





# Indonesian National Cooling Action Plan (I-NCAP)

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### Key Role of National Cooling Action Plans



"We need all countries to develop National Cooling Action Plans to deliver efficient and sustainable cooling and bring essential life-preserving services like vaccines and safe food to all people."

- Antonio Guterres, UN Secretary General World Ozone Day 2019

Nationally
Determined
Contributions

Kigali
Amendment
to Montreal
Protocol

Sustainable
Development
Goals





### Why Cooling Action at the National Level

### Cooling sector is characterized by:

- Cross-cutting nature, multiple and intersecting sub-sectors
- Diverse stakeholders, interests and agendas
- Scattered institutional responsibility
- Focus on the equipment-side of the issue, rather than needs for cooling



#### NCAPs are needed to:

- drive alignment and integrative action across multiple sectors of cooling
- link technological choices in cooling sectors to energy efficiency and access to cooling, while reducing environmentally harmful impacts of substances controlled by the Montreal Protocol & maximizing the socio-economic benefits
- integrate existing policies and institutions related to cooling
- bring together different actors required to increase effectiveness of actions through a comprehensive approach



### Foundational Principles for the Methodology

### **Key Aspects**

### **Determine country 's priorities and objectives**

- Facilitating compliance with Kigali Amendment
- Supporting the Sustainable Development Goals
- Energy/ electricity security

### Multi-stakeholder & collaborative development - right from the start.

- Importance of a coordinating entity that will champion the process
- Mechanisms for effective inter-government and triple-sector engagement













# An Integrated Approach Think Holistically, Plan Strategically

#### **Holistic and comprehensive NCAP**

First, reduce the cooling loads to the extent possible

- Such as, through thermally efficient building design and construction, and passive cooling practices in case of the building sector
- Then, serve the cooling loads efficiently & with low-climate impact
  - Such as, with appropriate and efficient cooling equipment and solutions that use environment-friendly refrigerants to deliver the required amount of cooling with less energy and lower overall emissions
- And optimize the cooling operations and behaviors
  - Such as, through good O&M practices, user adaptations etc. to ensure that cooling is delivered only to where and when it is needed

Right-size the demand for cooling and optimize the supply of cooling; apply both strategies in conjunction





### Broad Steps in the NCAP Development Process

## PLANNING & CONTEXTUAL ASSESSMENT

#### **COOLING DEMAND ASSESSMENT**

## INTEGRATION & NCAP SYNTHESIS

\* NCAPs Data Collection Framework

#### COUNTRY-CONTEXT MAPPING

High-level mapping of cooling landscape using existing data & knowledge

### PLANNING AND PREWORK

Establishing core guiding components of the development process, such as broad priorities, key stakeholders, and engagement and governance structures

\* NCAPs Data Collection Framework

#### SECTOR-WISE CURRENT AND FUTURE COOLING DEMAND ASSESSMENT (BUSINESS-AS-USUAL & INTERVENTION SCENARIOS)

Conducting thorough data-driven assessments of the current and future cooling demand for each of the chosen cooling sectors

## SECTOR-SPECIFIC RECOMMENDATIONS & SOLUTIONS

Identifying solutions and future pathways for each of the cooling sectors using the sector-wise analysis

#### INTEGRATION

Consolidate sectorspecific assessments into a cohesive cooling assessment identifying cross-sectoral synergies; establishing NCAP goals and priority areas; obtaining alignment and inter-ministerial buy-in

### IMPLEMENTATION GUIDANCE

Providing big picture guidance on the NCAP implementation process and timelines, governance and monitoring framework, recalibration protocols, etc.





### Planning & Contextual Assessment

Data Collection Framework
- Country Context Mapping

#### **COUNTRY-CONTEXT MAPPING**

- Socio-economic growth drivers for cooling need assessment and demand
- International/ national targets and commitments
- Resources, capabilities and knowledge-base
- Assessing impacts of cooling (Electricity and GHG; socioeconomic)

#### **PLANNING AND PREWORK**

- Identifying nodal government entity
- Multi-stakeholder engagement structure/process
- NCAP development team, teamgovernance & collaboration model, timeline

#### **Intended outcomes:**

- Informs priorities; Highlights potential gaps & opportunities; Guides next steps
- Establishes the board contours and key stakeholders for the Country's NCAP development













### **Cooling Demand Assessment**

#### Data Collection Framework

- Space cooling in buildings
- Food and healthcare cold-chains
- Mobile AC
- Industrial process cooling
- Access to cooling

# SECTOR-WISE CURRENT AND FUTURE COOLING DEMAND (BAU & INTERVENTION SCENARIOS)

- Thorough data-driven assessment of the current cooling demand – setting the Baseline
- Future growth projections: Business-as-usual & Intervention scenarios
- Foundational logic/assumptions behind the key sector-wise recommendations







### SECTOR-SPECIFIC RECOMMENDATIONS & SOLUTIONS

- Derive meaningful recommendations to address the cooling growth in the sector
- Prioritize actions: ease of implementation, impacts/benefits
- Consider synergies with existing policies & programs

#### **Intended outcomes:**

- Baseline for the Country's cooling demand (and impacts)
- An informed view onto the impacts of the future growth, the 'cost of doing nothing' (BAU growth)
- Sector-specific priorities, including quick and high-impact interventions, and the strategic longer-term interventions











### **Integration & NCAP Synthesis**

#### **INTEGRATION**

- Aggregation of the sectorspecific analysis into cohesive country-wide view of cooling
- Synthesizing into NCAP goals and recommendations
- Obtain alignment and interministerial buy-in for crosssectoral synergies







#### **IMPLEMENTATION GUIDANCE**

- Implementation and governance framework
- Monitoring protocol and key success factors
- Process for recalibration of the NCAP

#### **Intended outcomes:**

- Alignment among key stakeholders and government entities
- 'Big' goals of the NCAP
- An actionable roadmap that has the 'ownership' and a governance structure for guiding and monitoring future actions









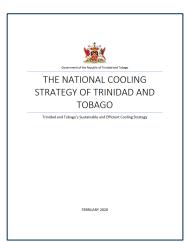
### Cooling global relevance and progress in the globe

#### Published in 2019 and 2020

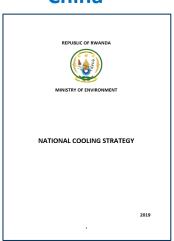




#### India



#### China



Country	Scope	Grantee	Status
Argentina	National	UNIDO	In progress
Bahamas	National	UNE	In progress
Bangladesh	National	UNDP, SEforALL	In progress
Barbados	National	UNE	In progress
Brazil	National	iCS	In progress
Chile	National	UNDP	In progress
China	National	EFC	Published
Cambodia	*Scoping		In progress
Colombia	Sectoral	UNDP	In progress
Costa Rica	National	UNDP	In progress
Cuba	National	UNDP	Published
Dominican Republic	NCP	UNE	In progress
Ghana	NCP	UNDP, SEforALL	In progress
India	National	Govt. of India	Published

Country	Scope	Grantee	Status
Jamaica	National	UNE	In progress
Kenya	National	CLASP	In progress
Lebanon	National	UNDP	In progress
Mexico	National	UNDP	In progress
Nigeria	National	UNDP, SEforALL	In progress
Panama	National	UNDP	Published
Philippines	National	UNDP	In progress
Rwanda	National	UNE	Published
Saint Lucia	National	UNE	In progress
South Africa	National	UNDP, LBNL	In progress
Sri Lanka	National	UNDP, SEforALL	In progress
Thailand	National	WB	In progress
Trinidad &			
Tobago	National	UNDP	Published
Uruguay	National	UNDP	In progress
Vietnam	National	WB	In progress

Trinidad and Tobago

**Rwanda** 





### NCAP Development Process

and indicative timeline for Indonesia



#### Nov-Dec 2020

# **Country Mapping & Governance**

- Collect high-level data to set the context and guide the data collection for the sectors
- Establish NCAP
   Technical WG and
   Advisory Committee
- Determine **the scope** and extent of the NCAP
- Focus to countryspecific priority areas
- Understand socioeconomic implications

#### Nov 2020-Jan 2021

# Sector Data Collection

- Collect data based on the data collection templates provided by ESCAP and UNEP for selected cooling sectors, such as:
  - Space cooling in buildings
  - Cold-chain & refrigeration (food and healthcare)
  - Mobile AC
  - Industrial process cooling

#### Feb-Mar 2021

#### **Data Analysis**

- Combine data results and define the met/unmet national demand
- Project how the demand will grow and develop a scenario of ambitious polices to compare
- Identify suitable and impactful policy interventions
- Prepare national cooling sector assessment for NCAP

#### Mar-April 2021

# NCAP draft and review

- Draft contextual and methodological chapters
- Draft policy recommendations chapters
- Receive the feedback from the TWG & Advisory Committee
- Incorporate the revisions and submit for approval







#### JOIN THE COOL COALITION

The Cool Coalition takes an inclusive view of government action to promote efficient, climate-friendly cooling for all.

# Cool **GOVERNMENT ACTION** Coalition ON EFFICIENT, CLIMATE-FRIENDLY COOLING This guide outlines the opportunity for governments to advance efficient, climate-friendly cooling.

### Partners can access:

- A multi-stakeholder platform
- Advocacy and Awareness-Raising events
- Information and Knowledge Sharing
- Tools for Innovation for action
- Policy and Standards support tools

### How to Join?

- Country Endorsement form
- A contribution to action on cooling







# **THANK YOU**