Indonesian National Cooling Action Plan (I-NCAP)

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December 1st, 2020
"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
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

NCAP development team
Researchers and analysts
Government entities
Private sector & industry
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**
- **COUNTRY-CONTEXT MAPPING**
  - High-level mapping of cooling landscape using existing data & knowledge

**COOLING DEMAND ASSESSMENT**
- **PLANNING AND PREWORK**
  - Establishing core guiding components of the development process, such as broad priorities, key stakeholders, and engagement and governance structures
- **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

**INTEGRATION & NCAP SYNTHESIS**
- **SECTOR-SPECIFIC RECOMMENDATIONS & SOLUTIONS**
  - Identifying solutions and future pathways for each of the cooling sectors using the sector-wise analysis
- **INTEGRATION**
  - Consolidate sector-specific 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.

**MULTI-STAKEHOLDER COLLABORATION**

*NCAPs Data Collection Framework*
**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, socio-economic)

**Planning and Prework**

- Identifying nodal government entity
- Multi-stakeholder engagement structure/process
- NCAP development team, team-governance & 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 sector-specific analysis into cohesive country-wide view of cooling
- Synthesizing into NCAP goals and recommendations
- Obtain alignment and inter-ministerial buy-in for cross-sectoral 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**

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NCAP Development Process
and indicative timeline for Indonesia

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 country-specific priority areas
- Understand socio-economic implications

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

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

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

Nov-Dec 2020
Nov 2020-Jan 2021
Feb-Mar 2021
Mar-April 2021

Indicative timeline for Indonesia:
- Nov-Dec 2020: Country Mapping & Governance
- Nov 2020-Jan 2021: Sector Data Collection
- Feb-Mar 2021: Data Analysis
- Mar-April 2021: NCAP draft and review
The Cool Coalition takes an inclusive view of government action to promote efficient, climate-friendly cooling for all.

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