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Sept

14:00–16:00 GMT +3

Developing and Implementing National Cooling Action Plans in Africa: An Interactive Workshop for Officials and Civil Society

In the framework of the 2021 Africa Climate Week Virtual Thematic Sessions

 Brian Holuj Programme Management Officer, United for Efficiency, UNEP	 Richard Munang Regional Climate Change Coordinator for Africa, UN Environment Programme	 Juliet Kabera Director General, Rwanda Environment Management Authority	 Alice Uwamaliya Associate, SEforALL	 Okon Ekpenyong Director, Energy Commission of Nigeria	 MarIndany Kirui Coordinator, National Ozone Unit, Ministry of Environment and Forestry, Kenya	 Maphuti Legodi Department of Mineral Resources and Energy, South Africa
Developing and Implementing National Cooling Action Plans in Africa: An Interactive Workshop for Officials and Civil Society						
 Marco Duran Energy Efficiency and Cooling Specialist, Cool Coalition & United for Efficiency, UNEP	 Satish Kumar President and Executive Director, Alliance for an Energy Efficient Economy	 Gerry George Senior Research Associate, Alliance for an Energy Efficient Economy	 Larissa Gross Research Manager, E3G	 Sabin Basnyat Senior Energy Efficiency Specialist, Green Climate Fund	 Jalel Chabchoub Chief Investment Officer / Energy Efficient Expert, African Development Bank	 Angèle Luh-Sy Head, Sub-Regional Office for West Africa, UN Environment Programme

Key messages:

- Countries in Africa can develop National Cooling Action Plans (NCAPs) to drive the transition to efficient and sustainable cooling for all and support energy, climate and sustainable development goals. With rising temperatures and the increased cooling demand, the transition to sustainable cooling is critical.
- NCAPs provide pathways for cross-sectoral collaborations and synergies, including for action on energy efficiency and refrigerants transition. They enable cross-sectoral collaboration and provide a clear policy, intervention and investment pathway to facilitate action for all sectors involved.
- Technical assistance, policy support tools and financial support are widely available for country officials to endeavour in the NCAPs development process, including the Cool Coalition [comprehensive NCAP methodology](#).
- The policy framework plays an important role in how we structure our societies. This is also the case for the cooling sector.

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AGENDA

When	What	Who
MC: Brian Holuj, Programme Management Officer, United for Efficiency, UNEP		
14:00-14:05	Welcome	Richard Munang, Regional Climate Change Coordinator for Africa, UN Environment Programme
14:05-14:15	Keynote: From NCAP Development to Comprehensive Implementation in Rwanda	Juliet Kabera, Director General, Rwanda Environment Management Authority
14:15-14:45	Round Table: Country Needs and NCAP Experiences	<p><u>Context setting and moderation:</u> Alice Uwamaliya, Associate, SEforALL</p> <p><u>Panelists:</u></p> <ul style="list-style-type: none"> - Okon Ekpenyong, Director, Energy Commission of Nigeria - Marindany Kirui, Coordinator National Ozone Unit, Ministry of Environment and Forestry, Kenya - Maphuti Legodi, Department of Mineral Resources and Energy, South Africa
14:45-15:10	Training Module: NCAP Development Process	<p>Marco Duran, Energy Efficiency and Cooling Specialist, Cool Coalition & United for Efficiency, UNEP</p> <p>Satish Kumar, President and Executive Director, Alliance for an Energy Efficient Economy</p> <p>Gerry George, Senior Research Associate, AEEE</p>
15:10-15:20	Q&A	
15:20-15:45	Round Table: Funding and Finance for NCAP Development and Implementation	<p><u>Context setting and moderation:</u> Larissa Gross, Research Manager, E3G</p> <p><u>Panelists:</u></p> <ul style="list-style-type: none"> - Sabin Basnyat, Senior Energy Efficiency Specialist, Green Climate Fund - Jalel Chabchoub, Chief Investment Officer / Energy Efficient Expert, African Development Bank
15:45- 15:55	Q&A	
15:55-16:00	Closing Remarks	Angèle Luh-Sy, Head, Sub-Regional Office for West Africa, UN Environment Programme

Detailed Workshop Report

Welcome Remarks from Richard Munang, Regional Climate Change Coordinator for Africa, UN Environment Programme

Mr Richard Munang opened by welcoming everyone to the workshop and by emphasizing that people have the capacity to develop cooling solutions that are harmful for the environment but also that protect the environment. We are the creators of inefficient cooling, but we are also the curers which is why sustainable cooling solutions are essential for the protection of our planet and people. Cooling solutions provide a lot of good but are still harmful to our planet, which is why the transition to sustainable cooling is crucial and is the missing piece in our sustainable development puzzle.



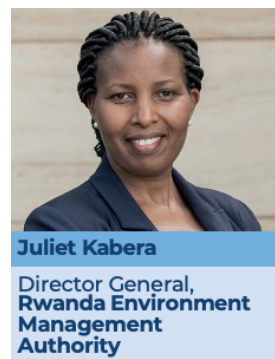
Cooling and cold chains are at the heart of all development from vaccine distribution to running hospitals, buildings, and schools to food distribution, it underpins much of our existence. However, the effects are detrimental to our planet, air conditioning and refrigerants account for 7-10% of global CO2 emissions from energy usage and HFC leakages. Alongside the latest IPCC's 'Code Red' report, the socio-economic and environmental challenges Africa now face will only escalate.

The IEA estimates that the cooling demand in Africa will jump 10-fold by 2040 with 359 million people at risk who do not have access to cooling. Sustainable cold chains and cooling would reduce food loss, today the African continent loses about 50% of what it produces and could feed over 300 million people (almost half of the number of people undernourished worldwide). This is why the Reduce-Shift-Improve-Protect strategy, focusing on smart buildings, renewable technologies, nature-based solutions, super-efficient equipment and appliances, must be adopted at a country level for a holistic approach to sustainable cooling across the African continent.

Mr Richard Munang highlighted the pioneering countries taking bold steps towards cooling action by developing NCAPs: Kenya, Rwanda, Nigeria, and South Africa as well as the countries incorporating cooling strategies into their NDCs: Burkina Faso, Ethiopia, Tunisia, Morocco, and Nigeria. Mr Richard Munang concluded by thanking the Cool Coalition for their efforts in developing the NCAP methodology and UNEP for its continuous assistance to member states developing their NCAPs.

Keynote Speech: From NCAP Development to Comprehensive Implementation in Rwanda by Director General Dr Juliette Kabera, Rwanda Environment Management Authority

Director General Kabera opened by welcoming all participants to the event during Africa Climate Week and thanking all organisers for their efforts in putting together this event. Director General Kabera began the discussion by highlighting the complex and cross-cutting nature of the climate-friendly cooling topic which therefore needs to be addressed comprehensively across all sectors, including: agriculture, health, industry, building and construction, private, and public sectors. The Director General illustrated that Rwanda took precedence in its NCAP development three years ago with no example to follow, and now, has ambitious targets for its NDCs to reduce GHG emissions to 38%. The Director General noted that Rwanda's NCAP strategy is one that speaks to all sectors which, consequentially, helps to deliver on the NCAP strategy overall.



The NCAP serves as a call to sustained action, not just a one-time action with strategies that can be built upon over time and continuously strengthened. Further, working collaboratively to create a holistic approach to sustainable cooling is crucial. Rwanda has a long-term vision to expand and collaborate regionally and internationally with shared cooling objectives. The African region's MEPS targets are ambitious and will remove the barrier to some essential collaborative work in the clean energy transition for climate-friendly cooling. In addition, Rwanda's NCAP implementation

along with the development of funding schemes are underway to create access to sustainable cooling solutions and products. Rwanda looks forward to collaborating across sectors, supporting interconnections to uphold the commitment to achieving a transition to sustainable cooling.

ROUND TABLE: Country Needs and NCAP Experiences



Ms Alice Uwamaliya started by providing context and background on cooling topic in the Africa. Using the latest SEforALL data on the Cooling Access Gap, Ms Alice Uwamaliya presented the data, outlining the risk for populations across 31 identified high-impact countries that lack essential cooling services and, therefore, why it is important to identify areas that need addressing to include them in NCAPs. Further, it is important to be needs driven, to encourage partners to go beyond addressing the access to products and foster solutions to access space and mobility for cooling that have long-term and sustained impact. Investigating the Cooling Access Gap which impacts and determines peoples' lives, health, and productivity, is crucial to formulating the guiding questions that lead to the indicators for addressing the cooling needs, access to cooling, and a need driven NCAP. Access to cooling is essential for sustainable development and resilience which is why the role of NCAPs are so necessary in building comprehensive strategies to close the sustainable cooling access gap. Ms Alice Uwamaliya rounded the introduction off by recognising the work of South Africa and Kenya on their development of their NCAPs as well as Nigeria's efforts in beginning their own.

Mr Marindany Kirui opened by thanking the organisers for the organisation of this event. Mr Marindany Kirui continued by explaining that the NCAP development in Kenya was motivated in 2013 by the electrification connectivity which also led to the identification of four main issues of development to address: food security, affordable housing, manufacturing growth, and healthcare and will help progress Kenya's development strategies. Mr Marindany Kirui noted that all of these issues are involved in cooling and, therefore, created collaboration on the development of sustainable cooling and the development of Kenya's NCAP, despite the fact that Kenya has not ratified the Kigali Amendment. The recommendation was to adopt cooling services that are climate-friendly and aligned to the targets of the Kigali Amendment for the transition and development of sustainable cooling.

Mr Okon Ekpenyong discussed the motivation of the NCAP development and action on cooling in Nigeria's Enhanced NDC process. Mr Okon Ekpenyong explained that the highest energy consumption in Nigeria is on energy for cooling and with the added impact of rising temperatures, action must be taken on sustainable cooling solutions. This is the motivation for Nigeria to take steps towards cooling action as well as energy efficiency being a central foundation of Nigeria's NDC targets. The next steps for Nigeria include collaboration with stakeholders to continue the development of Nigeria's NCAP development and to expand its efforts and hard work on its energy efficiency which is a central focus of Nigeria's development and will be supported by UNEP.

Mr Maphuti Legodi discussed South Africa's efforts towards action on cooling, explaining that South Africa began measures in 2005 to build policies and strategies up to 2015. For South Africa, the key focus was the residential sector. Mr Maphuti Legodi explained the strategies for energy efficiency standards which include 12 appliances as well as RACs. Mr Maphuti Legodi noted that this was a new process for the industry to address energy efficiency standards, however, the

government engaged them as a national priority to promote the standards of energy efficiency. There were some challenges among air conditioning businesses due to the fact that they are imported to South Africa. Nonetheless, the industry did adopt MEPS labelling with consistent efforts. From the government to engage them as a priority. Further, South Africa then needed to address the HFC phase-down of the Kigali Amendment to the Montreal Protocol in 2019. This was the motivation to develop an NCAP. South Africa approached the NCAP development process holistically, working with the Clean Cooling Collaborative and the final draft of the NCAP is currently undergoing government approval before being adopted as a national policy for implementation. The next steps for South Africa are looking at how the NCAP can be strengthened and regulated over time as well as sharing its experiences with regional partners and neighbours for regional comprehensive action on the transition to sustainable cooling. A key barrier that Mr Maphuti Legodi illustrated is the misalignment of government ministries on climate action, therefore, a key recommendation for countries is to collect as much data as possible to justify the need for alignment and collaboration of different departments because action on climate and cooling effects all departments and sectors.

Training Module: The NCAP Development Process



Marco Duran

Energy Efficiency and Cooling Specialist, **Cool Coalition & United for Efficiency, UNEP**



Satish Kumar

President and Executive Director, **Alliance for an Energy Efficient Economy**



Gerry George

Gerry George, Senior Research Associate, **Alliance for an Energy Efficient Economy**

Mr Marco Duran opened his presentation by providing context on the benefits of having an integrated and holistic vision to cooling and how NCAPs are an enabling tool to a comprehensive approach and to drive stakeholder collaboration. He shared with participants how the Cool Coalition in collaboration with the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) and the Alliance for an Energy Efficient Economy (AEEE) building on the experience and expertise of key partners such as UNDP, SEforALL, U4E and others developed a comprehensive and modular methodology for supporting countries in developing their NCAPs.

Mr Marco Duran explained that the NCAP methodology can cover all sectors of cooling through five modules, it looks at cooling from the perspective of both the “met” and “unmet” demand, and that it can be applied and adapted according to each country’s priorities and needs. Mr Marco Duran also highlighted the importance of inter-institutional collaboration and carrying out an initial diagnose of the national situation in order to define limitations and scopes of the NCAP and setting up the context. The methodology has seven steps to guide NCAP development and has the ultimate goal of helping national governments to have better visibility of opportunities for better addressing the cooling demand, improve coordination with institutions and international agencies and accelerate the transition to energy efficient and climate-friendly cooling.

The Alliance for Energy Efficient Economy (AAEE)’s Dr Satish Kumar guided participants on how to implement the NCAP Methodology in countries and the Cooling Demand Assessment which is the heart of the NCAP Methodology. Dr Kumar presented the foundational principles, which include adaptability to meet the unique needs of the country, simplification and prioritisation depending on available resources and stakeholders involved, and accounting for the skills that are available. The NCAP Methodology has been designed to address the diverse needs of different countries whilst also giving an answer to policymakers wondering how to create policies that move towards sustainable cooling and increase access. Dr Kumar also highlighted that the methodology fosters

alignment on actionable policies, leverages cross-governmental action, and helps to set direction and cooling targets to reduce its impact on the climate while maximising socio-economic benefits.

The NCAP methodology follows a Lean, Mean, and Green construct. Firstly, reducing cooling loads to the extent possible. Secondly, serve cooling loads efficiently with low-climate impact. Thirdly, optimise the cooling operations and behaviours to deliver cooling where and when it is needed. Multi-stakeholder and collaborative development from the outset is paramount for effective results. The NCAP coordinating entity should work with public, private and academia sectors to drive the process because of the cross-cutting nature of the NCAP. As a result, integrated policymaking creates a more robust form of policies instead of one sector attempting to implement an NCAP. Continuous engagement and lateral work through government and sectors is crucial for a robust NCAP by aligning objectives, strategies, and maximising benefits. The NCAP should be short and effective as to gather full engagement across sectors. For example, during the NCAP development in India, the Ozone department worked with all industries to help synthesise the policy documentation across all sectors.

Gerry George (AAAE) dived into understanding the cooling demand assessment (stage two of the NCAP methodology). This is the heart of the NCAP methodology which establishes the current and future cooling demand of the country. It is a data-driven assessment that presents the 'unmet' and 'met' current and future cooling demand. 'Met' is the cooling demand that has been served through mechanical means, whereas the 'unmet' is the cooling demand that has not been served due to lack of access to cooling. The cooling demand assessment not only establishes a baseline for both demands and projects future growth in two scenarios: business as usual where cooling demand will evolve based on ongoing level, and intervention scenario based on an accelerated level.

Mr George explained that the data assessment frameworks provided as part of the Methodology are a directional tool to support the data collection and analysis, not instructional. The NCAP development team should exercise discretion to create flexibility to suit country's contexts. A challenge is access to data which are not always available, however, using data at the international level and cross-sector collaboration is usually a solution to this. Once the data assessment is complete it will give an indication into which cooling sectors need to be addressed through the NCAP at present and future.

ROUND TABLE: Funding and Finance for NCAP Development and Implementation



Ms Larissa Gross moderated the round table on closing the funding gap by the financial sector on the transition to sustainable cooling. Jalel Chabchoub from the African Development Bank (AfDB) and Sabin Basnyat from Green Climate Fund demonstrated the support the financial sector offers for implementation of sustainable cooling development projects as well as the commitment from the financial sector that needs to be strengthened to close the funding gap. Ms Larissa Gross showcased the necessary actions to build a community of champions with multilateral development banks who can work with teams to mainstream cooling which is at the nexus of the three global challenges: the Paris Agreement, SDGs, and the Kigali Amendment. Therefore, funding for sustainable cooling as well as support from shareholders and banks to understand and map cooling needs specific to communities is essential to delivering on these global commitments.

Mr Jalel Chabchoub highlighted the support that banks can offer, particularly with the technical and financial risk that so frequently exists. The AfDB puts in place the strategies to promote energy efficiency and cooling in the private and public sector. The AfDB supports options on sustainable cooling such as District Cooling in Tunisia and continues to support energy providers to support activities to transition to energy efficiency and cooling. AfDB can support countries according to their needs with services such as, technical assistance for prioritisation and programme design. Mr Jalel Chabchoub explained that the NCAP will provide an enabling environment for AfDB programmes and funding opportunities to build upon its already extensive support in the cooling sector at different levels. The AfDB aims to support the prioritisation of cooling and energy efficiency and then need for action. It will continue to explore strategies and follow the international trends to provide finance for the cooling transition. The AfDB is not only a finance hub but a knowledge hub too.

Mr Sabin Basnyat demonstrated the funding opportunities offered by the Green Climate Fund. Being that largest climate fund in the world, GCF have an updated strategy plan (GCF1) of \$10 billion (USD) fund for clean cooling and all aspects of mitigation and adaptation for a transition to a more sustainable cooling sector. GCF have two approaches that support countries, 1). Enabling the environment in countries through policies, including NCAPs, MEPS, and other facilitating policies that can enhance uptake of clean cooling, 2). Investment so that implementation of strategies can happen. Alongside a three-stage financing window: 1). Readiness which is a \$1 million fund that each country has access to in order to develop policies to get them into the climate space, for example there are seven readiness proposals from countries in the African region who are preparing MEPS policies on refrigeration and air conditioning as well as some in the Asia region. 2) Project Preparation Facility which is \$1.5 million of financing to facilitate projects. 3) Funding Proposals which is funding of up to \$300 million to finance plans in cooling, cold chains, and more.

Mr Basnyat noted that, for GCF, the cooling sector has not only a double effect of energy efficient cooling but also HFC phase-down. Since the Latin America and Caribbean Workshop in September, GCF have secured a project with the World Bank Group for a cooling facility across nine countries globally with four in the African region including: Somalia, Kenya, Malawi, and São Tomé and Príncipe to supply cold chain supply, space cooling, off-grid cooling, and vaccine supply. Mr. Sabin Basnyat explained that GCF want to work with other partners to develop and implement business models and projects that can benefit the recipients long-term. GCF want to work comprehensively with countries to prepare them for the Readiness stage for the implementation of a large-scale funding proposal. Mr. Sabin Basnyat articulated that the development of an NCAP can improve the access to funding the GCF, as funding proposals are driven by the country's ambition, and, the NCAP provides valuable evidence that the country wants to take action.

Closing Remarks from Angèle Luh-Sy

Ms Angèle Luh-Sy, Head of the Sub-Regional Office for West Africa from UNEP closed the session by thanking all colleagues at U4E and the Cool Coalition for organising the Developing and Implementing National Cooling Action Plans in Africa workshop during Africa Climate Week as well as all partners for an engaging discussion from SEforAll, E3G, and AEEE.

This workshop has demonstrated the crucial topic of climate action and sustainable development which urgently requires comprehensive action on cooling. The NCAP is an important starting point to develop and coordinate action on energy efficiency and HFC phase-down as well as to proactively address the growing cooling needs whilst reducing climate impact. The workshop has helped the understanding on how NCAPs can help deliver on the Paris Climate Agreement, SDGs, and the Kigali Amendment alongside pursuing national priorities and socio-economic benefits.

The representatives from Rwanda, Nigeria, Kenya, and South Africa have articulated the steps countries should be taking on cooling action as well as the paramount importance to take action holistically drawing on their experiences. Ms Angèle Luh-Sy thanked them for their continued hard



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work and efforts on leading action towards climate-friendly cooling and development. There is a broad range of support offered by the Cool Coalition with their NCAP Methodology, presented by Cool Coalition and AEEE experts in the workshop, which was developed with UNESCAP, UNEP, UNDP, WBG, Clean Cooling Collaborative, SEforAll, and more.

Ms Angèle Luh-Sy invites all countries in the region to use this methodology to develop NCAPs and connect with the Cool Coalition for support. Further, the financial support required for sustainable cooling development was showcased by the Green Climate Fund and the African Development Bank in the session which demonstrated the financial opportunities open to countries wishing to take action towards climate-friendly cooling and NCAP development which go hand-in-hand with tailored support for individual needs.

The need to act quickly and effectively is critical for the protection of the planet. Bold action is required to break the vicious cycle of cooling and warming. NCAPs can help countries identify priority interventions and adopt a holistic and integrated approach to accelerate the transition to efficient, climate-friendly cooling for all.

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