



ADAPTING TO RISING TEMPERATURES: Mainstreaming Sustainable Cooling in NDCs

**62nd Sessions of the
UNFCCC Subsidiary Bodies**

**23 June 2025
10:30 – 11:45 CEST**



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WELCOME REMARKS



Amanda McKee

Director for Knowledge and Learning
NDC Partnership

OPENING KEYNOTE

The Global Heat Challenge



Vintura Silva

Team Lead, NDC Technical Support Unit,
Mitigation Division, UNFCCC

SPECIAL REMARKS

High Ambitious NDC3.0



Amr Seleem

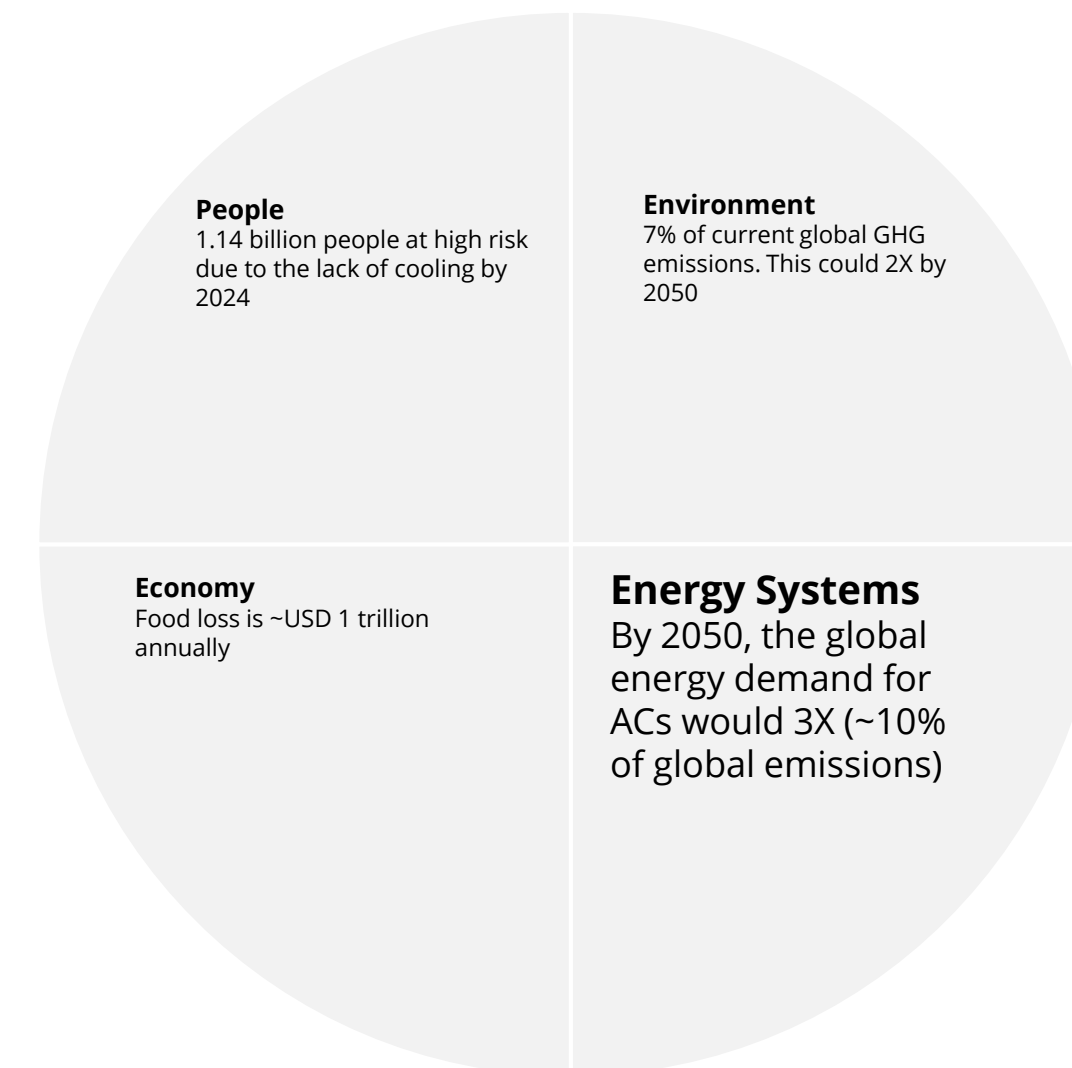
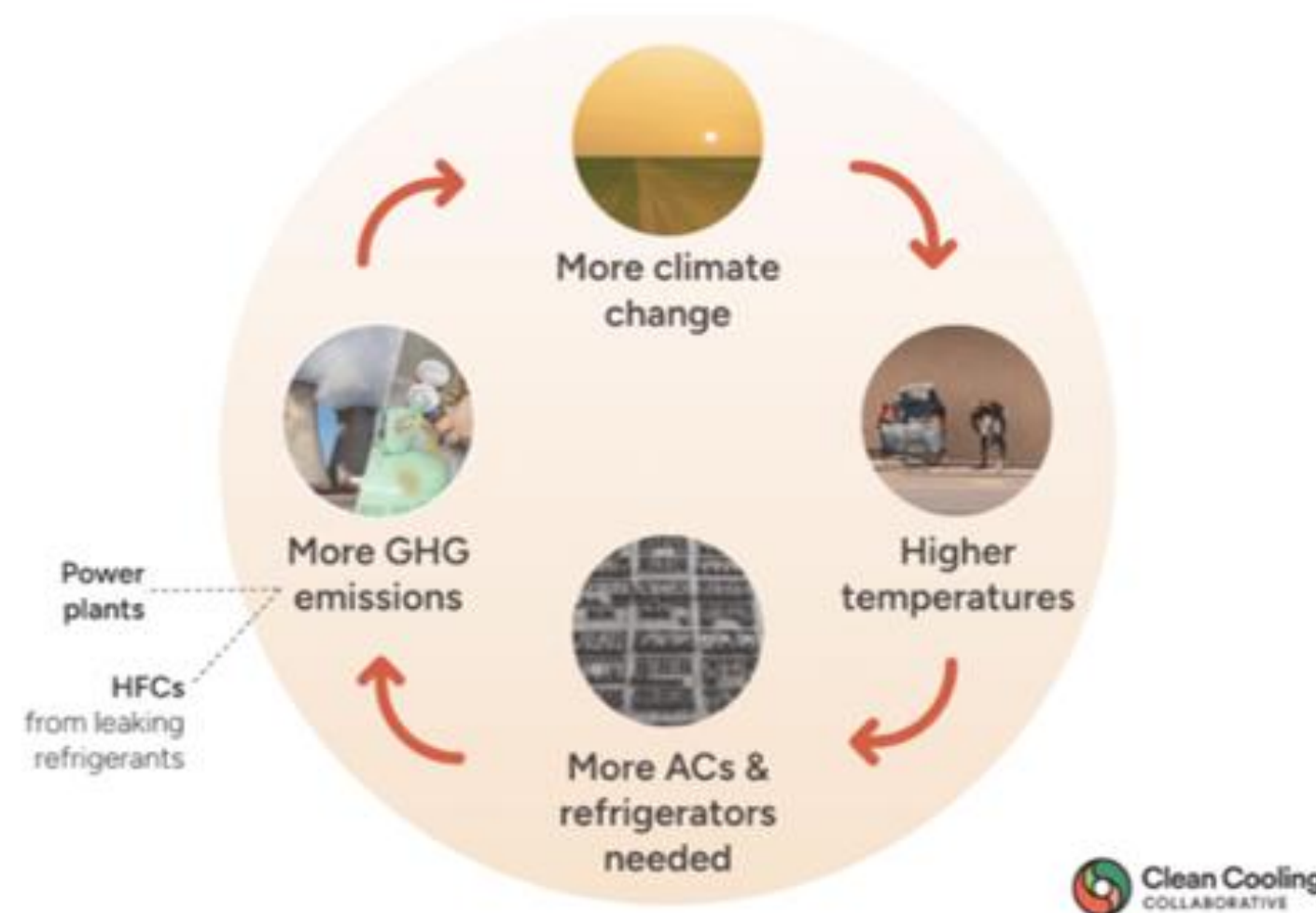
Country Engagement and Climate Policy Lead
UNEP Cool Coalition

PRESENTATION

Launch of the NDC Cooling Guide

Cooling and Climate: A Vicious Cycle

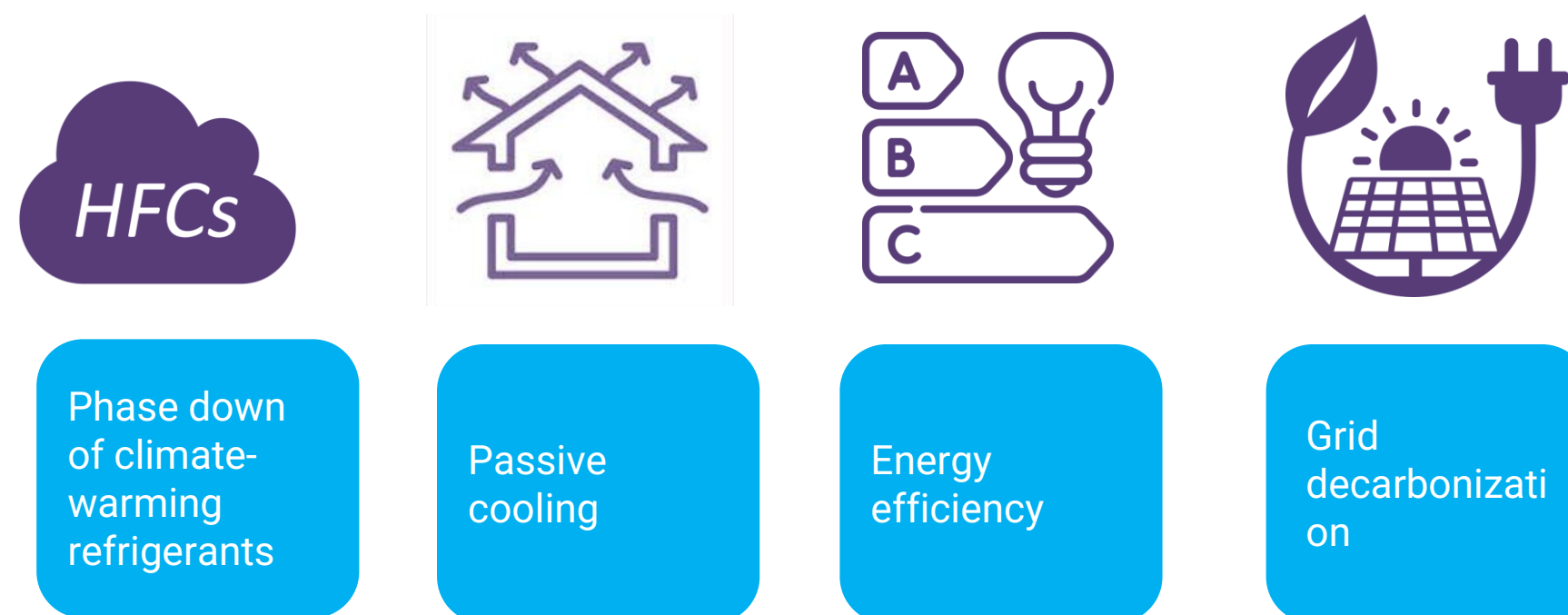
The Vicious Cooling Cycle



Breaking this cycle with sustainable cooling is urgent.

Why are mitigation targets important?

Global



- Implementing 3 key actions – passive cooling, best practices could avoid up to **60% of projected cooling-related** greenhouse gas emissions
- Equivalent to **3.8 billion tons of CO₂eq emissions** – 10% of project 2050 emissions

Examples

Indonesia	NCAP aims to avoid 128 MtCO ₂ e by 2030
India	NCAP aims to reduce 118 MtCO ₂ e by 2040
European Union	F-gas regulations aim to cut emissions by 310 MtCO ₂ e by 2050
Kenya	NCAP aims to cut 23 MtCO ₂ e by 2050

Why are adaptation targets important?



Food, Nutrition and Agriculture

Cold chains for transportation and storage of perishable, nutritious crops to prevent food waste.



Health Services

Cold chains for transportation and storage of vaccines and blood products. Space cooling of health facilities to support better overall care and patient recovery.



Human Comfort and Safety

Cooling of homes and workplaces for health and wellbeing, leading to improved economic and social outcomes.



Cities

Reducing the urban heat island effect (UHIE), which can cause temperatures to be 1°C to 4°C higher than surrounding areas.



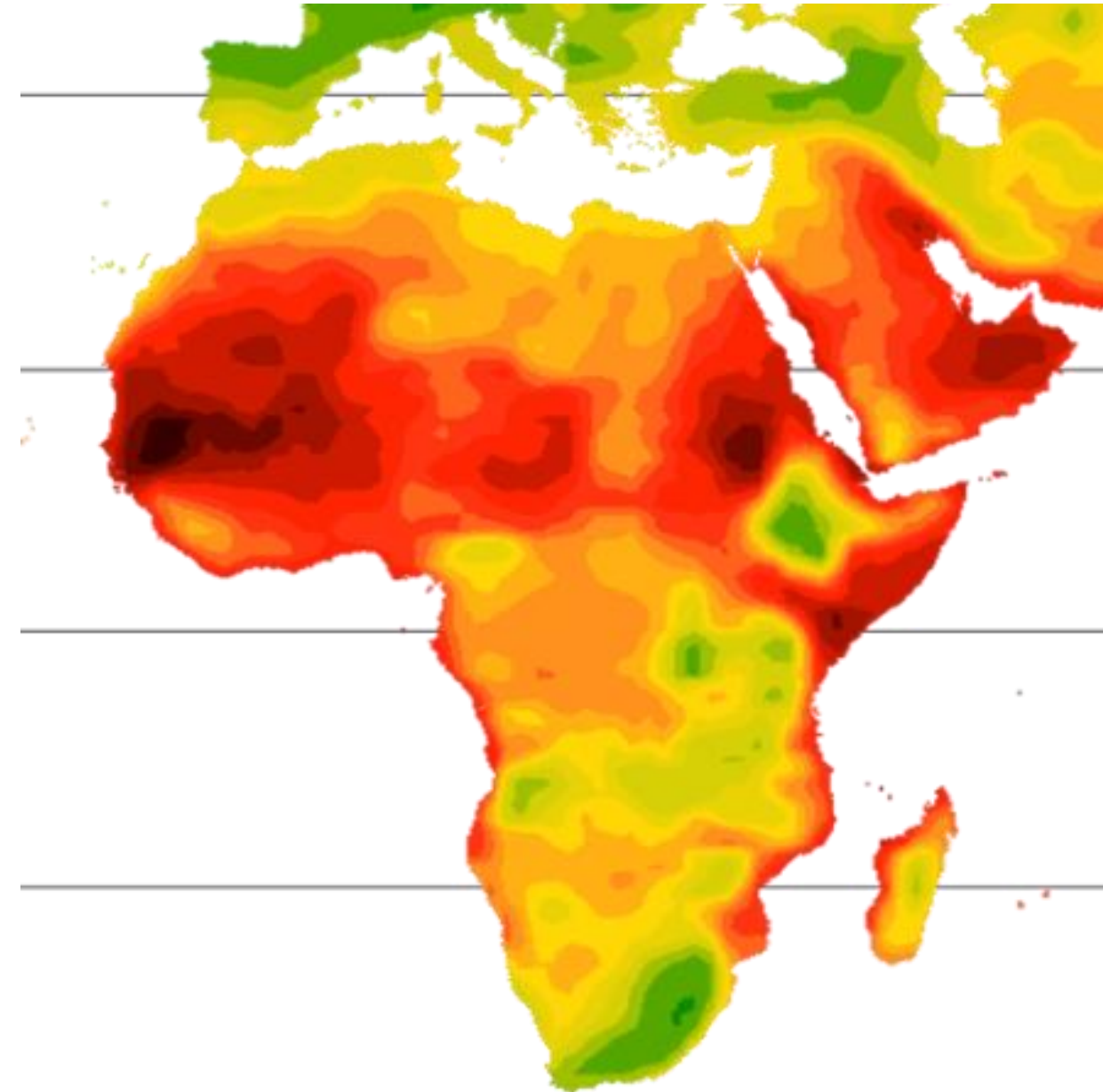
Who is at risk due to the lack of cooling?

In a warming world, access to cooling is not a luxury. It is an issue of equity, necessary to adapt and thrive.

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People at high risk for the
lack of cooling

**Do you know the cooling access gap
in your country?**

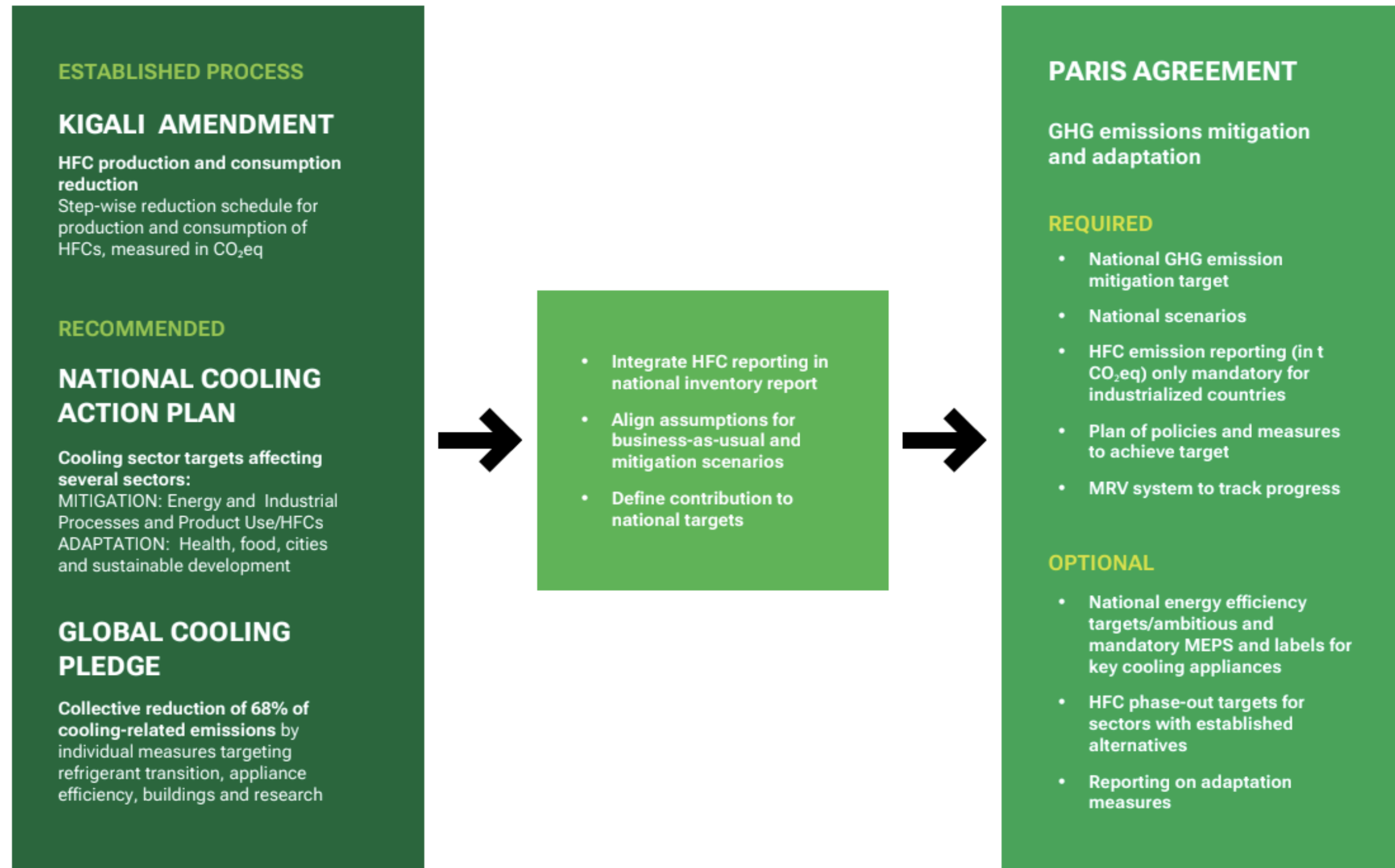


Part 1: Mitigation Measures into NDCs

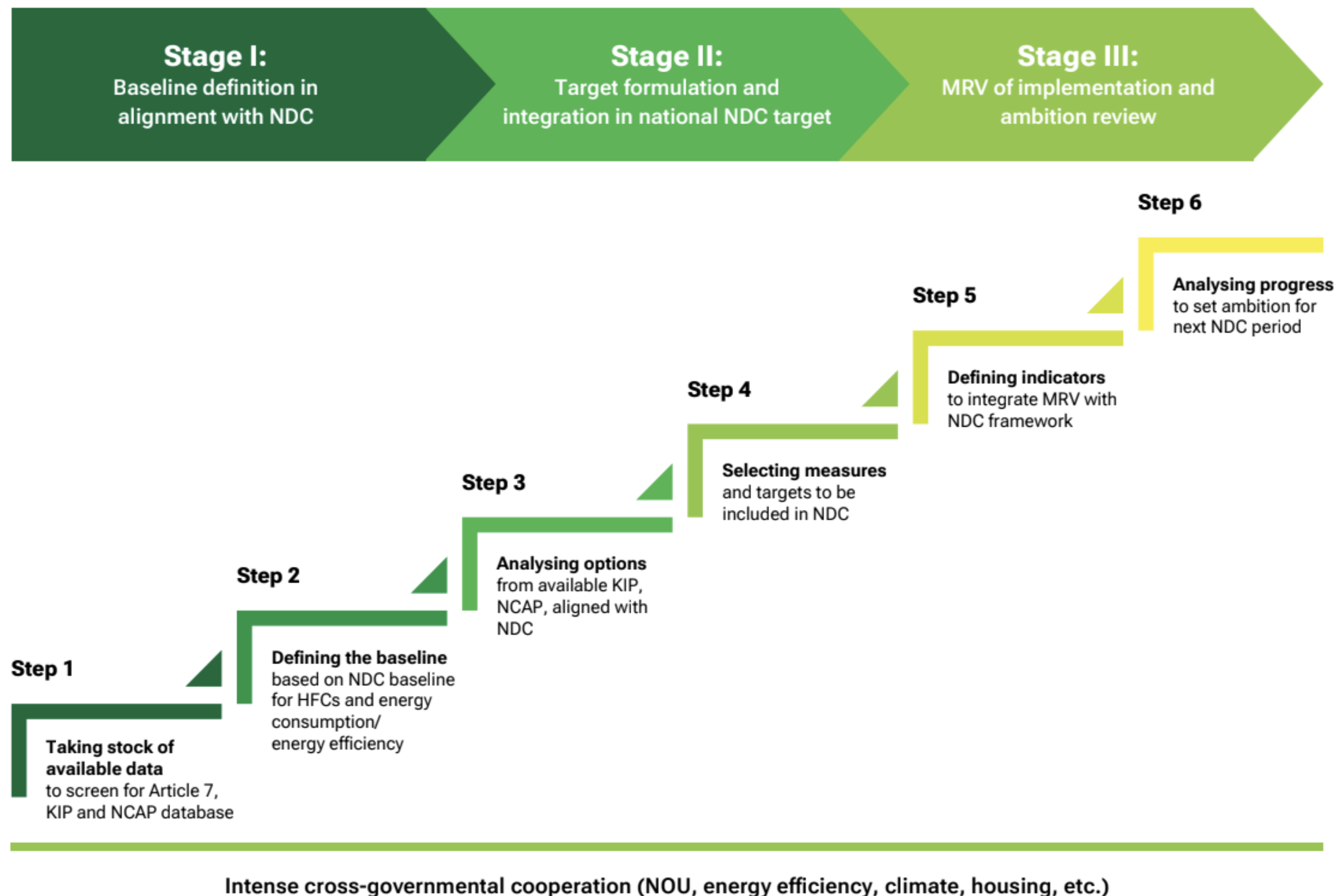
The cooling sector is multi-dimensional. Starting with key guiding questions can help surface the suitable leverage points and priorities for the country.

- What are the unique drivers and/or needs in your country? For example:
 - UAE: Driven by the need to reduce building sector energy consumption and emissions
 - Nigeria: Driven by need for adaptation to rising temperatures
 - Grenada: Bold national vision (world's first HFC-free island nation)
- How can your country balance the need for increased cooling access with emission reduction goals?
- What existing governance structures could be leveraged to integrate cooling into your NDC?
- What data gaps exist in your country regarding cooling demand and access?

Translate cooling targets into NDCs Commitments

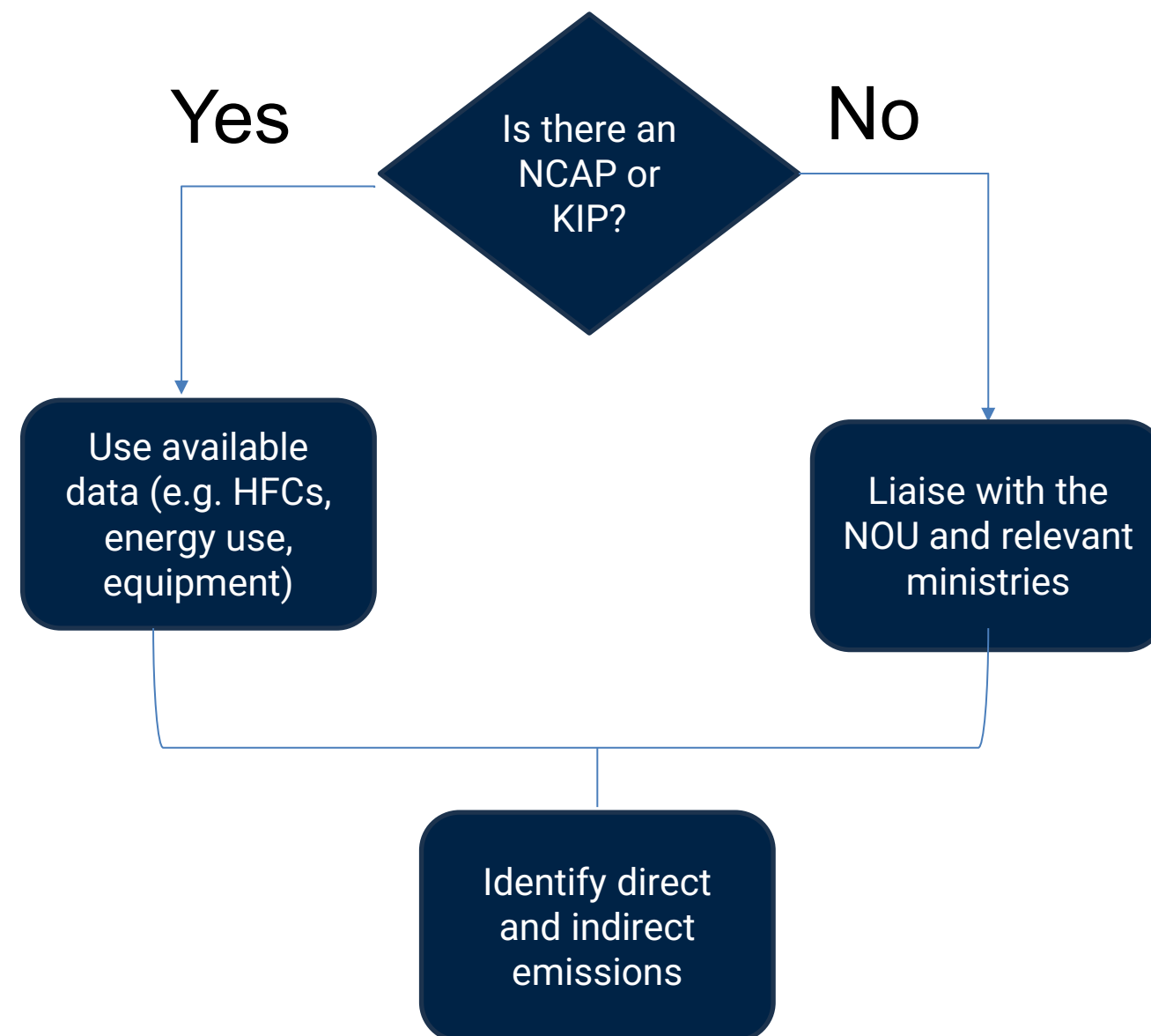


Methodology Guide for Mitigation



Stage 1: Baseline definition (1/3)

STEP 1: TAKING STOCK OF DATA



- KIP focuses on reducing HFC emissions in line with the Kigali Amendment
- NCAP addresses both direct (HFCs) and indirect (energy use) emissions and includes broader goals like equitable access to cooling.

Stage 1: Baseline definition (2/3)

STEP 1: BASELINE DEFINITION (DIRECT)

Emissions from HFCs	
NCAP data is not available	NCAP data is available
Use Article 7 data to report on HFC emissions	Ensure that NCAP assumptions are aligned with national scenario assumptions
Include KIP targets in NDC	Ensure NCAP data is updated regularly
Track progress using KIP reporting	Use the same data base for NDC cooling targets
Work on NCAP data to have a disaggregated data set	Ensure integration of NCAP data with Hydrofluorocarbons Phase Out Management Plan (HPMP)/KIP/Article 7 data
Start the process again with next NDC update	Maintain MRV system to track progress based on the same data set
	Regularly revisit and improve data system

KEY CONSIDERATIONS:

- **Align with national targets:** Use the same baseline year and assumptions as your NDC and GHG inventory.
- **Leverage Kigali data:** Article 7 HFC reports are a primary source for setting baselines.
- **Report non-cooling HFCs separately:** Include uses like firefighting and foams; some may count toward NDC mitigation via KIP.

Stage 1: Baseline definition (3/3)

STEP 1: BASELINE DEFINITION (INDIRECT)

Emissions from electricity use

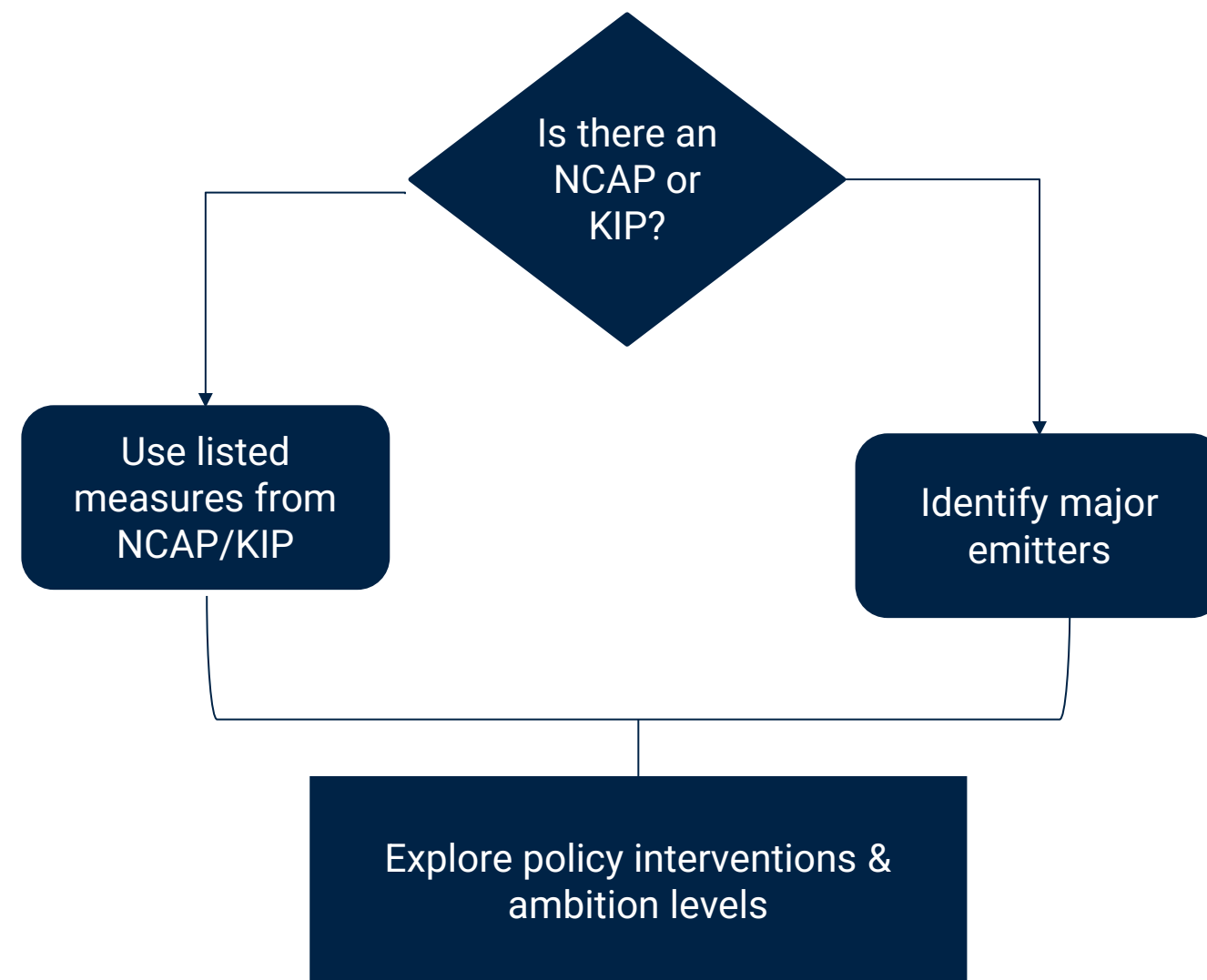
NCAP data is not available	NCAP data is available
Work on NCAP data to have a disaggregated data set	Ensure that NCAP assumptions are aligned with national scenario assumptions
Ensure that NCAP assumptions are aligned with national scenario assumptions	Ensure plausibility of modelled cooling sector's share of total energy consumption
Start the process again with next NDC update	Ensure NCAP data is updated regularly
	Use the same data base for NDC cooling targets
	Maintain MRV system to track progress based on the same data set
	Regularly revisit and improve data system

KEY CONSIDERATIONS:

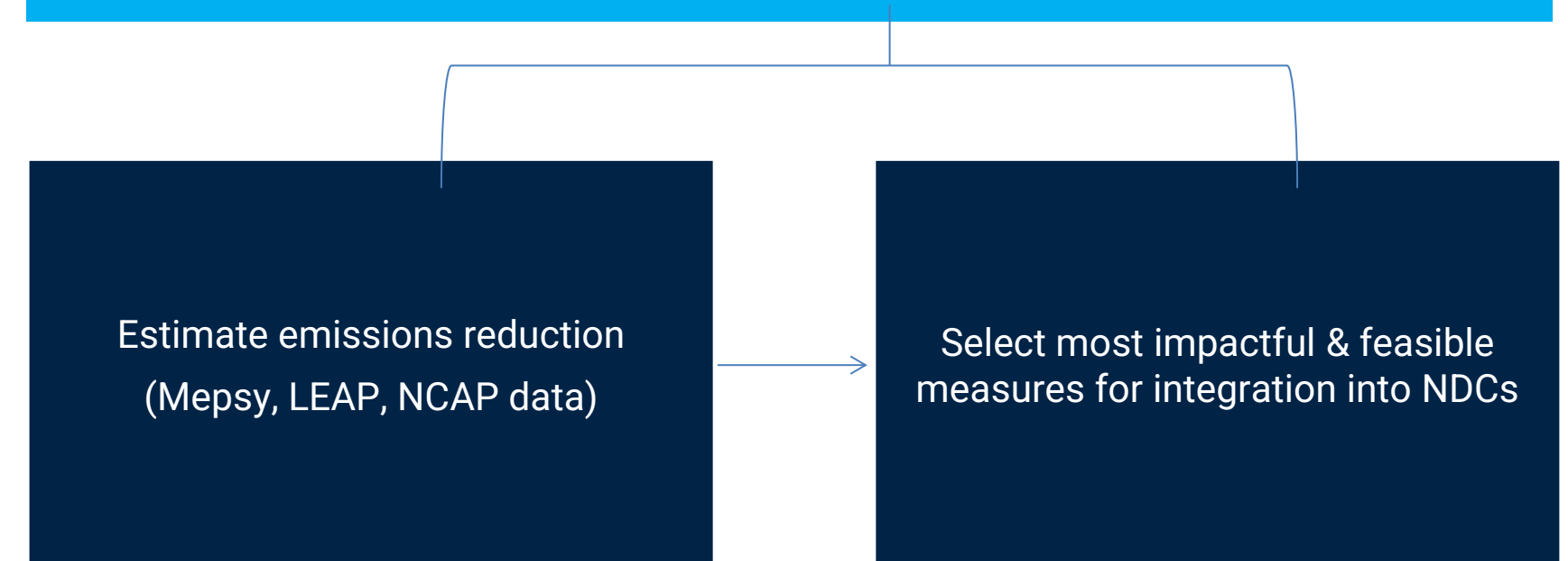
- **Ensure consistency:** Align cooling energy data with national scenarios to support accurate emissions tracking.
- **Use existing sector analysis:** Build on any available studies of energy demand (e.g. for lighting, refrigeration, AC) to improve the baseline.

Stage 2: Target Formulation

STEP 3: ANALYZING OPTIONS

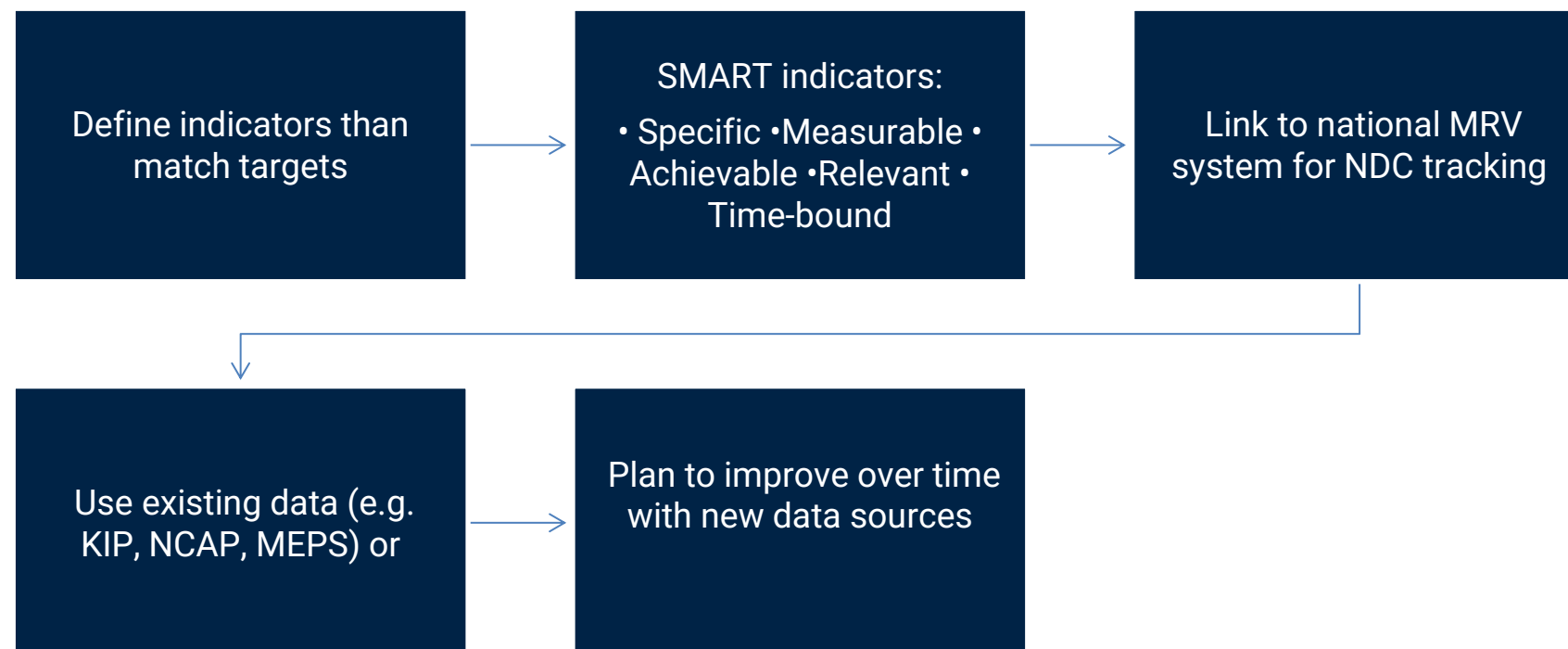


STEP 4: SELECTING MEASURES

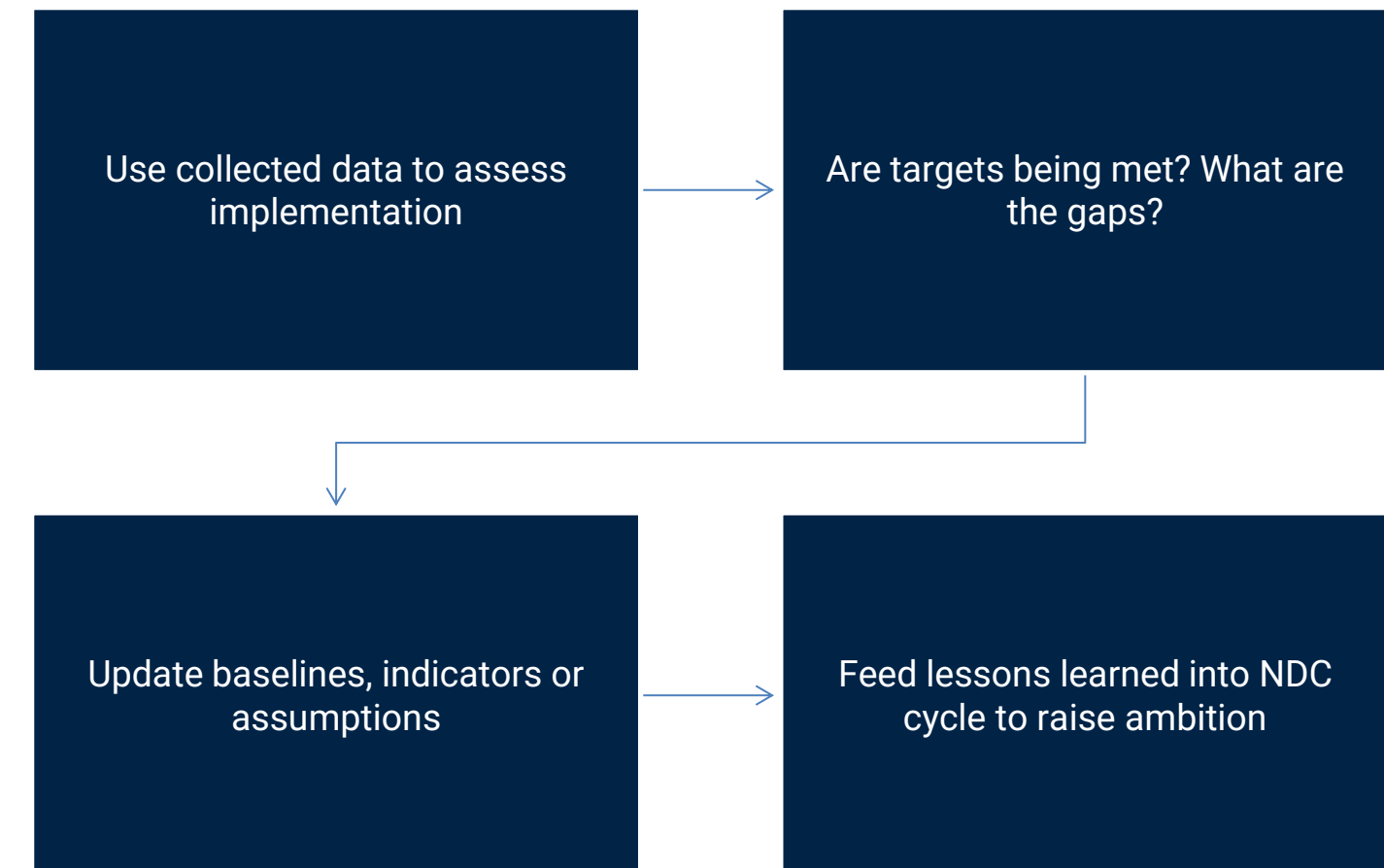


Stage 3: MRV of Implementation and Ambition Review

STEP 5: DEFINING INDICATORS



STEP 6: ANALYZING PROGRESS

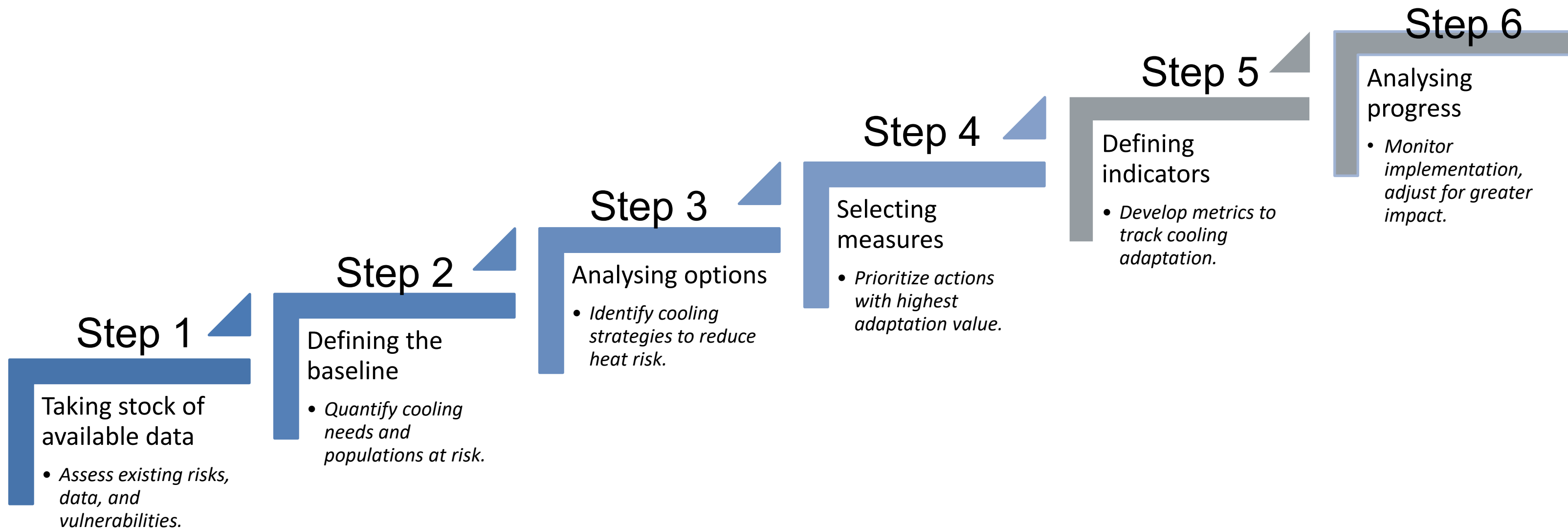
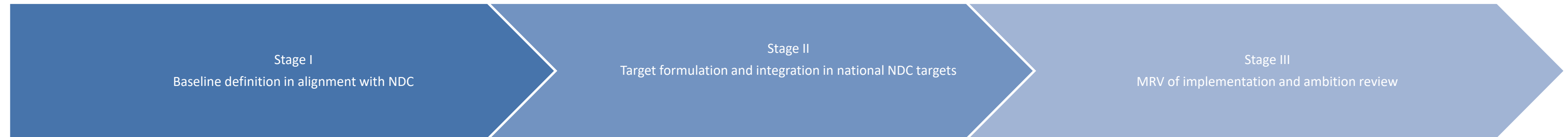


Part 2: Adaptation Measures into NDCs

Starting with key **GUIDING QUESTIONS** can help surface the suitable leverage points and priorities for the country.

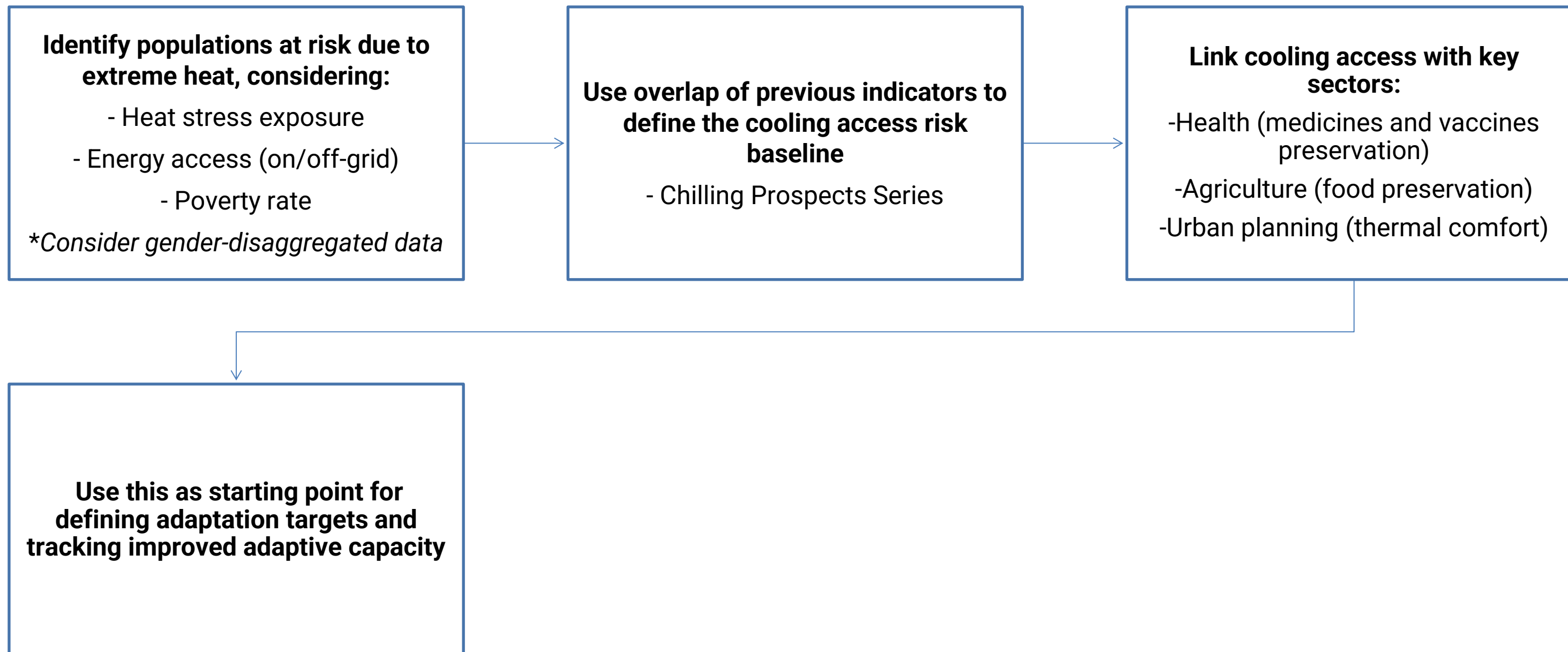
- How well understood is the lack of access to cooling in your country? What data gaps exist?
- What are the most vulnerable sectors in your country that would benefit from cooling adaptation measures?
- How can your country balance the need for advancing cooling access for *tomorrow* with the urgency of providing adaptation solutions *today*?
- What resources, networks and innovative models can be leveraged to achieve the necessary speed and scale for advancing adaptation solutions where they are needed the most: the poorest of the poor

Methodology Guide for Adaptation



Stage 1: Baseline definition

STEP 1: TAKING STOCK OF DATA



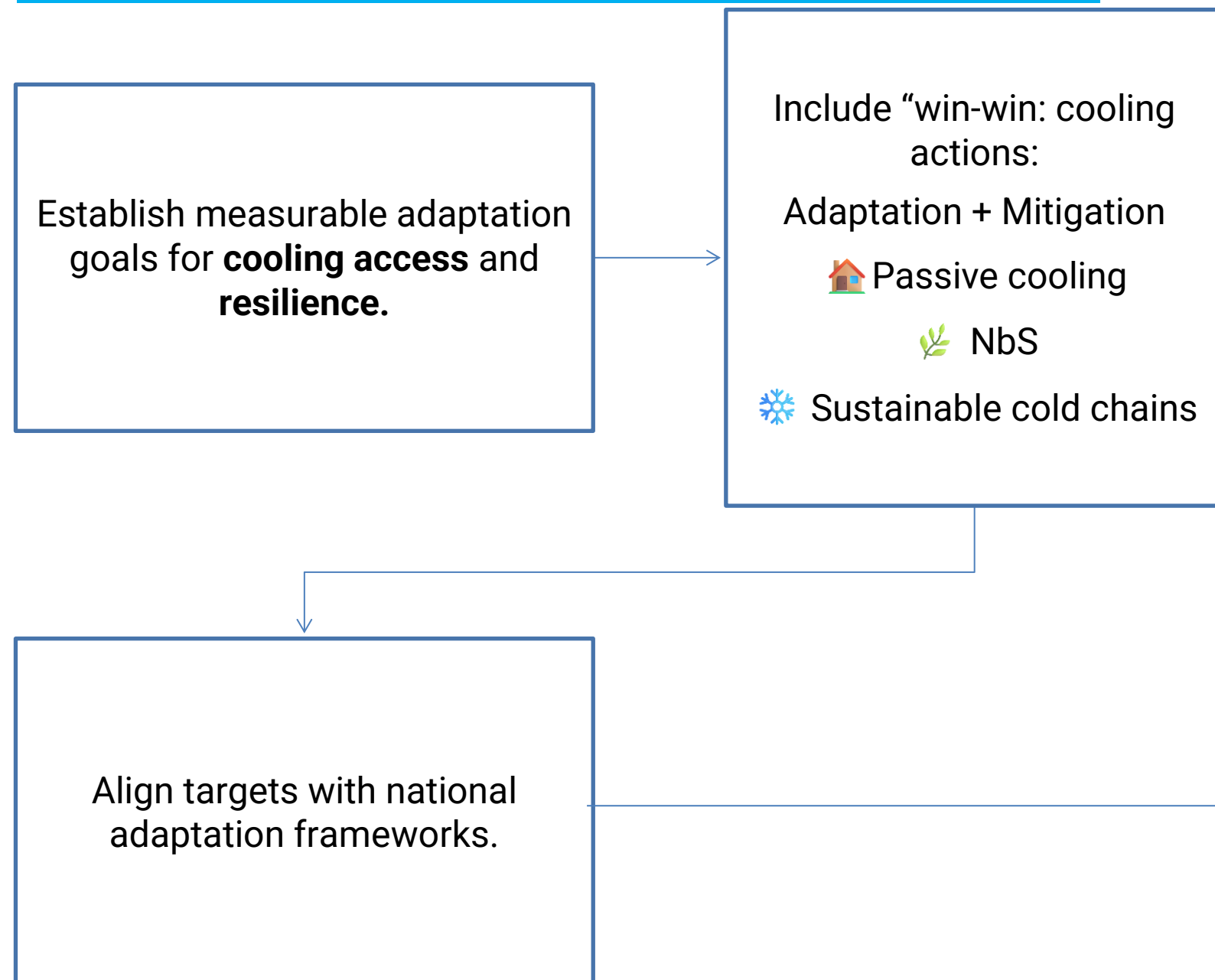
Stage 1: Baseline definition

STEP 2: DEFINING THE BASELINE

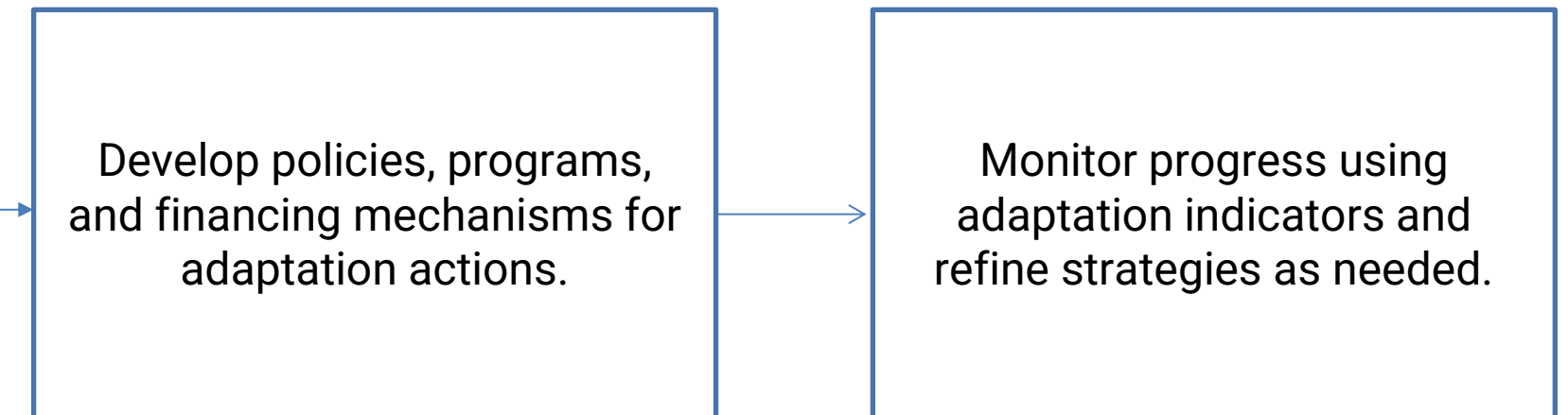
Adaptation baseline	Population Group/Cooling needs	 Comfort & Safety	 Food & Nutrition	 Health & Care
	Rural Poor (high risk)	No fans or insulation	No cold chains for crops or livestock	No cold chains for vaccines or medicines
	Urban Poor (high risk)	Poor housing, intermittent power	Inadequate food preservation infrastructure	Poorly equipped and built urban clinics
	Lower-Middle Income (medium risk)	Low-cost, inefficient cooling devices	Variable quality and efficiency of cold chain access	Variable quality and efficiency of cold chain access

Stage 2: Target Formulation

STEP 3: ANALYZING OPTIONS



STEP 4: SELECTING MEASURES

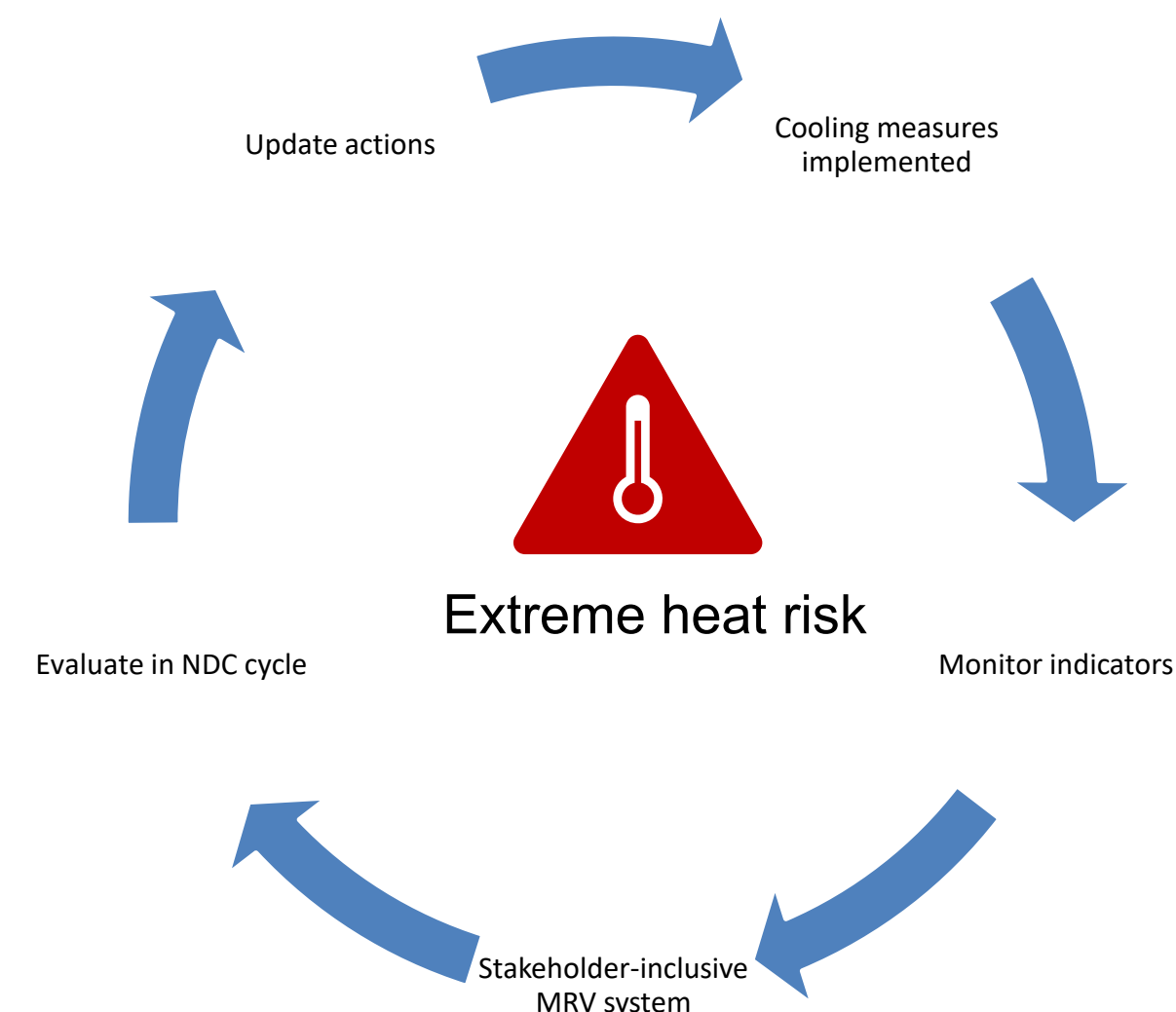


Stage 3: MRV of Implementation and Ambition Review

STEP 5: Defining Indicators

			
	Human Comfort and Safety	Food, Nutrition, and Agriculture	Health Services
Primary Need-based Indicators	• % of buildings supported by passive cooling • Heat-related illness/mortality • % of households owning cooling devices	• % of households with access to refrigeration • % of food loss	• % and # of vaccines, medicines and medical products lost annually • # of health lacking cold storage facilities
Secondary Need-based Indicators	• Workdays/GDP lost annually due to heat stress • % of the urban population with access to public green spaces	• Volume and proportion of food loss and waste in the value chain • % of population facing undernourishment or food insecurity	• % of the target population covered by all vaccines included in the national program

STEP 6: Analysing progress



Prioritize gender-disaggregated indicators to track equitable access to cooling and adaptation benefits.

Support Package

Are you a Global Cooling Pledge Signatory? Yes, then please reach out to the Cool Coalition Secretariat to schedule a call to arrange the NDC support to help you integrate cooling measures into the upcoming NDC submission.

Our support package for Global Cooling Pledge Signatories includes:

- Support to compile and **collect** high-level cooling sub-sectoral data.
- Assess the GHG impact of sustainable cooling and develop long-term scenarios to provide recommendations for relevant NDC areas and assisting in formulating both qualitative and quantitative NDC targets for mitigation and adaptation.
- Support coordination among sectoral technical lead agencies (as per IPCC sectors, including Energy, IP, etc.)
- The NDC Cooling Working Group members can provide guidance and advisory support

Means of support are as per country requirement and resource availability can include local and international expert support to provide technical and coordination assistance.



Access here:



In collaboration with:

Panel Discussion

Leadership on Cooling, Adaptation, and NDC Integration



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Moderator

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CLOSING REMARKS



THANK YOU!

www.coolcoalition.org

