchange workshops organized to train on the tools and policy guidelines developed by the Cool Coalition. 		
Baseline	Year	 2023 (a) No proposals to donors and philanthropies submitted. (b) No finance leveraged that can support countries and cities to implement commitments to the Global Cooling Pledge and recommendations of the UNEP Global Cooling Watch. (c) 10 NCAPs developed by Cool Coalition and its partners. (d) No investment pipelines assessments developed. (e) No trainings provided on policy toolkit as it is not yet created 		
Annual target	Year 1	 2024 (a) Two proposals to donors and philanthropies submitted. (b) USD 1 million leveraged to support countries and cities to implement commitments to the Global Cooling Pledge and recommendations of the UNEP Global Cooling Watch. (c) 1 NCAPs developed by Cool Coalition secretariat in Africa and support provided for NDC integration. 		

		(d) 2 NCAPs developed by Cool Coalition members with support			
		of the Secretariat (e) At least two capacity building workshops delivering training on			
		the policy tool-kit			
		(f) 30 countries and/or cities participating in trainings/workshop.			
Target	Year 2	2025 (a) 2 additional proposals to donors and philanthropies submitted.			
		(b) USD 2 million leveraged that can support countries and cities			
		to implement commitments to the Global Cooling Pledge and			
		recommendations of the UNEP Global Cooling Watch. (c) 1 revised NCAP with expanded scope developed by the Cool			
		Coalition secretariat and support provided for NDC			
		integration.			
		(d) Additional 2 NCAPs developed by Cool Coalition members			
		with support of the Secretariat			
		(e) 1 additional investment roadmap developed.			
		(f) Two capacity building workshops hosted			
		(g) 30 countries and/or cities participating in trainings/workshops.			
Component 4: S	cale-up Outr	each and Advocacy			
Outcome 4		Awareness is raised on the role of efficient, climate-friendly cooling in			
		achieving the SDGs leading to decisions to act by governments, private			
		sector and civil society.			
Outputs for Outo	come 4	(a) Cool Coalition elevates cooling into the global policy agenda through			
		continued engagement and presence at relevant influential fora including CEMG20 and UNFCCC COP.			
		(b) Understanding of the benefits of sustainable cooling and its role in			
		achieving the SDGs is strengthened, creating the demand for action, and			
		leading to government, private sector, and individual decisions to act.			
Output indicator		(a) Number of ministerial roundtables and high-level roundtables organized			
		to support the G20, Montreal Protocol or UNFCCC processes with associated communication and advocacy products to promote sustainable			
		cooling.			
		(b) Number of international events and meetings in which Cool Coalition is			
		represented and/or plays a convening role.			
		(c) Number of Cool Champions engaged and supporting outreach.			
Decelies	Veen	Number of visitors or downloads from the Cool Coalition website.			
Baseline	Year	2023 Website developed, 30+ events held in 2023, cooling is highly visible at G20 and COP28 and the latter was characterized the "Cool COP".			
Annual target	Year 1	2024 (a) Advocacy and Communication working group strategy for			
010		2024/25 is developed and implemented			
		(b) Bi-annual newsletter designed and disseminated			
		(c) At least 2 High-level Roundtables/Events with representatives			
		of developing countries organized with associated			
		communication and advocacy products (d) Number of visits on website			
		(d) Funder of visits of website (e) Cool Champions engaged in at least two events.			
		(f) At least two fact sheets developed building on the Global			
		Cooling Watch e.g. Why Cooling? What is the Global Cooling Pledge?			
	X	Benefits of joining the Global Cooling Pledge?).			
Target	Year 2	2025 (a) Demonstrable increase in international coverage and awareness			
		of the importance of sustainable cooling drawing on the Global Cooling Watch.			
		Cooming watch.			

 (b) Bi-annual newsletter designed and disseminated. (c) 2 High-level Roundtables/Event with representatives of developing countries organized with associated communication and advocacy products. (d) Visits to the website or download of products
(e) 1 factsheet developed.

6. Inputs / Budget

Overall Budget	DKK
	Million
Component 1: Cool Coalition Hub	3.3
Component 2: Advancing the Knowledge base	4.4
Component 3: Technical Assistance and unlocking finance	3.7
Component 4: Advocacy and outreach	1.7
UN Project Support Cost (13%) and UN Levy (1 pct.)	1.9
Total	15.0

The Danish support can only be spent on activities eligible as Official Development Assistance as defined by the Organisation for Economic Co-Operation (OECD) Development Assistance Committee (DAC).

Beyond the limits defined in the Financial Management Guideline (10 pct.), funds cannot be transferred between the budget lines without prior approval from MFA. Expenditures beyond the total grant cannot be reimbursed to the Cool Coalition through UNEP.

UNEP charge a Project Support Cost (PSC) of 13 pct. plus the 1 pct. UN Levy. The level of 13 pct. is in accordance with the decisions and directives of UNEP's Governing Council and covers the PSC of UNEP administering the contribution. The 1 pct. UN Levy is pursuant to UN General Assembly Resolution 72/279 of 31 May 2018 and is to help fund the UN Resident Coordinator System. This is the same Project Support Costs and Levy as per the Government of Denmark's previous contribution to the Cool Coalition as described in Article VI of the corresponding donor agreement.

8. Institutional and Management arrangement

8.1. Project Management

The United Nations Environment Programme (UNEP), as the host of the Cool Coalition, will serve as the Implementing Agency for this project. As such, UNEP will be accountable to Danish MFA for the disbursement of funds and the achievement of project goals in line with the agreed Results Framework. UNEP will manage the project budget and daily activities of the project to ensure proper use of Danish MFA resources in line with ODA and DAC requirements, adherence to environmental and social safeguards, and all regular and required reporting.

The project will be managed by the Cool Coalition secretariat at UNEP which comprise a Head of Secretariat, project manager, a project support staff, and a capacity building coordinator. The Head of Secretariat will (i) provide leadership and set the strategic direction for the Cool Coalition with partners, (ii) lead and supervise, in consultation with the Coalition's members, the preparation of the Coalition workplan and budget that delivers on the Coalition's strategic priorities and donor agreements, (iii) oversee a team of professionals who support Secretariat functions including supporting the delivery of project implementation activities, (iv) lead quality assurance processes, (v) develop partnerships to unlock co-finance and investments, (vi) undertake political advocacy, and (vii) report to Danish MFA and Coalitions governance on project delivery and impact.

The UNEP Project Manager⁸ will: (i) manage and provide technical backstopping to the project implementation activities; (ii) facilitate and/or oversee working groups delivery plans with partners and ensure delivery of outputs aligned to workplan; (iii) draft and approve the Terms of Reference for consultants and manage sub-contracts; (iv) coordinate communications with partners, steering committee and executive committee including preparation of updates, inputs, consultations.

The Head of Secretariat and Project Coordinator will be supported by a project support staff who will be responsible for tracking and reporting on expenditure in line with approved budgets and work-plans; tracking and reporting on deliverables in line with approved budgets and work-plans; processing contracts, travels, and implementation agreements.

Within UNEP, the Secretariat will also be supported by a wider team including the UNEP Advocacy and Communications Lead on Climate Change, the Cities Unit team working on nature-based solutions, the Global Alliance for Buildings and Construction on building codes, United for Efficiency activities on super-efficient appliances, UNEP Financial Initiative⁹ and the finance unit on unlocking investment, CCAC on NCAPs, UNEP Copenhagen Climate Center, Ozone Secretariat and the Multilateral Fund secretariat on Pledge Implementation monitoring and knowledge products.

The Secretariat will also be supported by international and national partners taking the lead in the implementation of the specific technical assistance components of the project. UNEP will procure the required expert services and other project inputs and administer the required sub-contracts with partnering organizations.

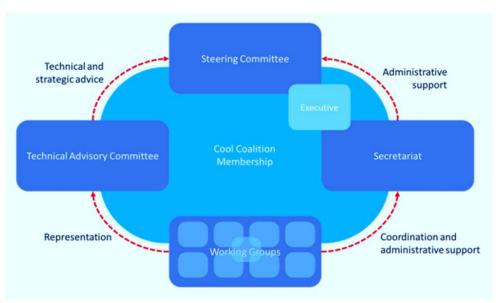


Figure 3: The Cool Coalition management set up

⁸ The UNEP Project Manager will be employed once the Danish support is in place

⁹ Taskforce on Nature-related Financial Disclosures

8.2. Monitoring, learning, reporting and disseminating results

Monitoring will take place in relation to elaboration of the annual project report which will capture the progression of expected outcomes, outputs and activities and the Steering Committee will reflect on the progress and lessons. The learning will get reflected in the updated biannual workplan and strategy and TOC and governance as needed. Denmark is a member of the Steering Committee.

The annual project report providing status as defined in the result framework shall be submitted including financial reporting to MFA no later than 31 March each year during implementation. The first submission will be 31 March 2025.

Dissemination of results is an integrated part of the work of the secretariat especially in Component 4 on advocacy and outreach. It is therefore an ongoing activity with its set of outputs, indicators and targets.

A project completion report providing status on the progression of expected outcomes, outputs and activities and defined in the result framework shall be submitted with the final financial reporting to MFA no later than 31 March 2027.

The MFA shall have the right to carry out any technical or financial supervision mission that is considered necessary to monitor the implementation of the project.

After the termination of the project support, the MFA reserves the right to carry out evaluations in accordance with this article.

8.3 Quality Assurance

There are two formalized committees that oversee Cool Coalition activities and provide an additional layer of quality assurance.

The Cool Coalition Steering Committee comprises members of the global cooling community who are responsible for overseeing the development of, approving, fostering, and tracking progress against the Work Plan and Strategy.

The Cool Coalition Technical Advisory Committee ensures that all Cool Coalition activities remain grounded in technical feasibility and achieve the requirements of broader transition to zero-carbon economies, the Cool Coalition will be further advised by a group of technical experts that assist the Secretariat in its task of both operational review and strategy setting for Cool Coalition activities. The Technical Advisory Committee meets biannually to directly hear Working Group updates, report to the Steering Committee on activity progress, and provide technical advice to the Steering Committee related to provision of its own guidance and on future program design issues, to ensure that strategic settings are grounded in technical feasibility, and conversely that the work of Working Groups remains enfranchised to the Cool Coalition's long-term strategy. For that purpose, Technical Advisory Committee Members are required to have scientific or other specialist professional credentials that qualify them for this role, as distinct from strategic involvement in the sustainable cooling activities of the respective Member organizations. Through its meetings, the Technical Advisory Committee gives guidance and feedback to Working Groups on the progress of their work against agreed outputs and provide an important coordination point and information dissemination role between the work of different Working Groups. This will include a review and endorsement function over Working Group activities and outputs including knowledge products and publications produced by Working Groups prior to their release, and provision of recommendations to the Steering Committee regarding the formation or dissolution of Working Groups.

8.4 Financial Management and Auditing

UNEP's Paris office has a Financial Management Officer who leads the administration and financial management of the project, has financial control on expenditures and ensures financial reporting. With respect to financial management, the donor agreement between UNEP and MFA, includes the following critical sections which are summarized here and further elaborated in the donor agreement:

- The contributions shall be made and transferred in Danish Kroner (DKK).
- The value of the payment, if made in a currency other than United States dollars, shall be determined by applying the United Nations operational rate of exchange in effect on the date of payment. UNEP shall acknowledge in writing receipt of contributions in Danish Kroner as well as the equivalent amount in US dollars at the rate of exchange applicable on the date of receipt of the contribution.
- UNEP shall receive and administer the payment in accordance with the regulations, rules and directives of UNEP.
- For agreements more than one year, (a) every year the status of progress, including the substantive and financial reports, for the duration of the Agreement will be provided (b) Within six months after the date of completion or termination of the Agreement, a final report summarizing activities and impact of activities as well as financial data. More frequent reporting can be agreed with the donor.
- The contribution shall be subject exclusively to the internal and external auditing procedures provided for in the financial regulations and rules. Should an Audit Report of the Board of Auditors of UNEP contain observations relevant to the contributions, such information shall be made available to the Donor.

8.5 Procurement

UNEP follows UN Financial Regulations and Rules and the UN Procurement Manual while selecting both profit and not for profit institutions and procuring their services. This is an international guideline for UN agencies. It is expected that there may be procurement and partnerships in the delivery of Component 3.

Not-for Profit organization

A not-for-profit organization, intending to work with UNEP, needs to register in a partner's portal first. Then due diligence process is followed and if approved, the organization is registered as a potential partner to UNEP. Direct award can be given to not-for-profit potential partner who are a) approved and registered in the partner's portal and b) if their mandates, visions and expertise matches with the required scope of work or terms of reference, through a Small-Scale Funding Agreement. However, a minimum of three proposals or quotations must be solicited and a justification must be given on why a specific partner is chosen over others

For-profit organization

A different and more comprehensive due-diligence process and reporting mechanism is followed for forprofit organizations. It is managed through a competitive bidding process. Some of UNEP's partners from the Cool Coalition are already registered in the partner's portal and thus it is easier to establish contract with them as no further due diligence of the organization is required. It will be a kind of direct attribution. However, analysis of the organization' relative strengths is required, and justification needs to be made on why a specific partner is chosen over others. Each subcontracted activity will have senior UNEP oversight in contract development and operation and will be combined with UNEP's in-house international and national technical experts to ensure outputs meet UNEP's rigorous quality standards, peer review, gender and human rights mainstreaming, and align to the project's outcomes and outputs. UNEP also uses its broad partnerships to ensure global best practices and review are brought to each deliverable.

8.6 Anti-corruption and fraud prevention

UNEP has a zero-tolerance approach to misconduct - including fraud and corruption involving its staff members, other United Nations personnel or third parties. "Zero tolerance" means that UNEP will pursue all allegations of fraudulent acts involving any individual or entity covered by the United Nations rules, administrative issuances, policies, and procedures. The regulations, appropriate administrative/disciplinary measures or contractual remedies will be applied if fraudulent acts are substantiated, in accordance with the United Nations procedures concerning prohibited conduct. The United Nations has established a dedicated framework on fraud and corruption in ST/IC/2016/25Anti-Fraud and Anti-Corruption Framework of the United Nations Secretariat (the "Framework"). The Framework promotes a culture of integrity and honesty within the Organisation by providing information to staff members on how to prevent, detect, deter, respond to and report on fraud and corruption.

UNEP has translated the Framework in the <u>Anti-Fraud and Anti-Corruption Guidelines (UNEP AFAC</u> <u>Guidelines)</u>, to strengthen UNEP's prevention and response to incidents of fraud and corruption.

Information about possible prohibited conduct may be brought to the attention of the Office of Internal Oversight Services (OIOS) Investigation hotline or the Executive Director (with a copy to OIOS). A formal report should be detailed enough to allow for a review of the report.

9 Risk Management

Program risks include organizational, reputational, political, technical, and financial risks. Risks for the project have been assessed and mitigation measures and responsible agencies are listed in annex 4. Risks will be monitored and managed primarily by the Cool Coalition Secretariat with overview from the Steering Committee. Risks will be reviewed and updated bi-annually and provided as part of the progress reporting. Funding is based only on Danish contributions. This is potentially a risk to the objective of the project if Danish support ceases before objectives are reached. Opportunities for other donors to contribute may have to be considered during project implementation.

10 Sustainability and exit

Sustainability of outputs and outcomes beyond the project duration has been an important consideration in the design of this project to ensure lasting project impact. The online platform in Component 2, will house all knowledge products and tools (i.e. best practices for technical content, lessons learned) developed by the project which means they will be free and accessible to download including following the project completion. The online platform will be in the frame of the Cool Coalition website, led by UNEP, to leverage the larger Cool Coalition membership of 30+ countries and 130 members to raise awareness on these solutions with national governments, financiers and developers.

It has furthermore been agreed that the foreseen ToC discussion should consider what success looks like and what it will take to bring the Cool Coalition to this stage. This will imply discussing new areas in need of a policy push and a timeline for these areas. It should also be considered how the follow-up of the Global Cooling Pledges can be integrated into overall reporting on emissions reductions rather than separate reporting.

11 Closure

Within six months after the date of completion or termination of the Agreement, a final report summarizing activities and impact of activities as well as certified and audited financial data will be provided to MFA by UNEP.

Annex 1: Context Analysis

1. Overall Development Challenges, Opportunities and Risks

There is an urgent need to reduce global CO2-emissions significantly in order to combat climate change and ensure sustainable development. Ensuring clean and efficient cooling is an important but often overlooked action area, which the Cool Coalition seeks to promote.

Cooling growth is driving climate change and impeding the energy transition. UNEP Cool Coalition Global Cooling Watch 2023¹, which is a key result of the first phase funded by Danish MFA finds that on current growth trends, cooling equipment represents one fifth of total electricity consumption today and is expected to more than double by 2050. Greenhouse gas emissions (GHG) from power consumption will increase, alongside leakage of refrigerant gases, most of which have a much higher global warming potential than carbon dioxide, to 6.1 billion tons of carbon dioxide equivalent (CO₂e) in 2050, equivalent, more than 10 per cent of global projected emissions that year² Without action for 'green the cooling' the growing demand will lead to increase GHG as much is based on fossil fuels and produced inefficiently.

This growth also has impact on infrastructure and prices, as it in many countries will strain electricity grids and inefficient equipment will also result in high electricity bills for end users, particularly in Africa and South Asia, where the fastest growth is predicted.

Cooling will drive peak electricity demand, especially in hot (developing) countries. By 2050, space cooling alone will consume as much electricity as China and India today. This does not include the demand for cold chain. Left unchecked, this cooling demand would consume much of the world's projected renewables capacity. With business as usual, direct and indirect emissions from air conditioning and refrigeration are projected to rise 90pct. from 2017 levels by 2050, driven by heat waves, population growth, urbanization, and a growing middle class.

As the world becomes warmer and hundreds of millions of people become able to afford their first air conditioner, unmanaged cooling growth could cause a surge in greenhouse gas emissions and hamper our ability to manage global warming. Most homes in hot countries have not yet purchased their first air conditioner. Air conditioning today is concentrated in a small number of countries, but air conditioner sales are rising rapidly in emerging and developing economies. By 2050, around 2/3 of the world's households could have an air conditioner. China, India and Indonesia will together account for half of the total number.

Today's unmet cooling needs extend well beyond cooling buildings into cold chains, mobility and industry. Looking at this wider range of uses, while ensuring full access to cooling to protect vulnerable people from the effects of heat extremes and broken cold chains could mean energy demand as high as 15,500TWh in 2050 – two thirds of today's global power demand – even if aggressive energy efficiency and demand-response standards for cooling equipment were to be pursued.

Cooling is central to health, prosperity, and the environment. We need cooling to keep people healthy, vaccines and energy supply stable, food nutritious, economies productive, and environment clean. In

¹ The <u>UNEP Cool Coalition Report: Global Cooling Watch 2023: Keeping it Chill: How to meet Cooling Demand, while</u> <u>cutting emissions</u>. Funded by Danida MFA, CONCITO and ClimateWorks Foundation

² UNEP 2023

a warming world, access to cooling is not a luxury. One billion people face immediate risks from lack of access to cooling, the vast majority in Asia and Africa. For many people in Sub-Saharan Africa and South Asia, especially in poor rural areas, the absence of electricity means no cooling for protecting food, vaccines, and medicines. India is one of the world's largest food producers, but as much as 40 percent of that food is wasted due to the lack of refrigeration and other supply chain bottlenecks. Around 30 per cent of the world's population is currently exposed to life-threatening temperatures for at least 20 days a year and heat waves already lead to 12,000 deaths annually across the world. These numbers will increase as the planet warms especially challenging for the vulnerable people in developing countries.

Most cooling is currently highly polluting due to the use of high global warming potential (GWP) refrigerants (direct emissions) and due to the indirect emissions from the electricity used to run appliances such as air conditioners and refrigerators.

Existing pollution needs to be cut urgently and booming demand for cooling met sustainably, complementing the Kigali Amendment to the Montreal Protocol that phases down hydrofluorocarbons (HFCs). The Kigali Amendment to the Montreal Protocol provides a strong legal basis for reducing the climate impacts of cooling. All 197 countries are signed up to the Kigali Amendment, with 70 countries having ratified as of today. Countries are required to develop national cooling action plans to phase down HFCs within an agreed timeframe. The phasedown of HFC refrigerants mandated by the Kigali Amendment to the Montreal Protocol will avoid up to 0.4°C of global warming. By accelerating this transition and promoting a comprehensive approach that reduces demand, shifts to renewables, and improves the efficiency of cooling, we can potentially double the climate benefits of the Amendment.

Meeting growing cooling demand sustainably is a huge challenge but also an equally big opportunity to work in an integrated way in achieving the targets to protect people, prosperity and the planet. Sustainable cooling refers to actions across all cooling sectors and applications that move towards net zero emissions by 2050 such as through passive cooling, increased efficiency, and low – Global Warming Potential (GWP) refrigerants. According to the UNEP Cool Coalition Global Cooling Watch 2023, cooling measures to improve efficiency and passive cooling, and a phase down of climate warming gases used in cooling equipment, could reduce predicted 2050 cooling emissions by 60 per cent– around 3.8 billion tons of CO2e. Following these measures, would also make it possible for an additional 3.5 billion people to benefit from refrigerators, air conditioners or passive cooling by 2050, save USD 22 trillion equivalent to 158 trillion DKK for end-users and the power sector, and reduce global peak load demand by between 1.5 and 2 terawatts, which is almost double the EU's total generation capacity today. If rapid grid decarbonization were added to these actions, predicted 2050 emissions could be reduced by 96 per cent.

A comprehensive and systemic shift to sustainable cooling is required to minimize growth in the emissions from cooling while increasing overall access to cooling for vulnerable and underserved communities. Meeting growing cooling demand sustainably presents one of the biggest opportunities to protect people, prosperity, and the planet. Integrated action is needed in three key areas:

1) Passive strategies to address extreme heat and reduce cooling demand in buildings, in the urban environment and in the cold chain.

2) Higher energy efficiency standards and norms for cooling equipment.

3) A phase down of climate-warming hydrofluorocarbon (HFC) refrigerants at a faster rate than is required under the Kigali Amendment to the Montreal Protocol, while improving the energy efficiency of cooling equipment.

Near-zero emissions from cooling – with improved access to cooling – can only be accomplished through the implementation of synergistic policies, regulations, training and financial instruments that work together to create a strong and sustainable cooling ecosystem.

UNEP with the support of Denmark and a small number of partners <u>launched the Cool Coalition</u> in 2019 as a global initiative to advocate for and take action to meet rising demands for cooling in a comprehensive manner. The Coalition has its origins in the First Global Conference on Synergies between the 2030 Agenda and the Paris Agreement, where partners defined 'comprehensive' in the area of cooling as delivering on the Paris Agreement, the Sustainable Development Goals (SDGs), and the Kigali Amendment to the Montreal Protocol. Within a few months, the Cool Coalition mobilized several high-level commitments to fast action on cooling from state and non-state actors and became a <u>transformative initiative</u> of the UN Secretary-General's Climate Action Summit in September 2019. <u>https://coolcoalition.org/about/cool-champions/ The Coalition has grown from 90 to 150 members since its launch in 2019.</u>

List the key documentation and sources used for the analysis:

- The <u>UNEP Cool Coalition Report: Global Cooling Watch 2023: Keeping it Chill: How to meet Cooling</u> <u>Demand, while cutting emissions</u>. Funded by Danida MFA, CONCITO and ClimateWorks Foundation

2. Political Economy and Stakeholder Analysis

For the green transition in cooling to have the desired effect, it depends on dynamic relations between the regulatory international and national framework in relation to both climate and environmental standards and economic conditions including trade as well as social and cultural values and traditions. The Cool Coalition has so far been addressing several of these relations. The Global Cooling Pledge with 70 signatory countries has a gone a long to forge a higher level of global ambition on cooling. About 35 countries have elaborated a National Cooling Actions Plan (NCAP) with the use of the methodology developed by the Cool Coalition. It is an important tool to assist countries in identifying pathways to integrate comprehensive action to reduce energy related emissions from cooling aligned with plans related to emissions from refrigerant transition and the Programme implemented with India's Ministry of Housing and Urban Affairs which will deliver on-the-ground support to help cities "Beat the Heat.", are initiatives contributing to building the right national frameworks. The implementation of the cooling pledge and NCAPs will in developing and middle-income countries to some extent depend on the success in raising finance including from donor agencies. However, it will depend even more on changing mindsets to realize how urban planning and application of passive cooling have huge potentially in contributing with reduction and avoidance of GHG emissions in ways that are rather cost efficient and relatively low-tech solutions. The demand for cooling is driven by population growth and economic growth in especially urban centers in developing and middle-income countries in Asia, Africa and Latin America where global warming with record high temperatures and waves of heat combined with demand from a growing urban middle of air conditioning and food products which require increased transportation and therefore cooling in the food chain. At present urban expansion is dominated by pathways which are not built on passive cooling principles but lead to increase demand for air conditions and cities are becoming comparatively warmer than surrounding areas due to intensive build up with concrete, deforestation, traffic etc.

The Cool Coalition is working on collecting existing, elaborating and disseminating tools for sustainable cooling technologies, passive cooling etc. to demonstrate how technical and economically viable pathways to sustainable cooling.

Stakeholder analysis

Type of stakeholder	Interest	Level of power	Examples on how interests may play out
COP chair	Showing results of the COP negotiations	Medium	Power level will depend on the country hosting COP negotiations. In the case of COP28 the interest from UAE in cooperating with the Cool coalition was instrumental for the take off of the Global Cooling Pledge.
National government	Mitigation emissions from cooling and also increasingly taking adaptative measures to reduce the negative effect of extreme heat. Especially developing countries have interest in accessing funding for such initiatives.	Medium to high	Depending on awareness of active and passive solutions to cooling and the extent to which the country is affected by extreme heat, government may to different degrees support the integration of cooling in their plans and strategies.
City government	Big cities will have increasing interest in avoiding extreme heat islands in big cities	Medium to high	Depending on awareness of active and passive solutions to cooling and the extent to which the country is affected by extreme heat, government may to different degrees support the integration of cooling in their plans and strategies.
Private sector	Main interest in active cooling but not against passive cooling	High	Private sector companies preferring to invest in the development and marketing of active cooling solutions and not in passive cooling.
Academia	Attracting funding for research. Visibility and application of results of research	Low	Active participation in working groups and in debate about different solutions base don academic research. Possible competition between research institutes for funding.
NGOs	Attracting funding for research. Visibility and support to advocacy messages	Low to medium	The playing field for governmental and non-governmental initiatives on climate change including cooling is crowded which may lead to increased competition for leading advocacy campaigns,

			getting access to donor agency and philanthropic funding.
Cool champions	Personalities which have taken on a special responsibility for promoting the cooling topic, the interest is to advance the topic and to some extent link the success with their effort.	Medium to high	Talk about cooling at different events, write about cooling in social media. Promote cooling initiatives
Donor agencies, development	Achieving international agreed goals, applying	Medium to high	Influencing design and implementation of initiatives to
banks	investments and funding with good results, further specific interests e.g. national private sector in the case of donor agencies, governance, standards, trade	to high	include considering for specific topics and/ or geographies. In some cases, there might be conditionality in relation to governance issues or to specific private sector issues.
Philanthropists	Visibility for the good results of their financing		The high normative interest may lead to preference for financing specific projects and activities and wanting to influence the way the activities are designed and implemented.

List key documentation and sources used for the analysis:

- Interviews with stakeholders i.e. Concito, Danfoss, members of the Cool coalition executive committee and working groups, the Cool coalition secretariat.
- Cool coalition website

3. Fragility, Conflict and Resilience

At an overall, reduction of Greenhouse gas emissions and the fight against climate change contributes to reducing potential conflict over increasingly scarce resources especially in countries which are most exposed to climate change and have low capacity to adapt. In this vein, green and efficient cooling on the food chain, development of liveable cities with less accumulation of heat and development of reliable and efficient water and energy supply system on green technologies are likely to contribute to reduced conflict potential and therefore indirectly to peace and stability.

4. Human Rights, Gender, Youth and applying a Human Rights Based Approach

Increasing temperatures and heat waves have particularly adverse effects on some population groups i.e. elderly people, people living in poverty in rural and urban areas and women in rural who have chores which require long hours in the field, fetching water or firewood and being exposed to sun and heat.

The Cool Coalition is addressing some of these effects in particular through its initiatives on Nature and Access which address passive cooling and urban planning and access to sustainable energy. The Cool Coalition is very aware of gender and diversity balance e.g. being a UN entity on the geographic balance in its operations. The secretariat staff has a good gender balance with an overweight of women. In external events, the Secretariat ensures good balance in panels and round tables. The steering committee and the executive committee are gender balance and the lead authors of the *Global cooling Watch report* – *Keeping it chill* – *How to meet cooling demands while cutting emissions?* were composed of two men and two women.

5. Inclusive sustainable growth, climate change and environment

Rapid growth in cooling is necessary for people's health nutrition and livelihoods: As the world warms, and as incomes and populations grow, demand for cooling is rapidly growing. Cooling is vital in a multiple of ways and in many different sectors e.g. health, agriculture and food systems, buildings and infrastructure. 1.2 billion people in Africa and Asia lack access to vital cooling services, disproportionately affecting women, and putting lives at risk from extreme heat, reducing farmers' incomes, driving food loss and waste, and hindering universal vaccine access. Hence, it is becoming critical for meeting several of the UN Sustainable Development Goals (SDGs).

Cooling growth is driving climate change and impeding the energy transition: UNEP Cool Coalition Global Cooling Watch 2023, which is a result of the first phase of Danish MFA support ³: funded by, finds that on current growth trends, cooling equipment represents one fifth of total electricity consumption today – and is expected to more than double by 2050. Greenhouse gas emissions (GHG) from power consumption will increase, alongside leakage of refrigerant gases, most of which have a much higher global warming potential than carbon dioxide, to 6.1 billion tons of carbon dioxide equivalent (CO₂e) in 2050, equivalent, more than 10 per cent of global projected emissions that year⁴ Without action for 'green the cooling' the growing demand will lead to increase GHG as much is based on fossil fuels and produced inefficiently.

This growth also has impact on infrastructure and prices, as it in many countries will strain electricity grids and inefficient equipment will also result in high electricity bills for end users, particularly in Africa and South Asia, where the fastest growth is predicted.

Meeting growing cooling demand sustainably is a huge challenge but also an equally big opportunity to work in an integrated way in achieving the targets to protect people, prosperity and the planet. Sustainable cooling refers to actions across all cooling sectors and applications that move towards net zero emissions by 2050 such as through passive cooling, increased efficiency, and low – Global Warming Potential (GWP) refrigerants. According to the UNEP Cool Coalition Global Cooling Watch 2023, cooling measures to improve efficiency and passive cooling, and a phase down of climate warming gases used in cooling equipment, could reduce predicted 2050 cooling emissions by 60 per cent– around 3.8 billion tons of CO2e. Following these measures, would also make it possible for an additional 3.5 billion people to benefit from refrigerators, air conditioners or passive cooling by 2050; save USD 22 trillion for end-users and the power sector; and reduce global peak load demand by between 1.5 and 2 terawatts, which is almost double the EU's total generation capacity today. If rapid grid decarbonization were added to these actions, predicted 2050 emissions could be reduced by 96 per cent.

³ The <u>UNEP Cool Coalition Report: Global Cooling Watch 2023: Keeping it Chill: How to meet Cooling Demand, while cutting emissions</u>. Funded by Danida MFA, CONCITO and ClimateWorks Foundation

⁴ UNEP 2023

70 countries signed the cooling pledge at the COP28 where they commit to reduce cooling related emissions by 68 pct. from today by 2050, significantly increase access to sustainable cooling by 2030, and increase the global average efficiency of new air conditioners by 50 pct.. The emission targets draw on the modelling from the UNEP Cool Coalition report <u>Global Cooling Watch 2023 Keeping</u> it Chill: How to meet cooling demands while cutting emissions. There is a great potential for mainstreaming the pledge commitments in the countries' NDCs. In this mainstreaming there is a potential for synergies with adaptation in the water, energy, food and agriculture and building sectors.

6. Capacity of public sector, public financial management and corruption

70 countries have signed the cooling pledge at COP28. Apart from core funding to the secretariat Denmark will support the implementation of the pledges at the national level. This will include capacity building of public sector institutions through elaboration and dissemination of various knowledge products. Furthermore, the Cool Coalition Secretariat will select 1-2 countries where the support will be more focused on directly supporting the integration of cooling into the countries NDC's and other relevant strategic and regulatory documents. This support will be carried out in close cooperation with other partners such as the World Bank, the NDC Partnership and the EU Delegations. In the selection of these focus countries important criteria will be the countries engagement and interest, Danish engagement in the countries especially in the area of climate change and existing partnership and support to the country which is likely to reinforce initiatives on cooling. It is not envisaged that the support will include direct financial support to the countries.

7. Matching with Danish strengths and interests, engaging Danish actors and seeking synergies

The initiative is strongly in line with the Danish Strategy for Development Cooperation *The World We Share*, especially the strategic area **The fight for climate, nature and environment** where Denmark has set as objectives to *Assume international leadership within reductions, green transition, and access to clean energy* and *Increase mobilisation of finance and promote green Danish solutions within climate, nature and the environment.*⁵ The Danish strategy has a strong focus on *strengthening action to support climate change adaptation, nature, the environment and resilience in the poorest and most vulnerable countries* and under this focus area, there is potentially a lint to the Cool Coalition as Denmark will *Contribute to ensuring climate-smart infrastructure*. *Focus on water supply and sanitation in rapidly growing urban centres affected by climate change.*

It is also aligned with the Danish Global Climate Action Strategy 'A Green and Sustainable World' which sets out how Denmark will work to Increase global climate ambition, Reduce global greenhouse gas emissions, Shift financial flows to green, Cooperate with the private sector on green solutions while also Strengthen focus on adaptation and sustainable development.

The support is relevant for Denmark's support to Green transformation of agri-food systems agri- and food production, business⁶ and food security. There are potential synergies with the Danish Market Development Programme (DMDP). The overall purpose of a DMDP project is to catalyse local economic activity, market development and unleash business potential leading to employment and income opportunities in the Danish priority countries contributing primarily to Sustainable Development Goals 8 and 17. Under DMDP, Denmark is supporting e.g. Solar for

⁵ THE WORLD WE SHARE Denmark's Strategy for Development Cooperation

⁶ How to Note: Green transformation of agri-food systems – agri- and food production, business, Ministry of Foreign Affairs of Denmark June 2023

Cooling: Energy and refrigeration solutions for small-scale fishing in Kenya (5 mDKK) and The Fresh Fruit Nexus: Sustainable Livelihoods for Refugees and Host Farmers in Northern Uganda (11, 5 m DKK). Danish expertise in energy systems and green technologies as well as energy efficiency, agriculture and food systems are where Danish companies potentially have a role to play. Danfoss is already a strong partner and member of the executive committee of the Cool Coalition.

The ClimateWorks Foundation, GIZ and SDC are very active partners of the Cool Coalition. GIZ are SDC are particularly engage in the Cool Coalition project in India in the areas of District Cooling and green building standards respectively.

Annex 2: Partner Assessment

The Cool Coalition is comprised of 150 partners and the work is organized around 10 working groups. The working groups bring partners together around a common agenda to communicate on existing efforts, identify and address gaps and areas for collaboration, and mobilize joint commitments to action on efficient, climate-friendly cooling. The Cool Coalition Cool Hub works with its clusters support to engage partners across its three workstreams, ensure stakeholder ownership and scalability.

The UNEP Cool Coalition Secretariat comprises of a Head of Secretariat, project manager, a project support staff, and a capacity building coordinator.

The Cool Coalition adopts a comprehensive understanding of efficient, climate-friendly cooling with the following focus areas:

- REDUCE where possible the need for mechanical cooling through better urban planning and building design, and the use of nature-based solutions such as green public spaces and green roofs and walls.
- SHIFT cooling to renewables, district cooling approaches, solar powered cold chains, etc.
- IMPROVE conventional cooling by increasing the efficiency of air conditioning and refrigeration equipment and demand response measures.
- PROTECT vulnerable people from the effects of extreme heat and consequences of unreliable medical and agricultural cold chains.
- LEVERAGE cooperation between different actors active in cooling to achieve a greater collective impact.

Table 1. 1 Tojeet implementation particles and key actors					
Component #	Cool Coalition members and strategic partners				
1	Ozone Secretariat, Montreal Protocol Multilateral Fund, Gluckman Consulting, all Pledge signatory country governments, International Energy Agency, World Bank Group, IFC, Cairo University, University of Oxford, Clean Energy Ministerial, G7 and G20 Presidencies, UNFCCC, COP Presidencies, Cool Coalition Working Group and membership at large.				
2	Ozone Secretariat, University of Oxford, World Bank Group, and all other entities working on tools and resources globally to enable a policy shift towards sustainable cooling including UNDP, SEforALL, GIZ, CLASP, CCAC, GABC, International Institute of Refrigeration, and Mission Innovation, largely comprising of the Cool Coalition membership (<u>Partners - Cool Coalition</u>).				
3	Financing entities including development agencies, philanthropies, bilateral and multilateral financing institutions such as CCAC, World Bank, IFC, national governments signatory to the Global Cooling Pledge, and partners across the Cool Coalition membership working in-country in support of National Cooling Action Plans and enabling access to cooling financing.				
4	UNEP Ozone Secretariat, Montreal Protocol Multilateral Fund, Gluckman Consulting, all Pledge signatory country governments, city-level governments				

Table 1. Project implementation partners and key actors

supporting the Global Cooling Pledge, International Energy Agency, Clean Energy
Ministerial, G7 and G20 Presidencies, UNFCCC, COP Presidencies, Cool
Coalition Working Groups and membership at large.

There are several initiatives working on the cooling agenda, but a lack of a uniting platform, which adopts a comprehensive approach to challenges relating to cooling. The Cool Coalition fills the gap and reflects the notion that a united effort of actors sharing the same objective of advancing efficient, climate-friendly cooling is more effective than any stakeholder acting alone.

Active Cool Coalition working groups:

National Cooling Action Plans chaired by UNDP and Cool-Up: Develop comprehensive methodologies, templates, and tools. Supports country development, training, and implementation.

Private Sector Mobilization chaired by Danfoss and EIA: coordinates private sector engagement, input, in-kind support for Coalition activities, creates tools to support companies decarbonization.

Urban Heat Adaptation chaired by Mission Innovation, the Global Covenant of Mayors, and the Extreme Heat Resilience Alliance: supports cities in taking comprehensive action to combat extreme heat, develops guidance and tools including Beating the Heat: A Sustainable Cooling Handbook for Cities and the Heat Action Platform and leads advocacy, training, demonstration efforts.

Nature Based Solutions for Cooling chaired by WWF: a community of practice that collects case studies, best practices and raise awareness on key benefits of NbS for cooling and will support guideline development.

Cooling Finance chaired by World Bank Group and IFC: exchange among MDBs and FIs on to enhanced strategic understanding of cooling within lending operations, develops guidance to help countries access finance to cooling, funding facilities and proposal preparation processes.

Dormant Working Groups:

Renewable Energy Cooling chaired by IRENA: case studies on renewable-energy driven cooling solutions and exchange best practices.

Sustainable Cold Chains chaired by University of Birmingham and FAO: collaborated to develop a Sustainable Food Cold Chain Report: Opportunities, Challenges and the Way Forward and to put cold chain as part of the outcome document for the UN Food Systems Summit.

The Cool Coalition gathers multistakeholders around a approach holistic to cooling and cold chainone emphasizing reduce, shift, improve, protect that promotes naturebased solutions, smart buildings, renewable energy and efficiency solutions. Thereby the complements coalition other initiatives that are active in more specific parts of the cooling sector or focus on specific stakeholder groups such as such as the Cool Hub of the Climate and Clean Air Coalition (CCAC), Rocky Mountain the Institute's (RMI) Global Cooling Prize, Sustainable Energy For

All's Cooling for All. For example, the CCAC Cool hub is focused on Short Lived Climate Pollutants (HFCs) and is mandated to undertake high-level political outreach activities targeting awareness raising among national governments and focused on the phase down of HFCs; RMI Global Cooling Prize is focused on room air conditioning; SEforALL's Cooling for ALL initiative is focused on the "protect" component of action etc.

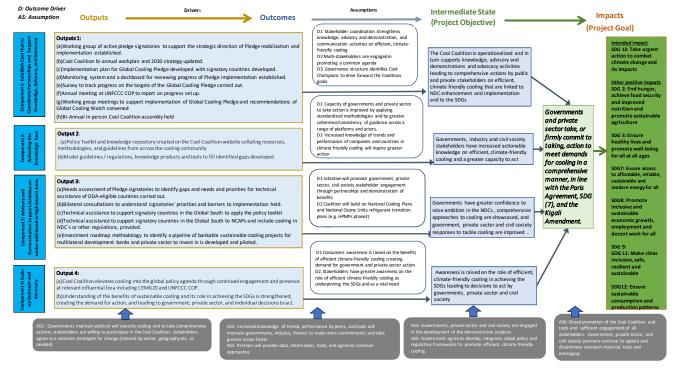
The Cool Coalition avoids replication with these and other initiatives by working in partnership with these initiatives to advocate collectively for commitments on efficient, climate-friendly cooling and to coordinate across different initiatives for mutually reinforcing results and showcasing the full diversity of options for action.

Name of Partner	Core business What is the main business, interest and goal of the partner?	Importance How important is the project/programme for the partner's activity- level (Low, medium high)?	Influence How much influence does the partner have over the project (low, medium, high)?	Contribution What will be the partner's main contribution?	Capacity What are the main issues emerging from the assessment of the partner's capacity?	Exit strategy What is the strategy for exiting the partnership?
UNEP's Cool Coalition	The overall objective of the Cool Coalition is that government and industry take, or firmly commit to taking, action to meet demands for cooling in a comprehensive manner, which is linked to the nationally determined contributions (NDC's) enhancement and – implementation and are in line with the Paris Agreement, SDG 7 as well as the Kigali Amendment. • Training • Tools • NCAP • Global Policy Pledge	High. The contribution from the Danish MFA is the only core funding.	High. The partner is the implementer of the project. The Cool Coalition is established as a platform, which brings together actors from government, cities, international organizations, businesses, finance and academic institutions, and civil society to facilitate joint action, knowledge exchange, technical assistance and advocacy directed at governments to accelerate the global transition to efficient, climate- friendly cooling. The Cool Coalition	The Cool Coalition will lead the implementation of the 4 Work Packages. UNEP will be accountable to the Danish MFA for the disbursement of funds and the achievement of project goals	Strength: Comprehensive, integrated approach. Dedicated and competent staff. Contracts for both the staff and consultants are in general at least two years. This gives more stability compared to 1 year contract which are also widely applied in the UN system. <u>Weakness</u> : Limited staff resources to match the high level of ambition. The head of the secretariat is the only full-time person and she is not UN core staff, which means that there is no job security and it can be	No special requirements after end of contract

Pilot projects:	provides technical	an incentive for staff
India, Cambodia,	assistance to	to move elsewhere.
Vietnam and	countries and cities	<u>Opportunity:</u> As part
City challenge.	to implement a more	of the UN system
- 17 - 1 - 81	ambitious, holistic	has key role in
	and cross-sectoral	leveraging resources
	approach to meet	and finance,
	growing demands	cooperation with
	for cooling, which	other relevant UN
	contributes to both	agency, convener.
	the broader	The global cooling
	sustainable	pledge gives entry
	development and	points to the
	addressing the	national level and
	climate crisis. Thus,	practical
	the coalition links	implementation.
	action across the	Tapping the capacity
	Kigali Amendment,	and resources of the
	Paris Agreement and Sustainable	150 engaged
	Development Goals.	members to further
	Development Goals.	gathering of
		knowledge and
		practical experience
		and research to
		contribute to
		cooling
		implementation.
		<u>Threats:</u>
		The Cool Coalition
		remains one of a
		series of promising
		initiatives without
		taking off as funding

	for core actions remains limited.
	The effect of increased use of sustainable active and efficient cooling technologies is limited as demand is growing and outruns the effect.

Annex 3: Theory of Change



Annex 4. Risk Management Log

Risk Description		Category	Impact severity	Likelihood	Risk Management -	By when/ whom
2	Lack of political commitment to comprehensive action on climate friendly cooling Initiative	Political and Organizational Political and	Medium Medium	Medium Medium	Demonstration of national and local benefits, reporting on performance by peers through status report, and establishment of a global partnership. Governance	Throughout the project. Cool Sec./ Project Coordinators
2	Initiative involves several stakeholders on different levels (national, local) and different backgrounds which might cause coordination challenges	Political and organizational	<i>Iviedum</i>		Governance structures created to enable different stakeholders to have a voice – this includes through a large "Coordination Council" which is projected to include 20-30 representative organizations from different clusters, and monthly cluster calls with stakeholders who share a common interest; as well as the ability to have "Cool Champions" to feature different voices and perspectives. In this way, the governance and structure of the CC is participatory and facilitates coordination.	UNEP (Cool Sec) K-CEP, E3G, SEforALL, Cluster Leads (WWF, WBG, CCAC, GABC, EP100)
3	The members represent a variety of different and very engaged stakeholders at	Political and organizational	Medium	Medium	Secretariat to ensure that the rights stakeholders are engaged in cooperation with members.	Cool Coalition secretariat in coordination with members

	the right level and with the right skills.					
4	Lack of stakeholder engagement in the workplan activities and/or use of tools and methodologies	Political and organizational	Medium	Medium	Effective operation of the governance structure (clusters and "coordination council"). Advocacy and outreach campaign will further strengthen the promotion of tools and showcase the activities of partners encouraging stakeholder engagement, including through the Cool Champions	Secretariat (UNEP), Cool Champions
5	Inadequate support/will from governments and other stakeholders to commit to policies and regulations.	Political and organizational	Medium	Medium	Adopt a participatory and consultative approach to ensure strong ownership, which will involve the conduct of workshops and consultations to seek inputs/ views of stakeholders.	UNEP and Cool Coalition partners
6	National or Local Government changes and may or may not support the project.	Political	Medium	Medium	The multi-stakeholder approach will help ensure that support for the project is developed across a wide spectrum of actors. Assessments, quantification of benefits, well documented results and evidence-based policy will further strengthen the case	UNEP

					for action, should there be a new government in place	
7	Lack of private sector involvement due to barriers involved in implementing efficient, climate- friendly cooling	Financial	High	Medium	establishment of regulatory and market conditions and demonstrate	Secretariat with the support for IFIs and Private sector partners
8	More focus on commercial solutions e.g. active cooling than structural solutions e.g. passive cooling	Political and economic	High	Medium	National and local governments and donor agencies can prioritize support to structural solutions e.g. passive cooling and research institutions can provide evidence for low cost solutions.	Governments, city administration, donor agencies, research, institutions

Annex 5: Budget Details

UNEP Cool Coalition global multi-year budget from 2019 as of August 2024.

Donor	Total Amount	Period	% Global Secretariat	% In-country implementation	Scope
Government of Denmark (DANIDA)	\$1,409,360	2019-2023	50%	50%	 Establishment of Cool Coalition Secretariat, global activities and advocacy, development of global pledge and country engagement and communications Implementation in India on urban cooling, cold chain and communications
ClimateWorks foundation	\$3,712,815	2023-2025	35%	65%	 Support in development of Global Cooling Watch report, engagement of countries for Global Cooling Pledge, Secretariat functions including communications, knowledge products Country projects in India (cold chain and urban/passive cooling); Viet Nam (NCAP, national cooling fund and urban/passive cooling); Cambodia (passive cooling)
Government of Belgium	\$50,000	2022-2023	100%	0%	- Development of global GCF cooling facility to support pledge implementation
UNEP contribution	\$300,000	2019-2024	100%	0%	 - UNEP regular budget and environment fund used for support to Cool Coalition and global communications and political engagement on cooling
Tabreed	\$301,200	2020-2024	70%	30%	 Global communications support including for COP28; global study tour on district cooling Activities on cold chain and district cooling in India
Government of Italy	\$486,000	2020 - 2024	20%	80%	 District cooling analyses and policy work with recommendations in Morocco and Tunisia and study tours and trainings
Rockefeller Philanthropy Advisors (RFA)	\$254,328	2020-2023	0%	100%	- Cold chain analysis in Morocco
GEF Chile	\$270,000	2020 - 2024	15%	85%	- District cooling and heating analyses, policy development and national district energy hub in Chile

	102,958,020 kr.		32,024,702 kr.	70,933,318 kr.	*Danish Kr. values calculated at flat rate of 0,15 USD/Kr. and as such are approximate values only
	\$15,443,703		\$4,803,705	\$10,639,998	
Governments of Norway and Sweden	\$120,000	2020-2022	0%	100%	Activities on urban cooling and cold chain in India
GIZ (IKI)	\$1,100,000	2024-2026	35%	65%	Establishment of global and India district cooling knowledge hub
Swiss Agency for Development and Cooperation (SDC)	\$6,440,000	2023-2028	15%	85%	 Passive cooling program in India and establishment of global working group on passive cooling
Climate and Clean Air Coalition (CCAC)	\$1,000,000	2024-2025	75%	25%	- Development of regional NCAP methodology in MENA and two country NCAPs

Annex 7: Plan for Communication of Results

Results will be communicated throughout the Cool Coalition network so that tools and methodologies can also be leveraged by our partners. All tools and results will also be documented on the Cool Coalition Pledge Implementation toolkit online and free to download. We will showcase learnings and best practice across other UNEP and GKK projects.

What?	When?	How?	Audience(s)	Responsible
(the message)	(the timing)	(the mechanism)		
Pledge/Policy Implementation	MOP36 Bangkok (October 2024) SEforALL Forum (September 2024)	Regional Workshops	Pledge signatories and other policy makers	
	Annual Cool Coalition Assembly (2024 and 2025 TBD)			
National Cooling Action Plans and NDCs	Q4 2024 in MENA, Asia Pacific and Africa Q3 2025 in MENA	Regional workshops	Pledge signatories and other interested policy makers	
Passive Cooling	India (Q4 2024) ASEAN (2025) Cambodia	Workshops	Real estate developers, buildings value chain, policy makers	
Energy efficiency, Innnovation, Pledge Implementation	Clean Energy Ministerial / G20 ETWG	Event		

Annex 8: Process Action Plan for Implementation

Action/product	Deadlines	Responsible/involved units	Comment/status
Finalisation of the project/programme document	October 2024	KLIMA	
Checklist for approval by the Under-secretary for development policy: QA of required documentation	October 2024	KLIMA	The filled-in checklist to be attached to the project/programme document, appropriation cover note and Annex 9
All documentation are sent in 360 for the Under- secretary's endorsement via the Head of unit and LÆRING (Modtagelse i Bevillingssekretariatet)	Oct/Nov 2024	KLIMA	
LÆRING presents the grant for final approval by the Minister	Oct/Nov 2024	LÆRING	
The minister approves the project	Oct/Nov 2024	LÆRING submits the proposed project/programme together with the minutes of meeting	
LÆRING facilitates that grant proposals are published on Danida Transparency after the Minister's approval	After Minister's approval	LÆRING	
Signing of Government- to-government agreement(s) and/or other legally binding agreements (commitments) with partner(s)	After Minister's approval	KLIMA	
Register commitment(s) in MFA's financial systems within the planned quarter	After agreement(s) are signed	KLIMA	