



Discussion on the National Cooling Plan

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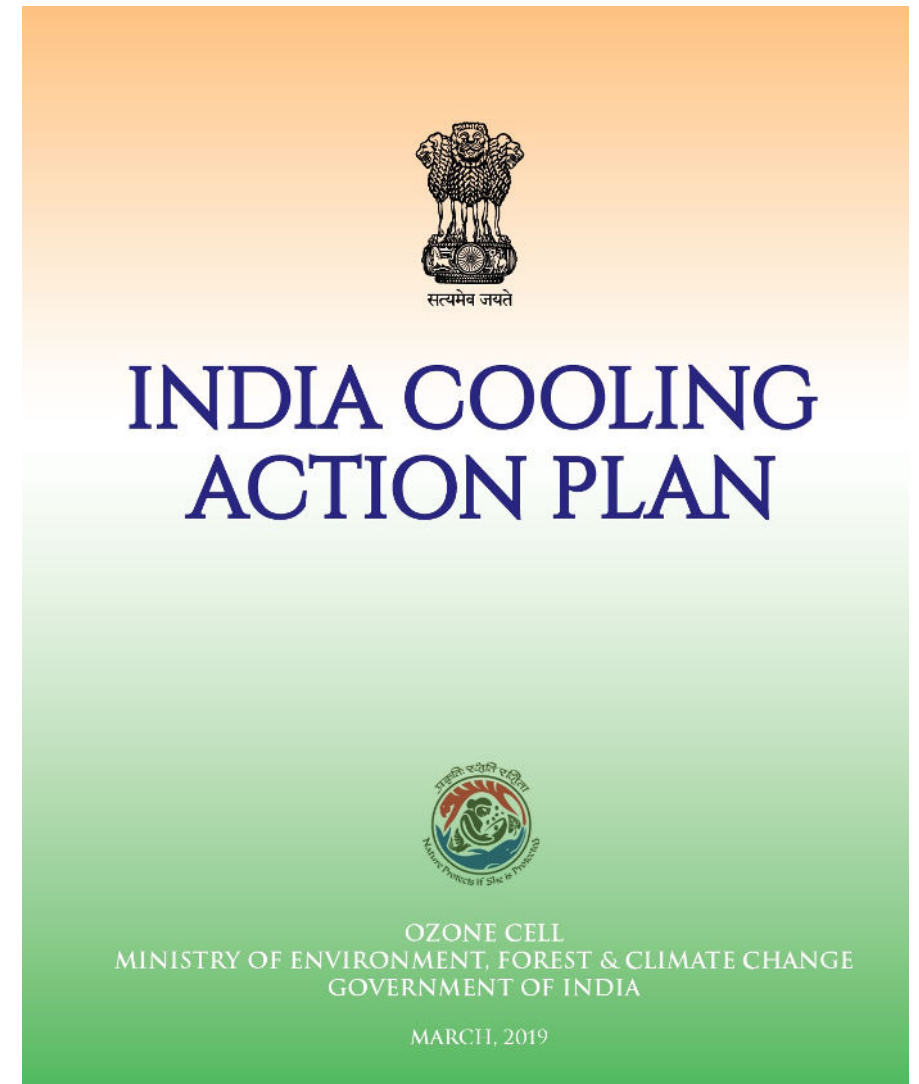
National Capacity Building Workshop

Example table of contents

1. Executive summary
2. Introduction and orientation
 - main purpose for NCAP inception
 - Scope and rationale
 - Definition of key terminologies used in the NCAP such as “baseline”, “short/medium/long terms”,
 - Overview of the market assessment for refrigerators and air conditioners
3. Energy sector overview
 - Energy Policy, Legal and Regulatory Framework, Plans
 - Electricity and Electrification plans and energy efficiency plans
 - Socio economic overview
 - National Climate Change Context
4. NCAP
 - Objectives
 - Cooling demand Assessment (including projections)
 - Assumptions for the projections and source of data used for the projections are mentioned at appropriate places projection of the future cooling requirement
 - MEPS and Label requirements
 - Refrigerant GWP and ODP requirements
 - highlight specific priorities, including the quick wins and high-impact interventions,
 - highlight strategic longer-term intervention opportunities.
 - Prioritised recommendations:
 - Implementation guidance/plan with timelines
5. Conclusions
6. References
7. Annexes

India: National Cooling Action Plan

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Ghana Refrigeration and Air conditioning RoadMap

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Rwanda: National Cooling Strategy

Capacity	Compressor Type	
	Fixed	Variable
Rated Cooling Capacity \leq 4.5 kW	3.80	4.60
4.5 kW < Rated Cooling Capacity \leq 9.5 kW	3.50	4.30
9.5 kW < Rated Cooling Capacity \leq 16.0 kW	3.20	3.90

Grade	Rated Cooling Capacity \leq 4.5 kW	4.5 kW < Rated Cooling Capacity \leq 9.5 kW	9.5 kW < Rated Cooling Capacity \leq 16.0 kW	
A	$6.90 \leq \text{RSEER}$	$6.40 \leq \text{RSEER}$	$5.90 \leq \text{RSEER}$	
B	$6.33 \leq \text{RSEER} < 6.90$	$5.91 \leq \text{RSEER} < 6.40$	$5.36 \leq \text{RSEER} < 5.90$	
C	$5.75 \leq \text{RSEER} < 6.33$	$5.38 \leq \text{RSEER} < 5.91$	$4.88 \leq \text{RSEER} < 5.36$	
D	$5.18 \leq \text{RSEER} < 5.75$	$4.84 \leq \text{RSEER} < 5.38$	$4.39 \leq \text{RSEER} < 4.88$	
E	Variable (split)	$4.60 \leq \text{RSEER} < 5.18$	$4.30 \leq \text{RSEER} < 4.84$	$3.90 \leq \text{RSEER} < 4.39$
	Fixed (split)	$3.80 \leq \text{RSEER} < 5.18$	$3.50 \leq \text{RSEER} < 4.84$	$3.20 \leq \text{RSEER} < 4.39$
	Variable (unitary)	$4.00 \leq \text{RSEER} < 5.18$	$4.00 \leq \text{RSEER} < 4.84$	$4.00 \leq \text{RSEER} < 4.39$
	Fixed (unitary)	$3.50 \leq \text{RSEER} < 5.18$	$3.50 \leq \text{RSEER} < 4.84$	$3.50 \leq \text{RSEER} < 4.39$

Reference Ambient Temperature	Product Category	AEC _{Max} (kWh/year)
25°C	Refrigerators	0.183AV+120
	Refrigerator-Freezers	0.268AV+190
	Freezers	0.238AV+193

Grade	Refrigerators	Refrigerator-Freezers	Freezers
A	$2.00 \leq R$	$2.00 \leq R$	$2.00 \leq R$
B	$1.75 \leq R < 2.00$	$1.75 \leq R < 2.00$	$1.75 \leq R < 2.00$
C	$1.50 \leq R < 1.75$	$1.50 \leq R < 1.75$	$1.50 \leq R < 1.75$
D	$1.25 \leq R < 1.50$	$1.25 \leq R < 1.50$	$1.25 \leq R < 1.50$
E	$1.00 \leq R < 1.25$	$1.00 \leq R < 1.25$	$R < 1.25$

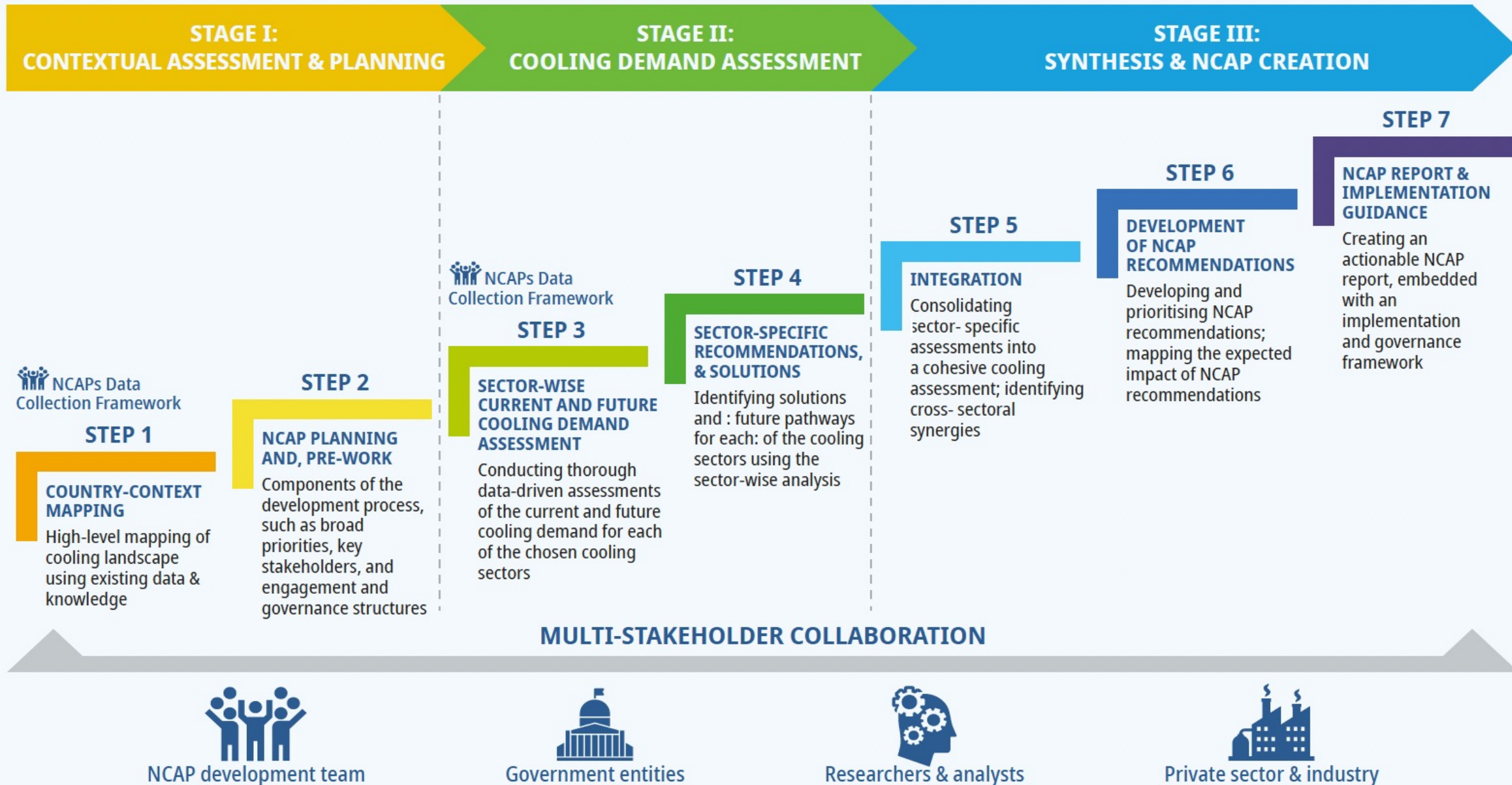
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Open discussion

Stages to develop an NCAP for The Gambia



Stages to develop an NCAP for The Gambia (2)

Data Collection Framework
– Country Context Mapping

STEP 1

COUNTRY-CONTEXT MAPPING

- Socio-economic growth drivers for cooling demand
- International/ national targets and commitments
- Comprehensive view of policies & programmes related to Cooling
- Other factors: technology & market trends, manufacturing
- Resources, capabilities and knowledge-base
- Assessing impacts: Electricity and GHG; socio-economic



What are the useful policies, plans, strategies or reports?

NDC (2021)- Costed
Kigali Ratification; KIP; strategy to be developed
Long term strategy for climate change (2040)
National Climate change policy
SDG targets?
NCAP terminology: Broader
Green Recovery National Development plan (NDP)
National Communication of the Gambia (UNFCCC)-
July 2020
National Energy efficiency strategy (2022-40)
National Energy efficiency Action Plan (2020-30)
Energy Efficiency bill (draft form)
Energy audit of public buildings

Who can be the main actors in providing the reports?

MOPE
MoFEA
Gambia Standard Bureau
MECCNAR
NEA

Stages to develop an NCAP for The Gambia (2)

STEP 2

NCAP PLANNING AND PRE-WORK

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



Nodal Government Entity	NCAP Development Team
Ministry of Petroleum and Energy	Policy Working Group PSC

Stages to develop an NCAP for The Gambia

STEP 3

SECTOR-WISE CURRENT AND FUTURE COOLING DEMAND ASSESSMENT

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



Base Year	Category	Timelines	Intervention scenarios
2023/24	Buildings: Commercial, public, Hotel, health facilities, residential Industrial process cooling Mobile cooling Cold storage (fishing: small and large scale) 3 phase cooling for fresh facilities(containers)	Short term – 2030 Medium term – 2035 Long term – 2040	

Stages to develop an NCAP for The Gambia

STEP 4

SECTOR-SPECIFIC RECOMMENDATIONS & SOLUTIONS

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



Main Activity

Development of recommendations and prioritization of actions – project and relevant ministries

Skills labour

Comments or recommendations

Stages to develop an NCAP for The Gambia

STEP 5

INTEGRATION

- Aggregation of the sector-specific analysis into cohesive country-wide view of cooling
- Identifying cross-sectoral and cross-functional synergies for accelerated action



Comments

Stages to develop an NCAP for The Gambia

STEP 6

DEVELOPMENT OF NCAP RECOMMENDATIONS

- Development and strategic prioritisation of NCAP recommendations
- Mapping the expected impact of the NCAP recommendations



Comments

Stages to develop an NCAP for The Gambia (2)

STEP 7

NCAP REPORT & IMPLEMENTATION GUIDANCE

- Creating a 'live' and actionable NCAP report
- Embedding an implementation and governance framework into the NCAP



Comments



Contact

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Stages to develop an NCAP for The Gambia (1)

Stage	Needed actions	Main actors
Country-context mapping	Data collection on policies, national targets, cooling growth, etc.	Energy and Environment Ministry
NCAP Planning and pre-work	Development of a workplan	Project team and relevant ministries
Sector-wise current and future cooling demand assessment	Modelling of future cooling demand and data collection for current demand	U4E project team with CSA expert
Sector-specific recommendations and solutions	Development of recommendations and prioritization of actions	Project team and relevant ministries

Stages to develop an NCAP for The Gambia

Stage	Needed actions	Main actors
Integration	Aggregation of the sector-specific analysis into cohesive country-wide view of cooling and identification of synergies	Project team and relevant ministries
Development of NCAP recommendations	Development of recommendations and mapping of expected impact	Project team and relevant ministries
NCAP report and implementation guidance	Writing of the report	Project team