

# Unpacking the Global Water- Sanitation Resilience Target

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# Metrics for the sustainable development and climate resilience frameworks

**Paris Agreement Article 7:** global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to ....

... Contributing to sustainable development

... and ensuring an adequate adaptation response

THE GLOBAL GOALS FOR SUSTAINABLE DEVELOPMENT



## THE UAE FRAMEWORK FOR GLOBAL CLIMATE RESILIENCE

- A. CLIMATE RESILIENT WATER-SANITATION
- B. CLIMATE RESILIENT FOOD-AGRICULTURE
- C. CLIMATE RESILIENT HEALTH SYSTEMS
- D. CLIMATE IMPACTS ON ECOSYSTEMS-BIODIVERSITY
- E. CLIMATE RESILIENT INFRASTRUCTURE- HUMAN SETTLEMENTS
- F. CLIMATE IMPACTS ON POVERTY ERADICATION- LIVELIHOODS
- G. CLIMATE IMPACTS ON CULTURAL HERITAGE

**Note:** many interlinkages not shown in the diagram

# Unpacking the water target. Step1: Literature review around key concepts and definitions

## WATER REFERENCES IN THE UAE FRAMEWORK

Par 9a

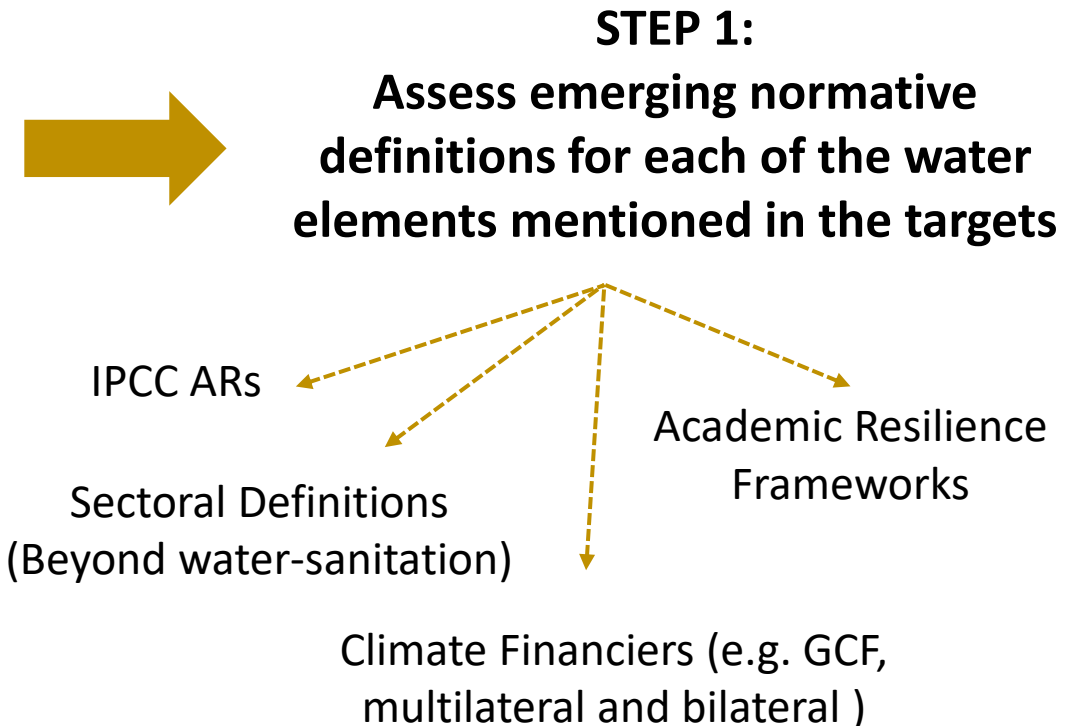
- Significantly reducing **climate-induced water scarcity**
- Enhancing **climate resilience to water-related hazards**
- Towards a **climate-resilient water supply, climate-resilient sanitation**
- Towards access to safe and affordable **potable water for all**

Par 9d

- [...] Accelerating [...] management, enhancement, restoration and conservation and the protection of [...] **inland water** [...] ecosystems.

Par 18

- **climate-informed transboundary management** and cooperation on global adaptation solutions



# On-going work towards normative definitions in the GGA water elements

**Example: Building a consensus and agreeing on what constitutes a “climate resilient water supply and climate resilient sanitation system”**

- **Climate risk analysis** conducted
- **Preventive measures considered** to cope and respond to climate shocks and stresses
- **Resilient management/service delivery models in place**
- **Environmental considerations** for sustainable use, protection and management of water resources in place
- **Social considerations** are observed
- **Contributions to community resilience** income generation, food, energy and ecosystem resilience



# Step 2: Mapping of existing related targets / indicators

## STEP 2: Initial mapping of existing indicators

### WATER REFERENCES IN THE UAE FRAMEWORK FOR GLOBAL CLIMATE RESILIENCE

- Significantly reducing climate-induced water scarcity
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- Towards a climate-resilient water supply, climate-resilient sanitation
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- [...] Accelerating [...] management, enhancement, restoration and conservation and the protection of [...] inland water [...] ecosystems.
- climate-informed transboundary management and cooperation on global adaptation solutions

### Contributing to sustainable development ...

#### SDG 6 CLEAN WATER AND SANITATION TARGETS

- 6.1 Provide safe and affordable drinking water
- 6.2 End open defecation and provide access to sanitation and hygiene
- 6.3 Improve water quality, wastewater treatment and safe reuse
- 6.4 Increase water-use efficiency and ensure freshwater supplies
- 6.5 Implement Integrated Water Resource Management
- 6.6 Protect and restore water-related ecosystems

### Contributing to Disaster Risk Reduction ...

#### SENDAI FRAMEWORK TARGETS

- Target E. increase the number of countries with national and local disaster risk reduction strategies
- Target D. reduce disaster damage to critical infrastructure and disruption of basic services

#### EARLY WARNING SYSTEMS FOR ALL Initiative

### Contributing to Biological Diversity ...

#### KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK TARGETS

- Target 2: areas of degraded inland water are under effective restoration
- Target 3: inland water effectively conserved and managed
- Target 11: restore, maintain and enhance nature's contributions to people, including water ecosystem functions and services

# Step 3: Identifying current gaps in indicators and data and on-going work to address them

Example: adjusting existing indicators for tracking the reduction of “climate-induced water scarcity”

## Existing indicators:

- **SDG Indicator 6.4.2:** “Level of water stress: freshwater withdrawal as a proportion of available freshwater resources”.
- **SDG Indicator 6.4.1:** “Change in water-use efficiency over time”.
- **SDG Indicator 6.5.1:** “Degree of integrated water resources management implementation (0-100)”.
- **SDG Indicator 6.3.1:** Proportion of domestic and industrial wastewater flows safely treated.
- **SDG Indicator 6.3.2 :** Proportion of bodies of water with good ambient water quality.

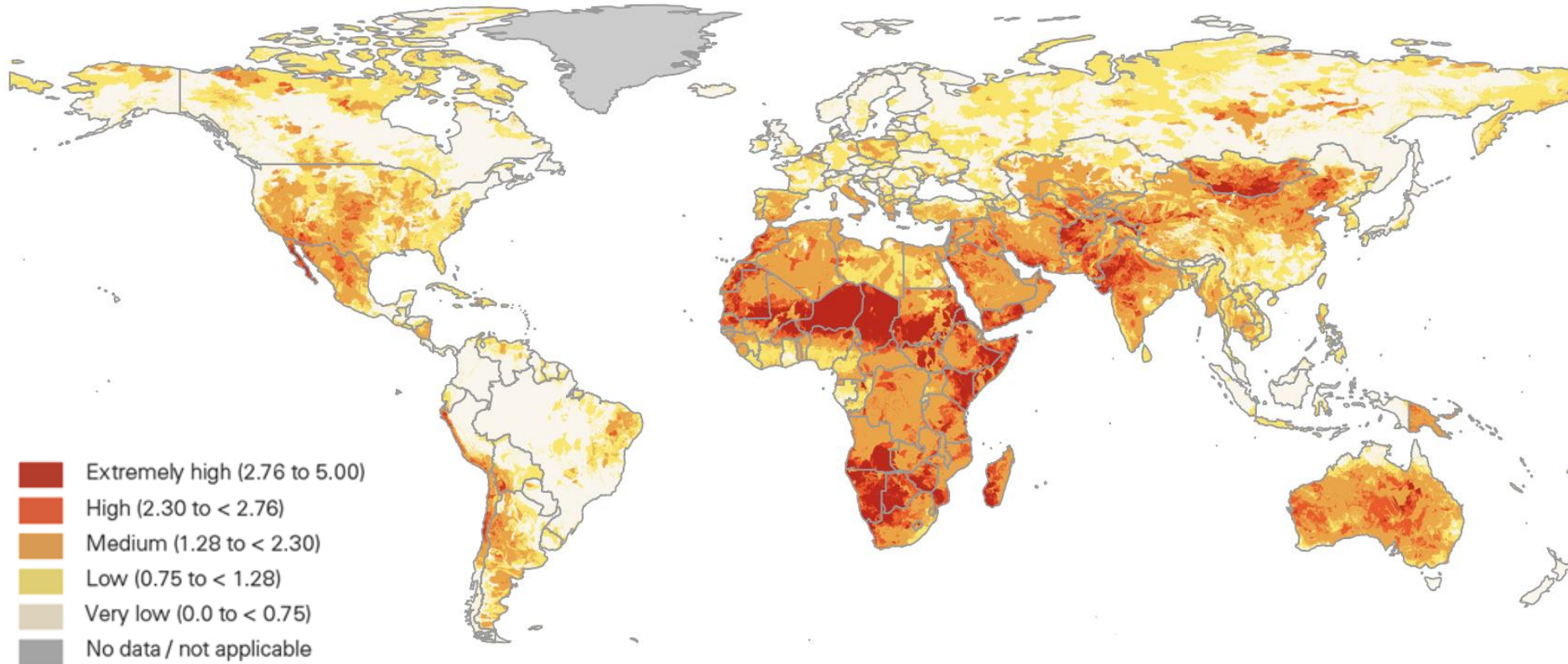
Existing indicators measure progress towards enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, as well as contribution to sustainable development

HIGH EXPOSURE TO CLIMATE HAZARDS (eg. droughts, floods, etc)

**New indicators suggested by WMO:** Climate change influence in the hydrological cycle (e.g. changes in river discharge, reservoir inflow, groundwater levels, soil moisture and evapotranspiration, etc.)

# Overlapping existing water and climate information

Example of mapping areas of high or extremely high water vulnerability



**Overlapping:**

- Drought events
- Water stress
- Groundwater availability
- Interannual water availability
- Seasonal water variability
- Drinking water access levels
- Population density

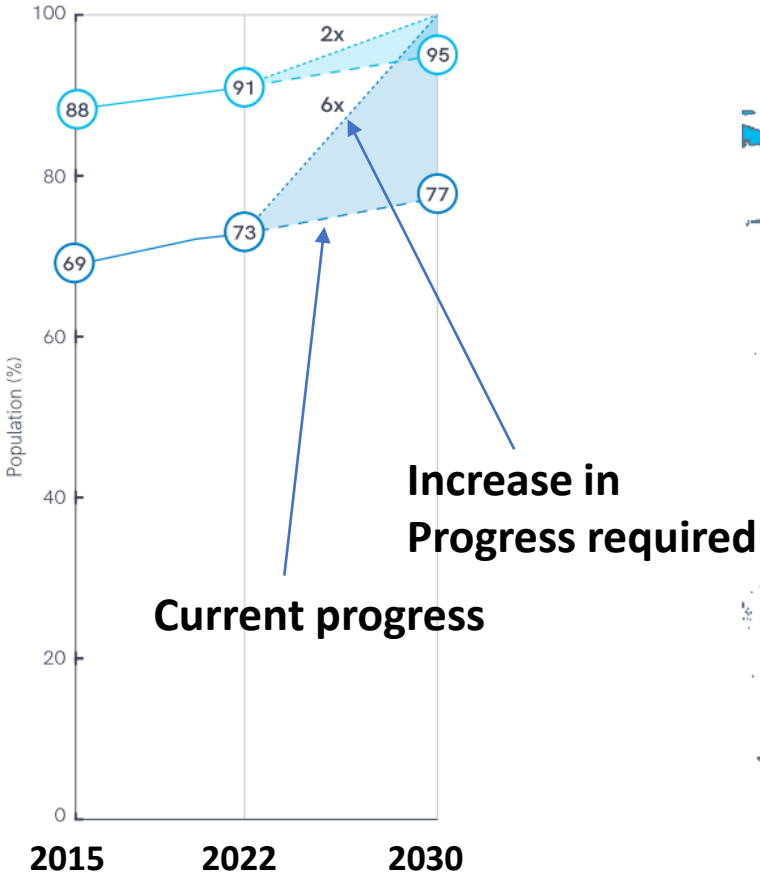
**Source:** UNICEF, Climate Changed Child, 2023

**Data:** Water stress, interannual variability, seasonal variability, and groundwater table decline were derived from the WRI Aqueduct Water Risk Atlas, drought events derived from the UNEP Global Data Risk Platform, and drinking water service level data were derived from the Joint Monitoring Programme (JMP) data set.

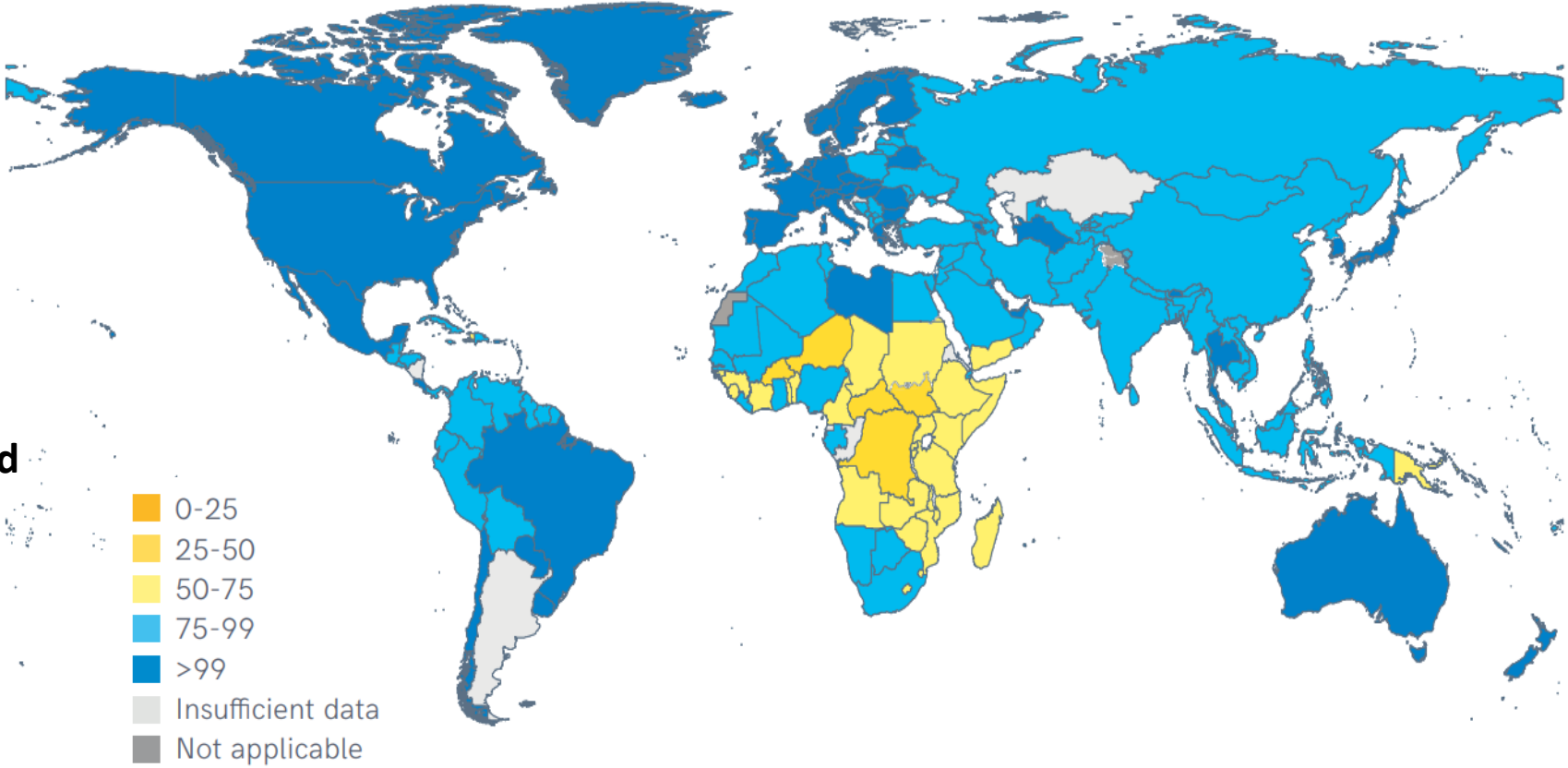
# By 2030 access to safe and affordable potable water for all

Existing indicator for this SDG+GGA water target monitors already progress (no adjustment needed)

DRINKING WATER



Proportion of population using a basic water service in 2022 (%)



Source: Joint Monitoring Programme. Progress On Household Drinking Water, Sanitation And Hygiene 2000-2022

■ At least basic ■ Safely managed

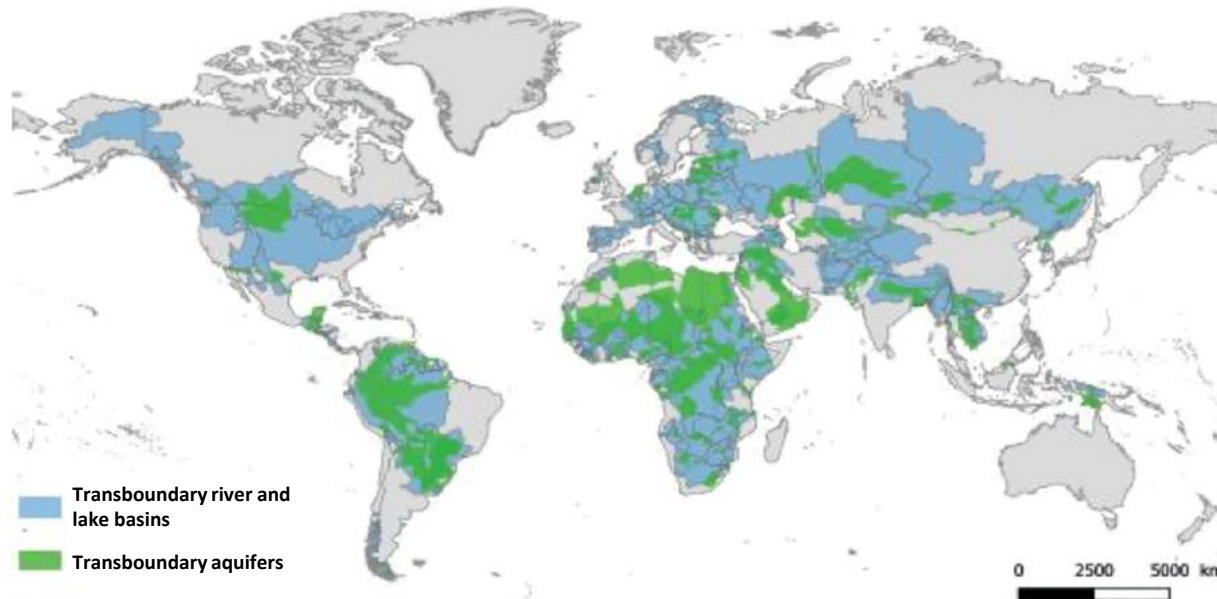


# On-going work to create or adapt resilient indicators

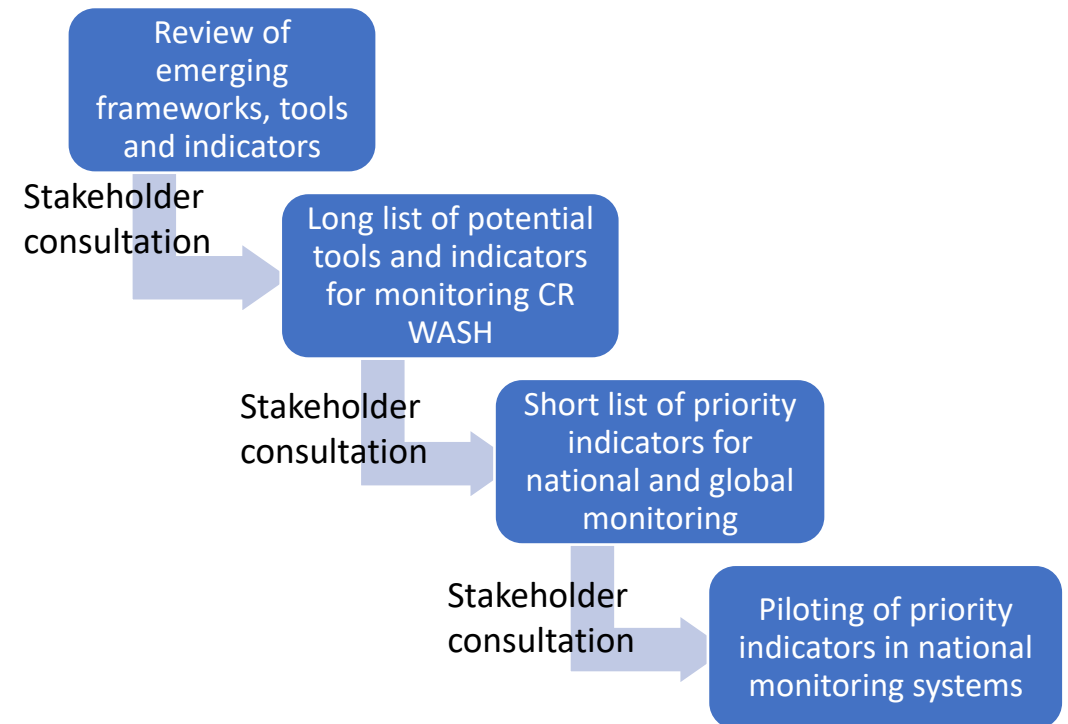
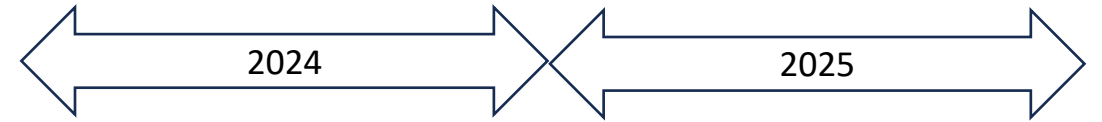
**Transboundary Water Management: UNECE, UNESCO, UNEP Work to introduce (or further introduce) climate considerations into key indicators**

SDG indicator 6.5.2 “Proportion of transboundary basin area with an operational arrangement for water cooperation” (UNECE – UNESCO)

SDG indicator 6.5.1 survey on implementation of Integrated Water Resources Management (UNEP)



**SWA, WHO and UNICEF work to identify indicators for climate resilient water supply and sanitation services**

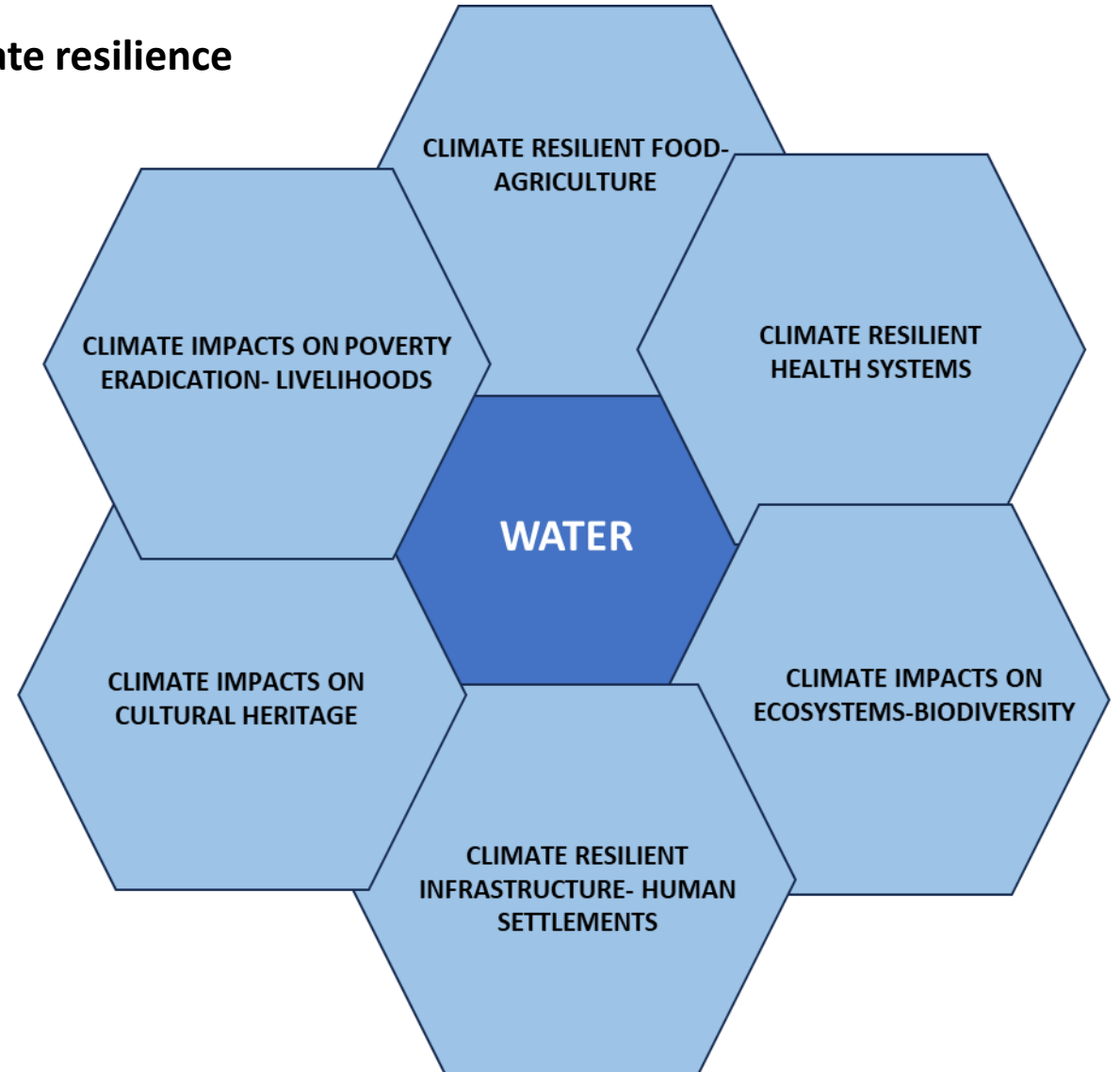
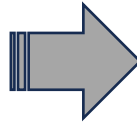


# Step 4: Seeking synergies through indicators across themes for transformative adaptation

Moving from climate de-risking to building climate resilience

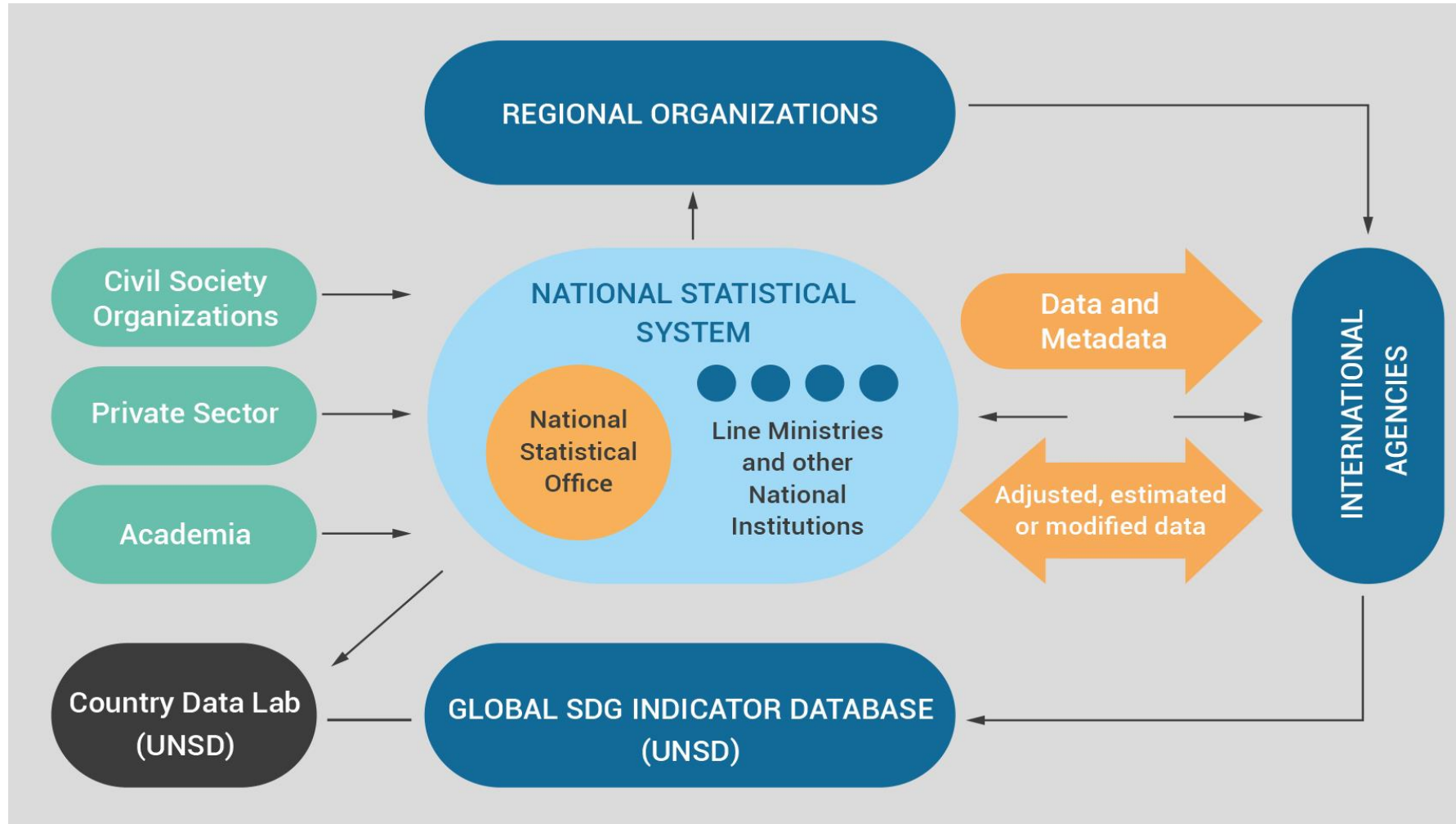
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# Step 5: Linking GGA indicators with existing reporting mechanisms

Example of Data flow for SDG6



# Water Community Views on the modalities of work of the UAE – Belém work programme

- Advised that the process of developing indicators **starts in a technically robust manner**
- **Thematic working groups** suggested for each thematic area
- A potential thematic working group on water and sanitation to **build on the existing indicator working groups employed under the SDG6 Integrated Monitoring Initiative** with some additional experts and including **online sectoral consultations**
- Involve **transboundary basin and regional organizations** into UAE-Belém work program
- Because of the **cross-sectoral nature of water**, it is proposed that water experts are part of other thematic working groups (same applies to all thematic areas)
- It is highly recommended to consider the implementation of **capacity building programmes for statistical units** in countries, and **some form of indicator pilot testing**

- **The UN-Water Climate Expert Group, and Integrated Monitoring Initiative for SDG6 are willing to provide technical support to the development, capacity building, and rollout of the indicators.**