

a water secure world

# NAP Water Supplement: Integrating Water in National Adaptation Planning and Implementation

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Water Resources Management*

PAN ASIA LEARNING WEBINAR:  
WATER-RELATED ADAPTATION PLANNING & PROJECT PREPARATION

18 June 2019



# Global Water and Climate Programme

- **60 Countries** - *Africa, Asia, Caribbean, Latin America, Central & Eastern Europe*
- **Phase 1: 2011-2016**
- **Phase 2: 2017-2019**

## Overall objective

To support countries to integrate water security and climate resilience in development planning and decision making processes

Aligned with objectives of the Paris Agreement: National Adaptation Plans, NDCs

# OUR APPROACH:

## Partnerships - linking development agendas

Climate community  
(UNFCCC COP)

Development and Finance  
communities

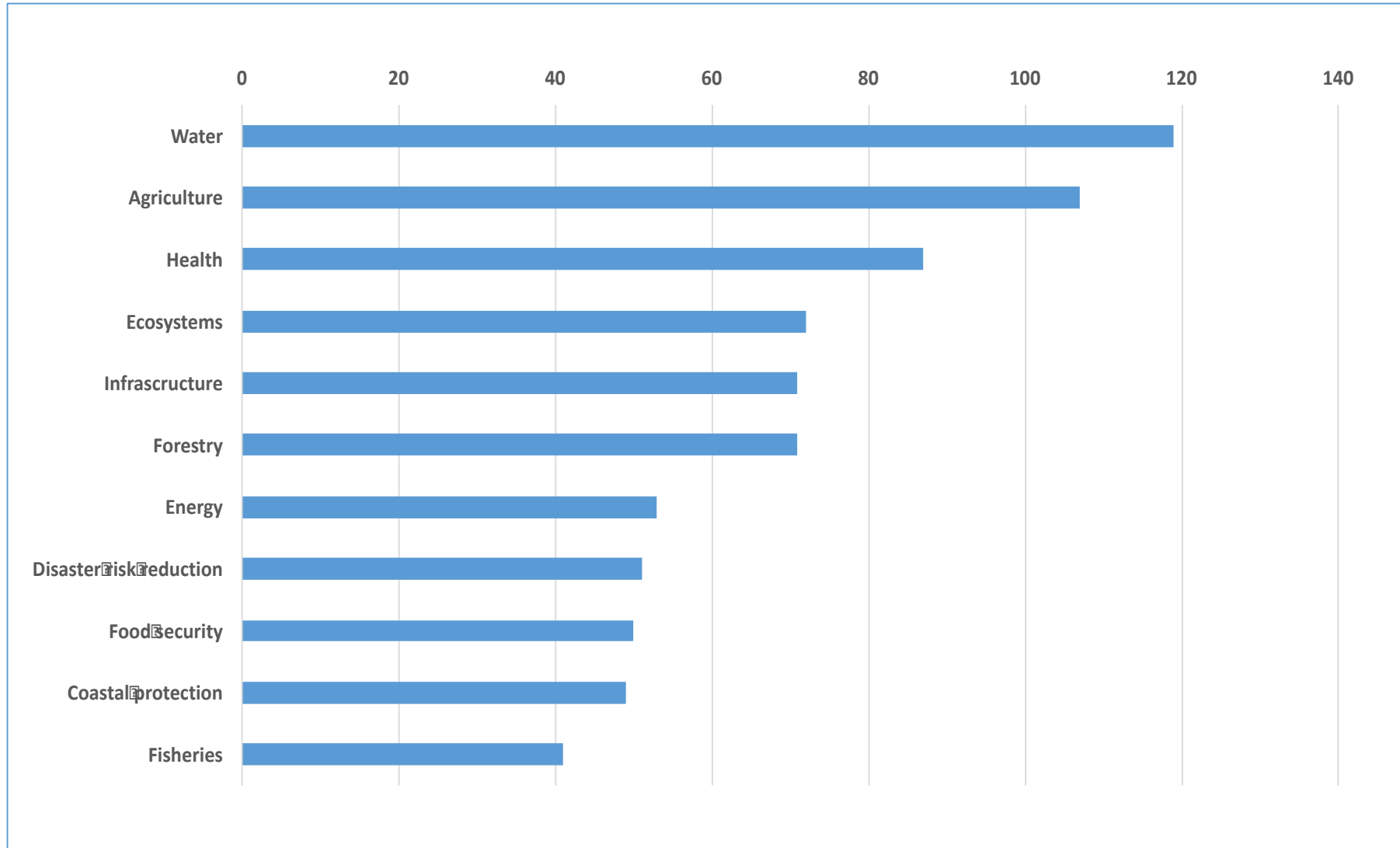
Water community



...Working across sectoral silos, bridging divides....

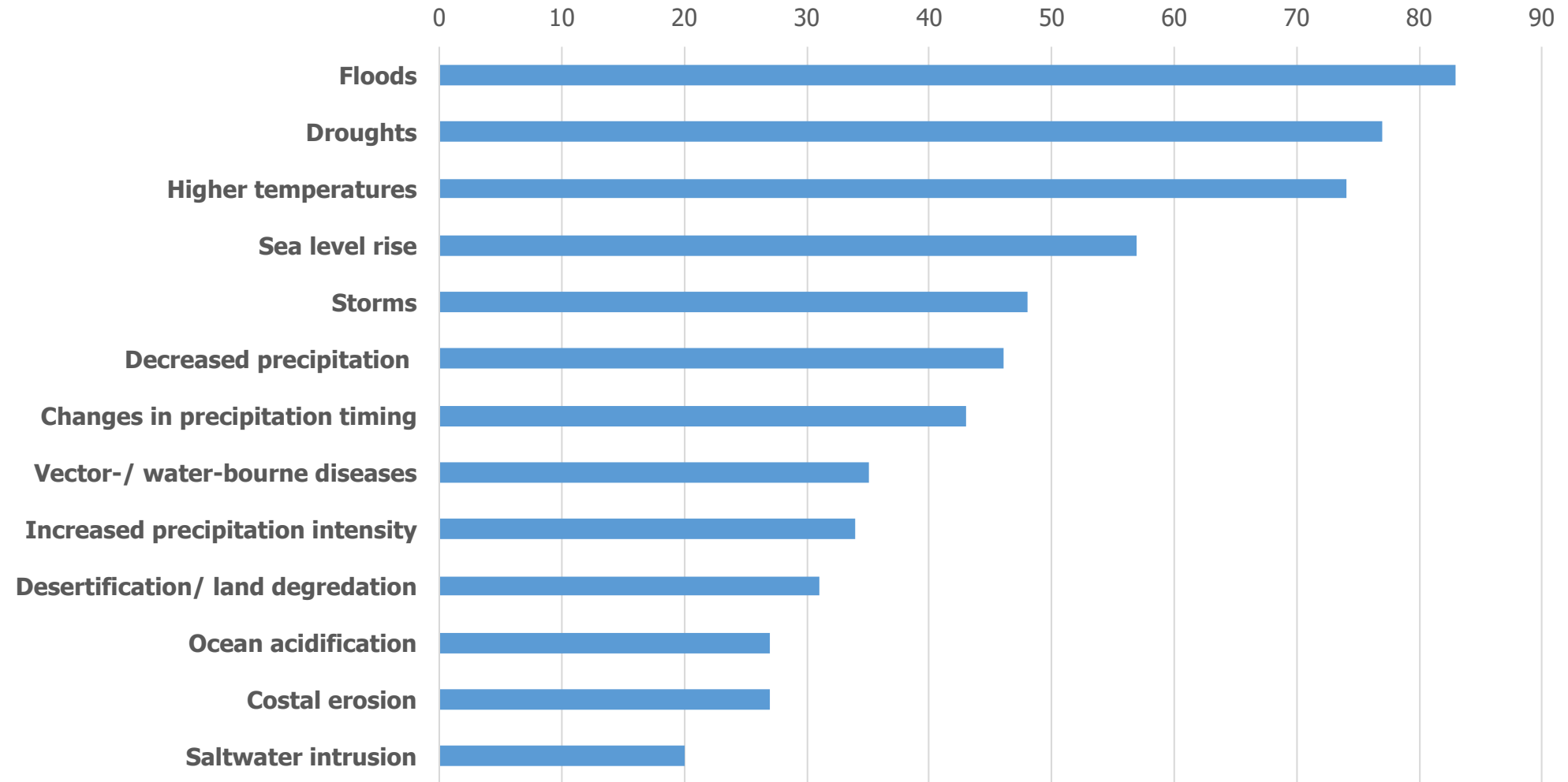
# Main climate hazards identified in NDCs

UNFCCC, 2016; 137 countries



# Adaptation action areas prioritized in NDCs

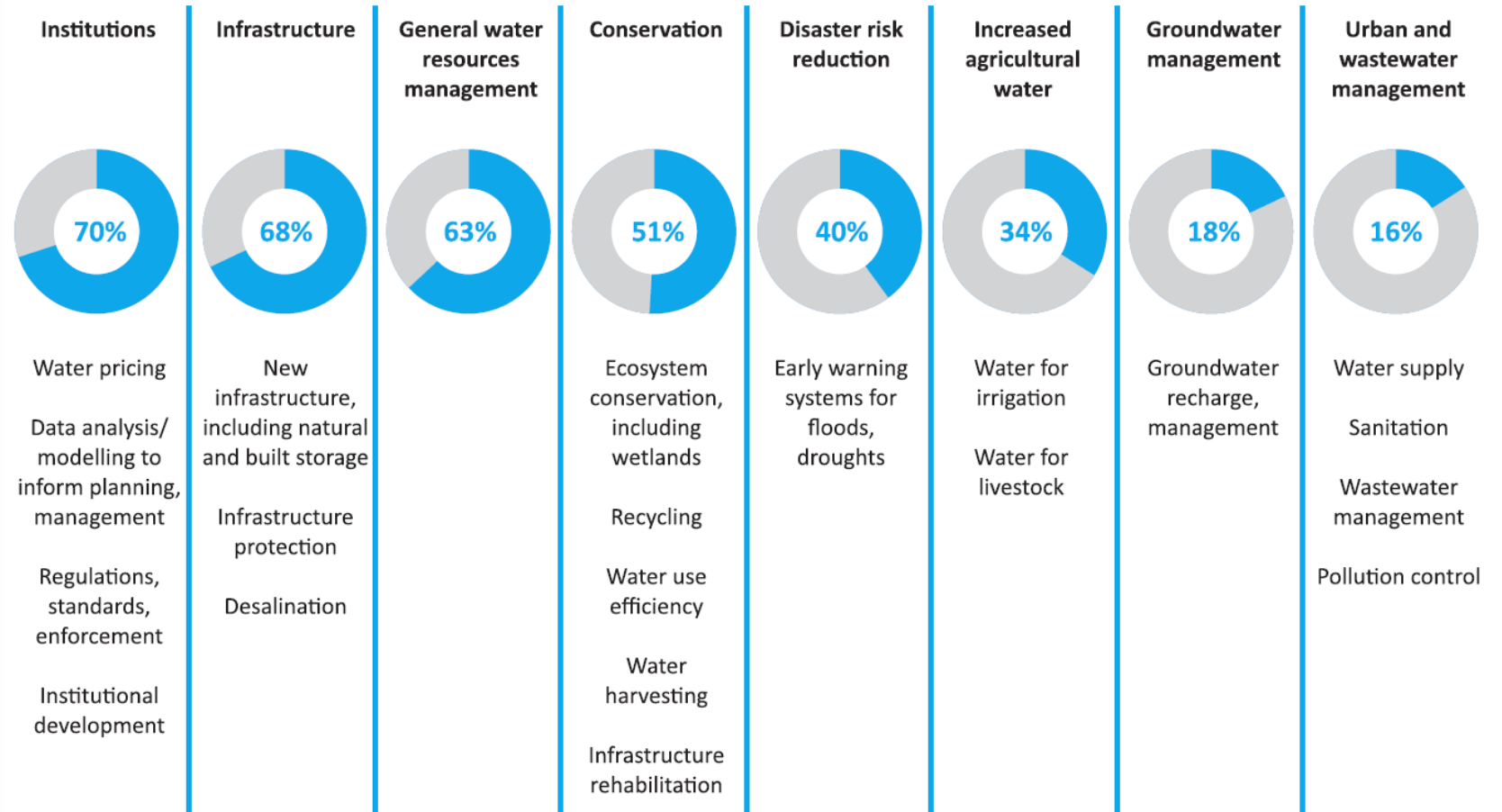
UNFCCC, 2016; 137 countries



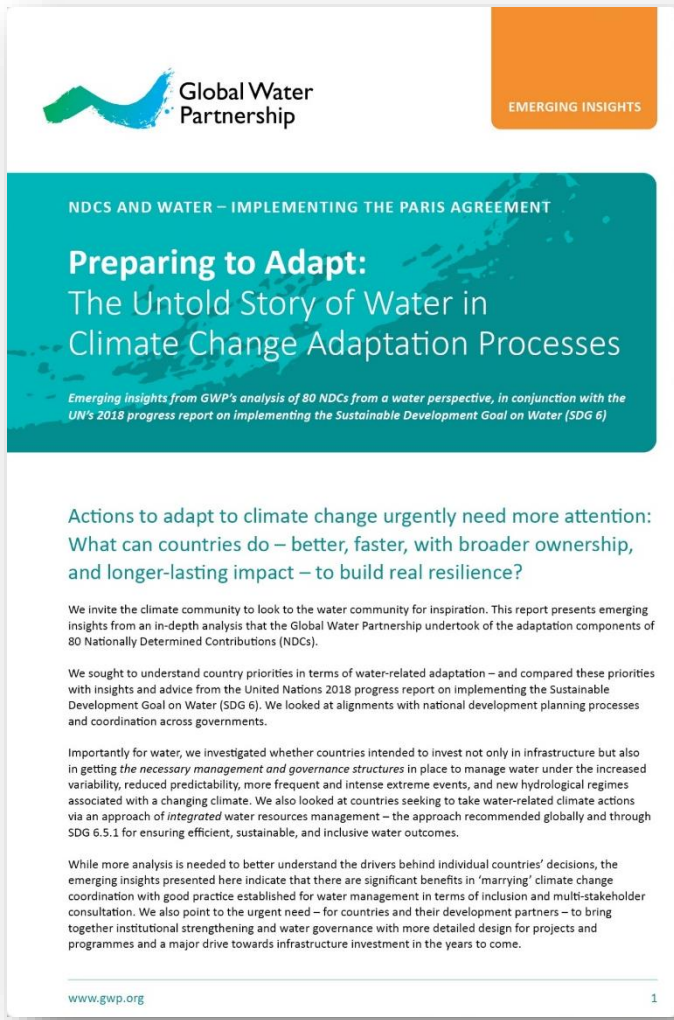
# NDCs and Water

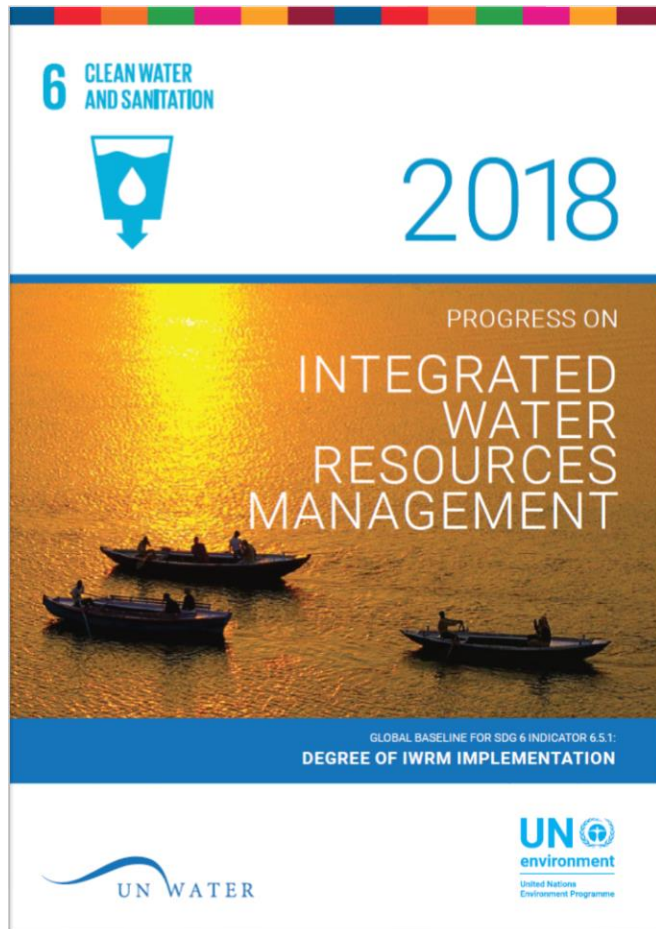
Water key to Adaptation in 89% NDCs – specific priorities vary vastly  
GWP, 2018; 80 countries

Figure 4. Prioritised water actions for adaptation in NDCs



Source: GWP, 2018

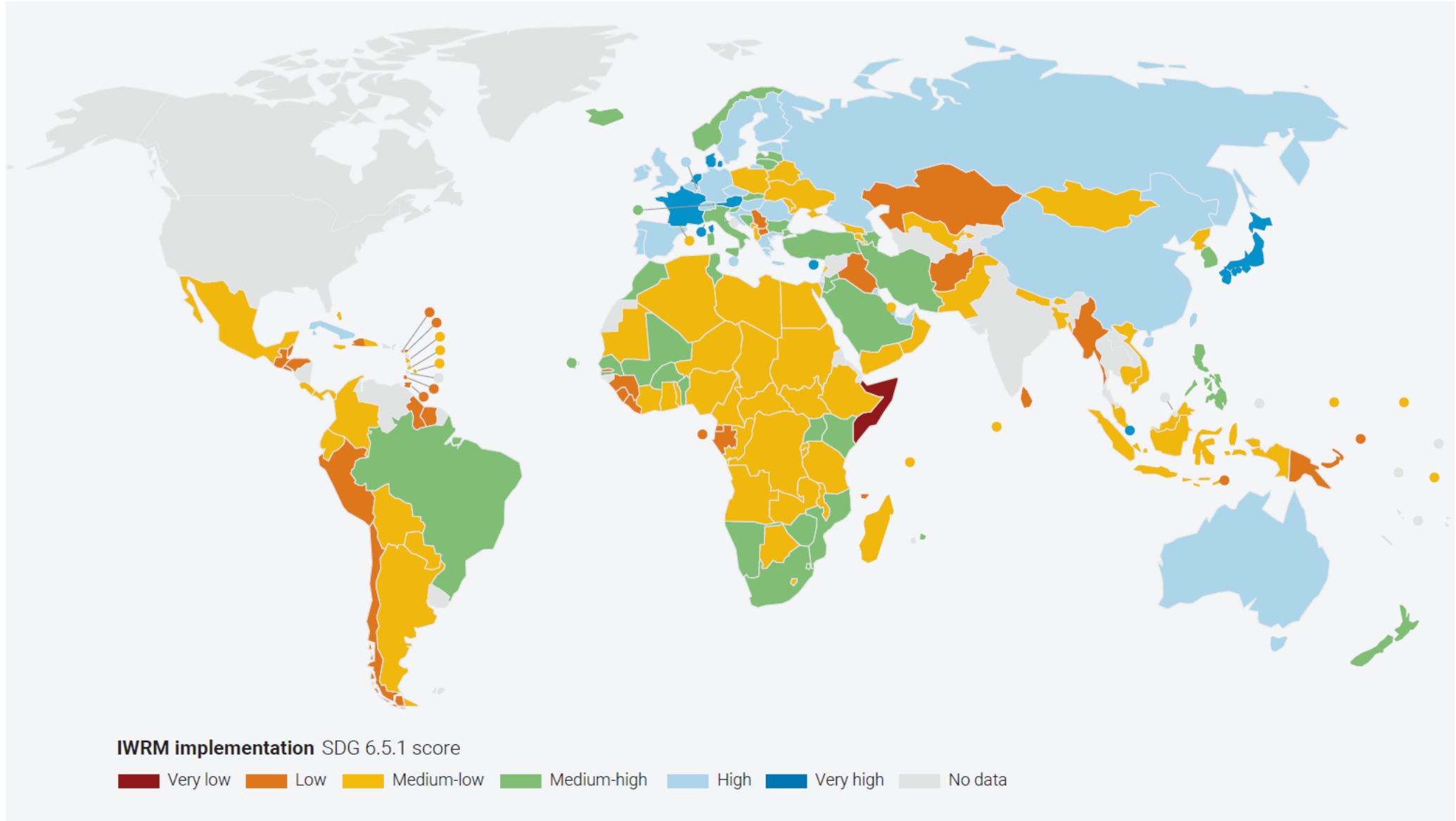




More than 80 per cent of countries have laid solid foundations to achieve at least medium-low levels of IWRM implementation. Progress now needs to accelerate.

Percent of countries at each implementation level	Score range	Baseline	Towards 2030	
4	Very high	91-100	Achieving policy objectives for IWRM: 19 per cent	
15	High	71-90		
21	Medium-high	51-70	Implementing most elements of IWRM in long-term programmes: 21 per cent	Countries in this category are potentially able to reach the target, but sustained efforts need to focus on 2030 targets.
41	Medium-low	31-50	Have institutionalized most elements of IWRM: 41 per cent	<b>Countries in these three lowest categories (60 per cent of countries) are unlikely to meet the global target unless progress significantly accelerates.</b>
19	Low	11-30	Have started developing elements of IWRM: 19 per cent	<b>Countries in the three lowest categories should aim to set national targets based on the country context.</b>
<1	Very low	0-10		





# Asian countries: self-scoring on IWRM implementation

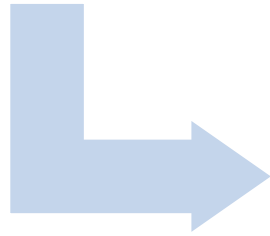
Country name	Final IWRM Score	Section 1	Section 2	Section 3	Section 4
		Average	Average	Average	Average
		Enabling Environment	Institutions and Participation	Management Instruments	Financing
Bangladesh	50	50	49	56	45
Bhutan	32	36	24	38	32
Cambodia	46	54	46	50	32
China	75	75	75	76	72
Georgia	35	36	48	32	24
Indonesia	48	52	53	52	36
Malaysia	43	46	47	47	32
Nepal	33	23	49	27	33
Pakistan	50	67	51	41	40
Philippines	51	64	53	52	37
Sri Lanka	25	16	36	26	23
Viet Nam	38	47	35	36	34

IWRM implementation SDG 6.5.1 score

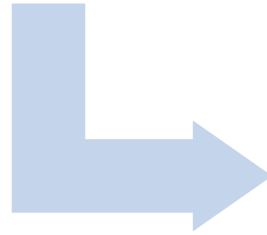
■ Very low 
 ■ Low 
 ■ Medium-low 
 ■ Medium-high 
 ■ High 
 ■ Very high 
 ■ No data

# National Adaptation Plan (NAP)

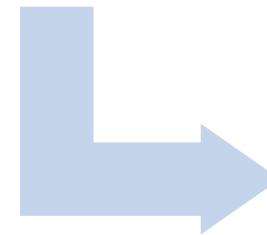
Out of **153**  
developing  
countries



**91** have initiated the  
process to formulate and  
implement NAPs



**13** have  
submitted a NAP



Only **4** of them  
are from LDCs

**Global goal for all  
countries to have a NAP  
by 2020-end**

# UNFCCC Technical Guidelines for National Adaptation Plans – Water Supplement

Available from GCF Readiness & Preparatory Support Programme:

- One-time \$3M per country for NAP
- \$1M per year per country for 'Readiness'

April 2019: NAP EXPO

- ITS PURPOSE**
- enable the identification, prioritisation, financing, and implementation of water-related adaptation strategies and projects
  - establish a framework for integrating water perspectives into planning, implementing, and monitoring adaptation actions that promote climate resilience, in ways that are embedded with medium-to-longer-term development processes
  - empower stakeholders involved in using or managing water to participate effectively and efficiently in the process to formulate and implement NAPs
  - strengthen gender considerations in water-related adaptation planning and implementation
  - help non-water specialists to understand the issues related to water security in the context of climate change

**USING IT, COUNTRIES WILL**

- incorporate water-related adaptation needs and opportunities in the formulation and implementation of NAPs
- enhance the integration of water-related adaptation in development policies, programmes, and plans

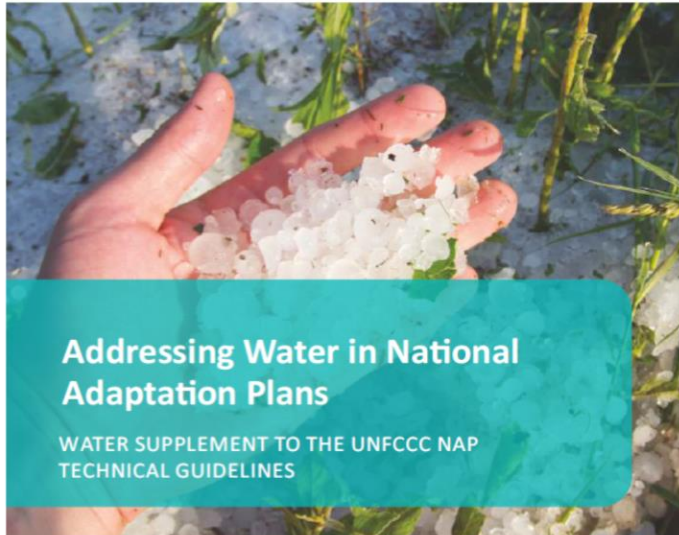
**WHICH, AS A RESULT, WILL**

- strengthen the resilience of economies, livelihoods, and natural ecosystems by reducing water-related climate vulnerabilities, and building adaptive and transformative capacities

# Water Supplement designed to complement UNFCCC LEG Technical Guidelines for NAP process

April 2019: NAP EXPO

Global Water Partnership



Addressing Water in National Adaptation Plans

WATER SUPPLEMENT TO THE UNFCCC NAP TECHNICAL GUIDELINES

SECOND EDITION | APRIL 2019

[www.gwp.org](http://www.gwp.org)

- **Not prescriptive** – countries will scope what exists and what needs to be done, to create streams for their work at the national and sub-national levels
- **Showcase examples**, case studies and recommend key references
- Provide for countries to **build on existing activities** and to “enter” the NAP process at appropriate points
- Many of the activities can and will be done in parallel, and **no mandatory sequencing**

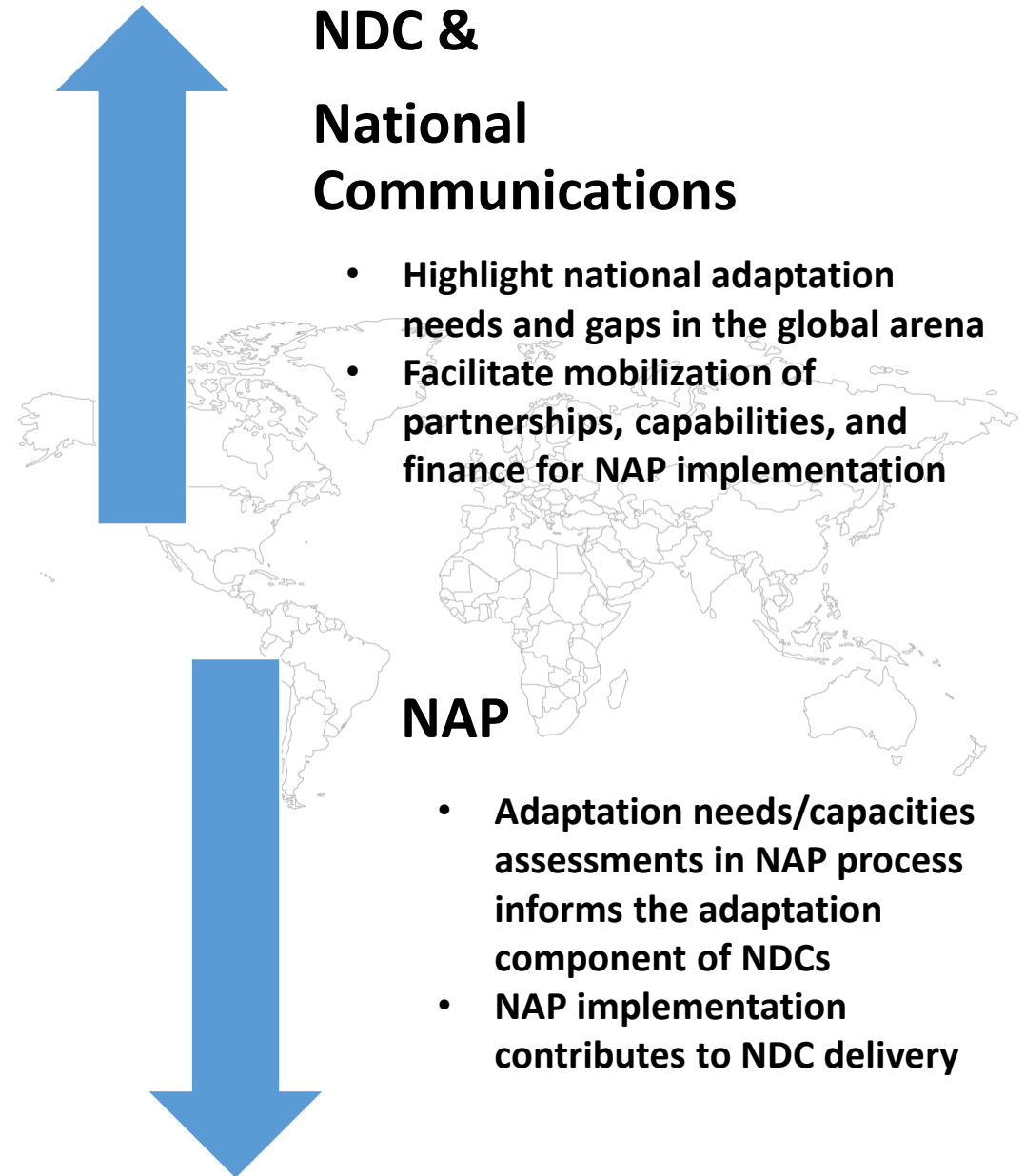
# Coherence in SDGs, Paris Agreement, DRR agendas at national level



**PARIS CLIMATE AGREEMENT**

**Sendai Framework for Disaster Risk Reduction**

**2015 - 2030**



## **NDC & National Communications**

- Highlight national adaptation needs and gaps in the global arena
- Facilitate mobilization of partnerships, capabilities, and finance for NAP implementation

## **NAP**

- Adaptation needs/capacities assessments in NAP process informs the adaptation component of NDCs
- NAP implementation contributes to NDC delivery

## NAP process in 17 steps

### A. Laying the groundwork and addressing gaps

1. Initiating and launching of the NAP process
2. Stocktaking: identifying available information on climate change impacts, vulnerability and adaptation and assessing gaps and needs of the enabling environment for the NAP process
3. Addressing capacity gaps and weaknesses in undertaking the NAP process
4. Comprehensively and iteratively assessing development needs and climate vulnerabilities

### D. Reporting, Monitoring and Review

1. Monitoring the NAP process
2. Reviewing the NAP process to assess progress, effectiveness and gaps
3. Iteratively updating the national adaptation plans
4. Outreach on the NAP process and reporting on progress and effectiveness

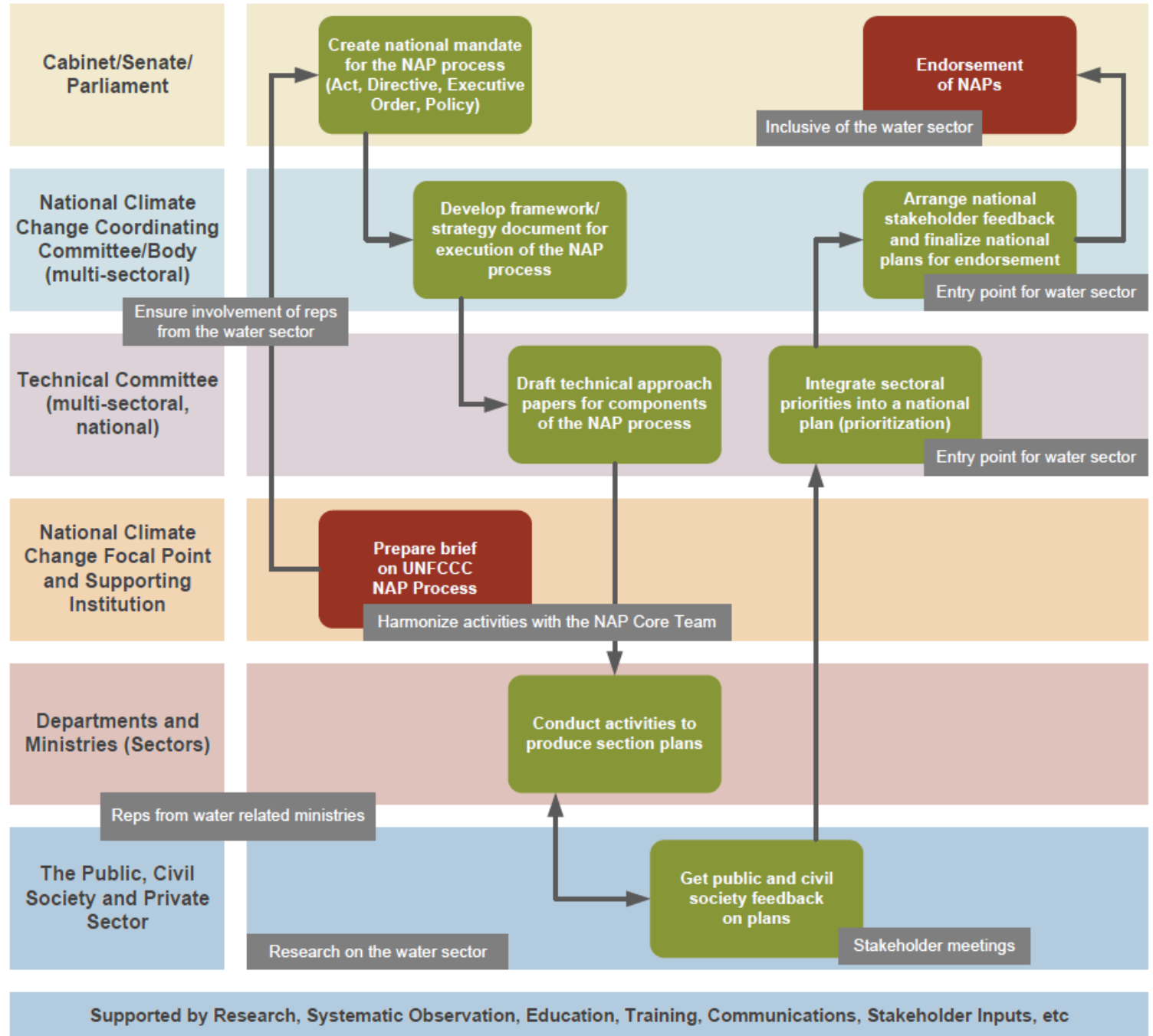
### B. Preparatory Elements

1. Analysing current climate and future climate change scenarios
2. Assessing climate vulnerabilities and identifying adaptation options at the sector, subnational, national and other appropriate levels
3. Reviewing and appraising adaptation options
4. Compiling and communicating national adaptation plans
5. Integrating climate change adaptation into national and subnational development and sectoral planning

### C. Implementation Strategy

1. Prioritizing climate change adaptation in national planning
2. Developing a (long-term) national adaptation implementation strategy
3. Enhancing capacity for planning and implementing adaptation
4. Promoting coordination and synergy at the regional level and with other multilateral environmental agreements

# Possible flow of responsibilities for NAP process: *potential entry-points for integrating water*





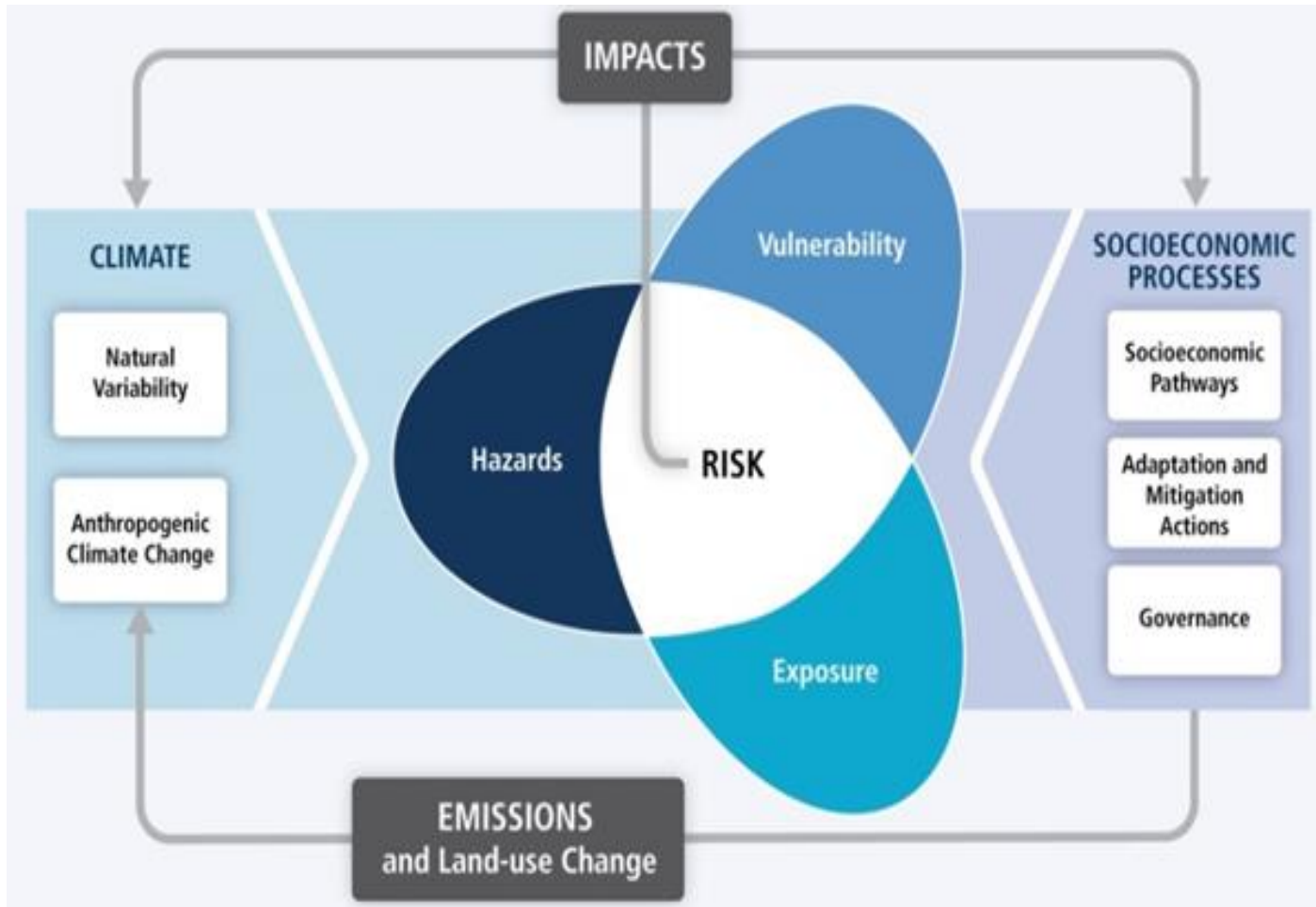
A man in a dark suit, white shirt, and patterned tie is speaking at a podium with a microphone. The background is dark blue with some text visible, including "Korea Global".

**“ Our shared experience with countries and partners has taught us that adaptation projects need to be underpinned by substantive climate science, notably to identify anticipated changes in climate, their impact and the vulnerabilities of affected populations. ”**

**YANNICK GLEMAREC**

**EXECUTIVE DIRECTOR, GREEN CLIMATE FUND**

# Disaster Risk, Climate Change, and Climate-Resilient Development



Climate disasters occur when **extreme climatic events** interact with **vulnerable social, economic and environmental conditions** leading to **severe alterations** in normal functioning of a community or a society.

- **Disaster risk** – intersection of exposure, vulnerability and hazard/extreme events
- **Climate change exacerbates disaster risk** – by affecting vulnerability to future extreme events, modifying coping capacity/ and adaptive capacity

# Climate rationale - what is it?

Provides the **evidence** for climate investment and policy decision making

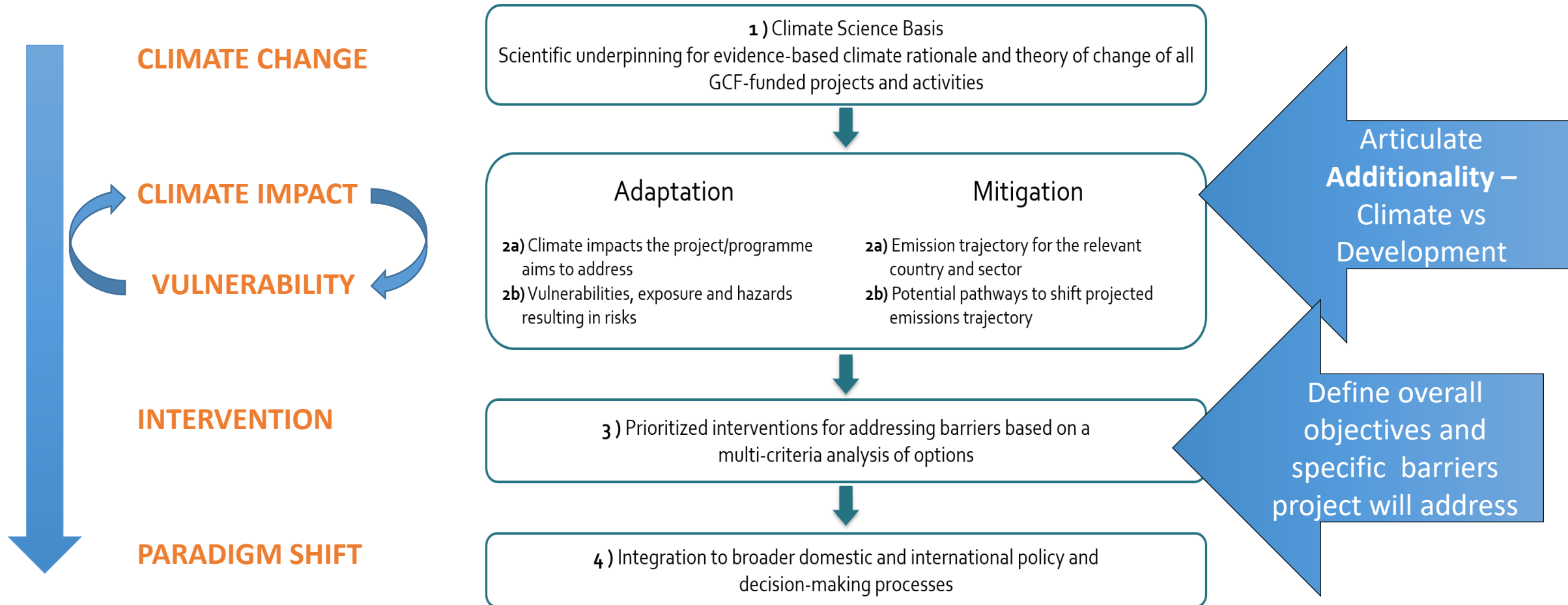
Assess the causal **links** between climate impacts and climate action

The impact an investment or policy is expected to have on climate resilience

The impact that climate is expected to have on an investment or policy

Needs to be based on **best available science**

# Climate Rationale and the Project Intervention



# Climate Services for Water

	Water affected sector	Examples of relevant hydro-met-climate information	Examples of application of hydro-climate services
Economic systems	Hydropower and thermal power	<ul style="list-style-type: none"> <li>- Weather (air temperature, precipitation, wind, solar radiation, humidity, atmospheric pressure)</li> <li>- Weather statistics (historic time series, summary statistics)</li> <li>- Water quantity, Runoff</li> <li>- Water quality</li> <li>- Soil moisture</li> <li>- Groundwater information</li> <li>- Quantitative precipitation forecasting (QPF)</li> <li>- Hydroclimatic extremes (floods and droughts)</li> <li>- Climate forecasts</li> <li>- Decadal climate predictions</li> <li>- Climate change projections</li> <li>- Changes in precipitation, seasonal forecasts</li> </ul>	<ul style="list-style-type: none"> <li>- Water allocation</li> <li>- Irrigation scheduling</li> <li>- Flood and drought estimation</li> <li>- Hydropower generation</li> <li>- Siting, mix of energy sources</li> <li>- Pollution control</li> <li>- Demand scheduling</li> <li>- Floodplain mapping/zoning</li> <li>- Reservoir operations</li> <li>- Risk management measures</li> <li>- Water-management regulations and laws</li> <li>- Design and placement of infrastructure</li> </ul>
	Irrigation		
	Industry		
	Municipal water		
	Navigation		
Rural livelihoods	Subsistence farming and pastoralism		
	Fisheries		
	Settlement and supply		
Ecosystems	Aquatic biodiversity		
	Ecosystem goods and services		
	Catchment land quality		

# Water resource management actions that build resilience

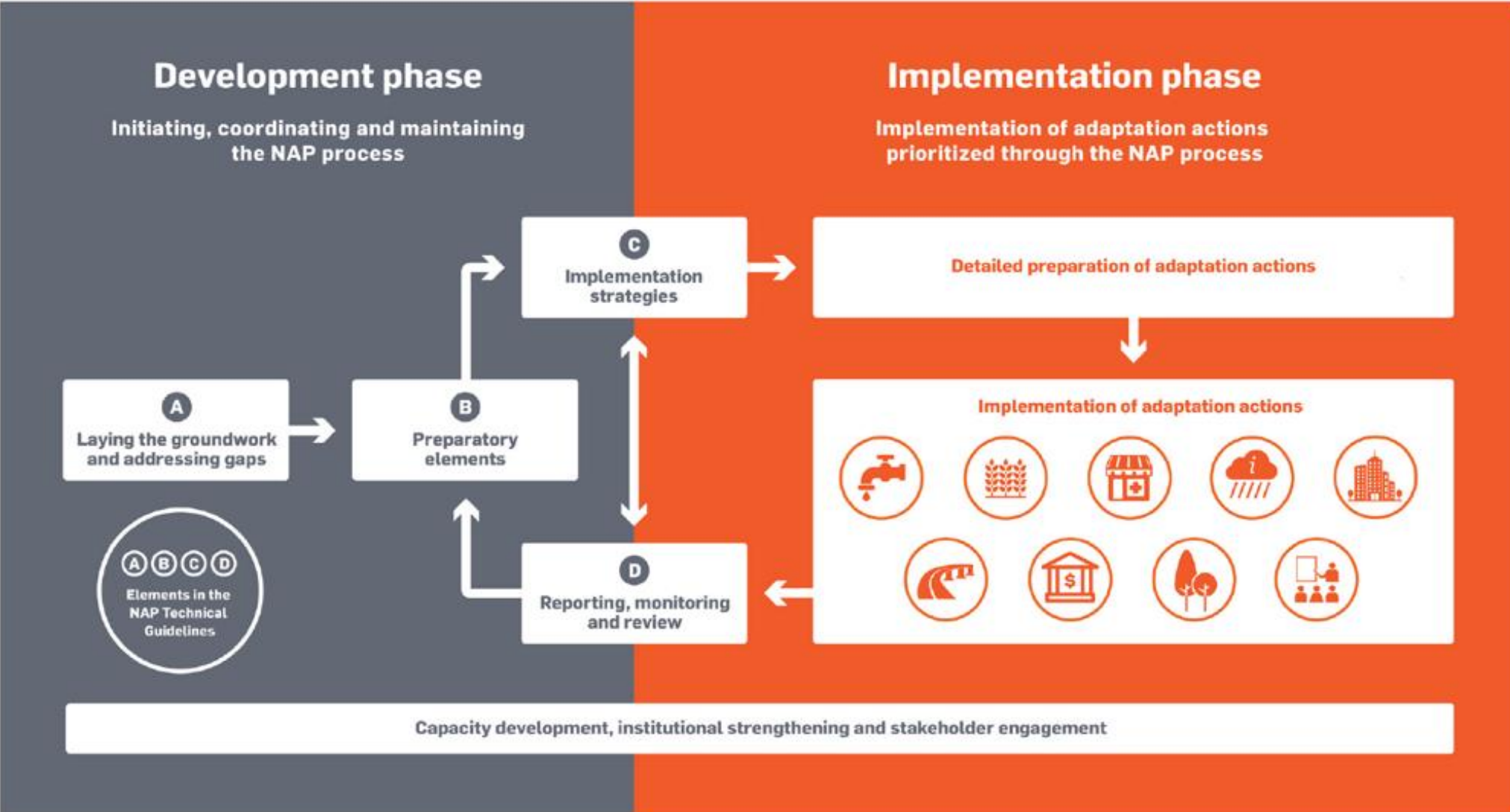
		Characteristics of Resilience	Water Management Systems That Build Resilience
Characteristics of Resilience in Water Management Systems	<b>Preparedness</b> to manage and cope with change and shocks	Flood forecasting, early warning systems, emergency response plans, flood protection plans, urban planning and development, storage, system operating rules, land-use management, watershed management, preservation of natural infrastructure	
	<b>Diversity and redundancy</b> to ensure continuation of functionality	Linked water systems and regional power pools operated at different assurance, diversity in water and energy supply sources, diversity in crops and irrigations practices relevant to climate systems, excess institutional capacity, shared information systems	
	<b>Integration or connectedness</b> to allow for optimization, benefits of scale	Coordinated hydropower generation, regional power pool, conjunctive use of surface and groundwater, basin-level or multilevel planning, multipurpose infrastructure, integration of natural and built infrastructure, water-related policy harmonization	
	<b>Robustness</b> to withstand change and shocks	Well-designed, resilient, storage and flood protection infrastructure, appropriate operating rules, functioning ecological infrastructure, coordinated institutional systems, local community response systems, relevant information systems	
Characteristics of Systemic Resilience	<b>Adaptability</b> of a system to change	Flexible institutional arrangements, flexible infrastructure design, responsive flood mitigation strategies, policies that facilitate technology adoption and climate smart actions, policy and support that enables livelihood adaptability	
	<b>Transformability</b> of a current system to a better system	Flexible policy and legislation, regularly revised strategies, learning institutions that can reorganize, infrastructure systems that can be altered or operated in different ways, community and country resources to enable changes	

# Incremental value via transboundary coordination

		Level of Required Actions	
		National	Regional
Water Management Systems	Information Systems		
	<b>Data monitoring and sharing systems</b>	Data collection, verification, quality control; Use of shared information for preparedness to flood, drought; Data dissemination and sharing with relevant sectors, local stakeholders, and regional entities; Harmonization of national practices with regional protocol	Agreement on data collection and sharing protocol; Regional platform/mechanisms available for exchange
	<b>Decision-support information systems and early warning systems</b>	Provision of data for calibration; Use of analytical tools for preparedness and robustness development projects; National preparedness plans and information dissemination schemes are developed or harmonized; National plans are informed by basin-wide models and jointly developed tools	Joint development of modelling and analytical tools; Forums for dialogue that use tools for development prioritization and planning; Early warning systems implemented, information disseminated to national or local constituents
	Information Systems		
	<b>Flexible policy and legal instruments</b>	National law enforcement, policy implementation; Agreement and execution of management actions	Regional policy implementation; Agreement on climate-informed water/benefit sharing, abstraction limits, storage and release protocols, other regional protocol
	<b>Institutionally and financially sustainable water resource organizations</b>	Sub-basin organizations manage local processes, carry out sub-basin level management functions; National structures coordinate, allocate, and develop plans among sectors and ministries; Carry out information and investment functions and communicate with stakeholders for accountability purposes	Agreement on organization mandate; Capacity building within organizations; Financial sustainability measures in place; Working partnerships with national governments, other regional bodies established
Infrastructure Systems	<b>Basin-scale, resilience-targeted, investment planning</b>	Develop national plans for water management and development; Tailor and prioritize investments to local needs and norms; Coordination of national project prioritization and planning with regional agreements and processes	Basin-wide dialogue to jointly prioritize interests, evaluate cross-border and cross-sector trade-offs, agreement on regional investment plans that ensure system preparedness, robustness, redundancy, and adaptability; Regional resource mobilization
	<b>Robust Infrastructure investment implementation</b>	Prepare and implement national investments in collaboration with regional counterparts to share risk, optimize benefits; Operate national infrastructure sustainably, in coordination with other users; Endeavor to restore and maintain ecosystems services and natural infrastructure; Target preparation studies to ensure robustness, adaptability to a changing climate; Carry out stakeholder consultations to ensure optimization of benefits, minimization of impacts	Transboundary coordination in investment planning, implementation, and operation; Prepare, operate, restore joint-infrastructure investments; Enable optimal operation of investments in the region

# Financing Water in NAPs

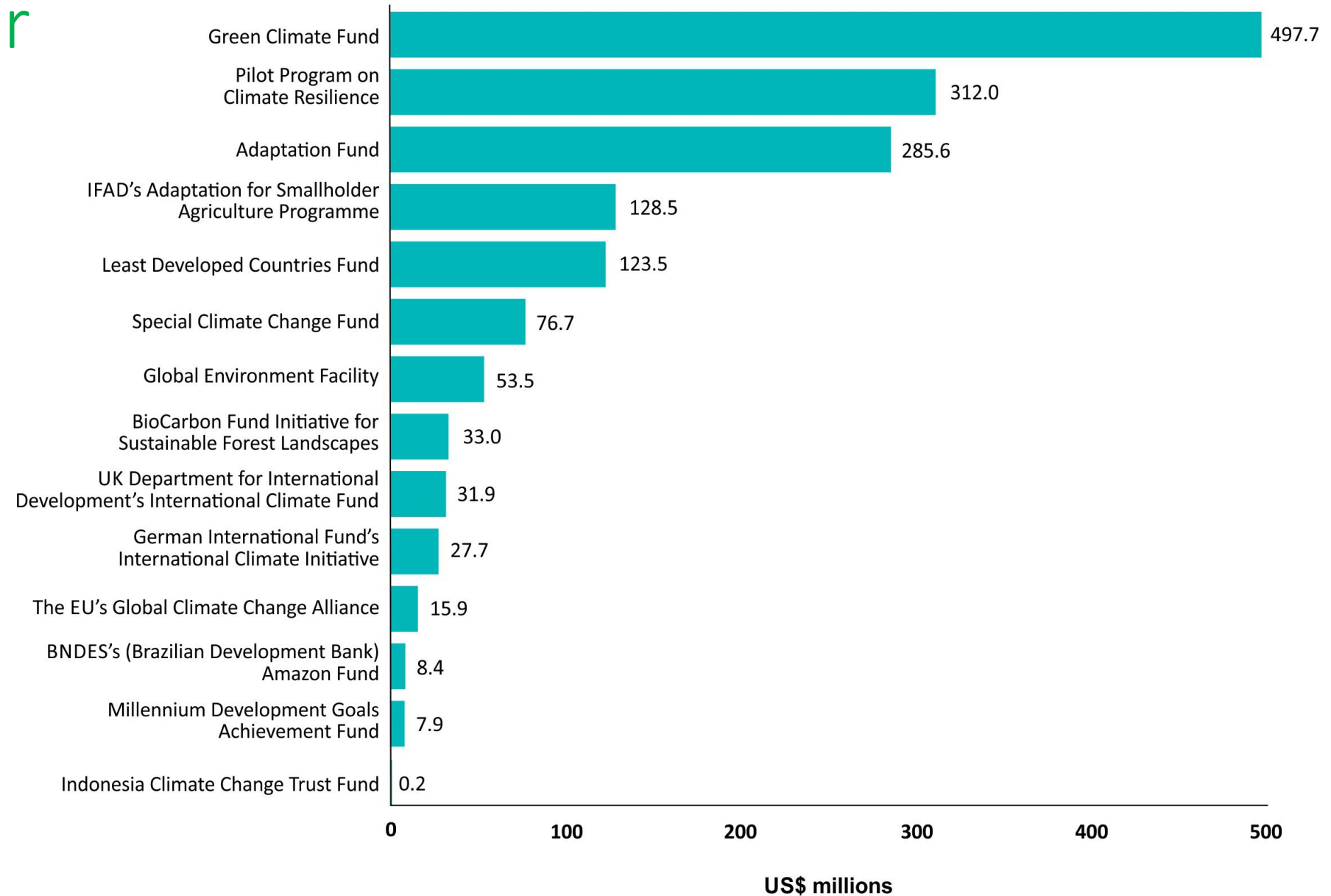
## The NAP process: key elements requiring finance





# Financing Water in NAPs

## Approved spending for water and climate resilience by different climate funds, 2006–2017



*Note: Excludes electricity-generating related products but includes a small number (c30) of projects relating to energy use for irrigation, etc.*

# Key Messages

## Information

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- Build **embedded in-country capacity**, knowledge.
- Make the **economic case**, communicate, addressing real-world problems with practical solutions. Cost of inaction potentially tremendous, can derail development ambitions.
- Balance top-down (climate models) and bottom-up (vulnerability assessment). Take a **risk-based approach**. **Communicate uncertainty**.
- **Learn by doing**. Water management is context-specific and so are interventions to improve climate resilience through better water management.

## Institution

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- Success depends on **stakeholder ownership, gender equality**, ensure **inclusion** of vulnerable groups.
- Regional and **transboundary dimensions** of shared waters calls for an integrated approach transcending national boundaries.

## Infrastructure

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- Balance **political, technical and financial** feasibility.
- Funding shortage for water-related projects – less an availability-problem, more an **access issue** – understand requirements, improve institutional coordination.

# NAP-related processes supported

Initial 8 countries:

2011-2016

- Ghana
- Burkina Faso
- Cameroon
- Tunisia
- Burundi
- Rwanda
- Mozambique
- Zimbabwe



Additional 10 countries:

2017-2019

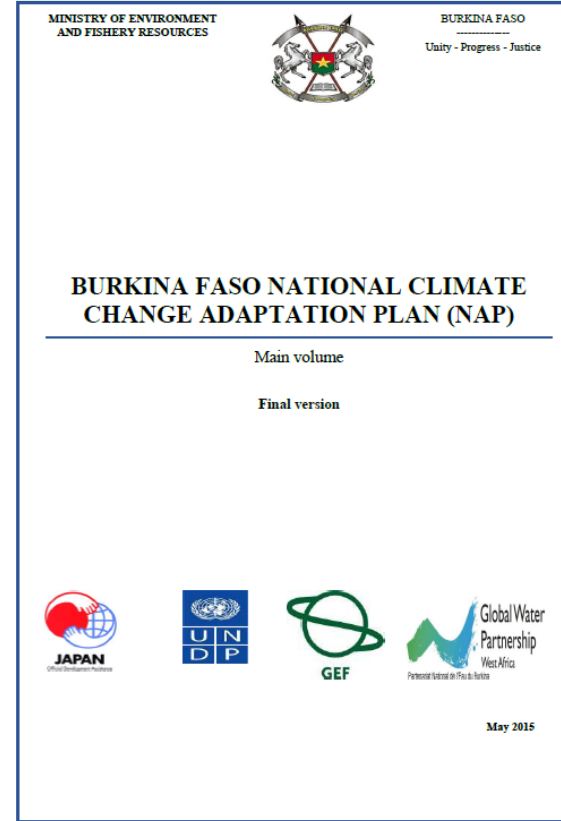
- Zambia
- Tanzania
- Central Africa Republic
- Benin
- Mali
- Mauritania
- Sao Tome Principe
- Kenya
- Uganda
- Senegal

# Cameroon NAP



- **Ministries supported –**
  - Environment, Nature Protection, Sustainable Development
  - Other relevant Ministries
- **Final Cameroon NAP approved by stakeholders and government in August 2015. NAP available on UNFCCC site online.**

# Burkina Faso NAP

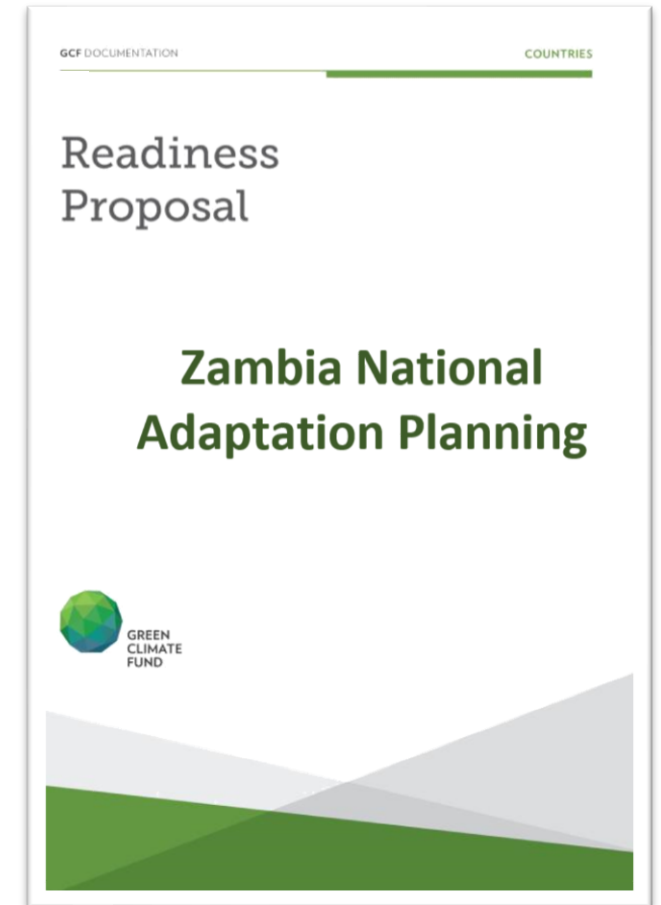
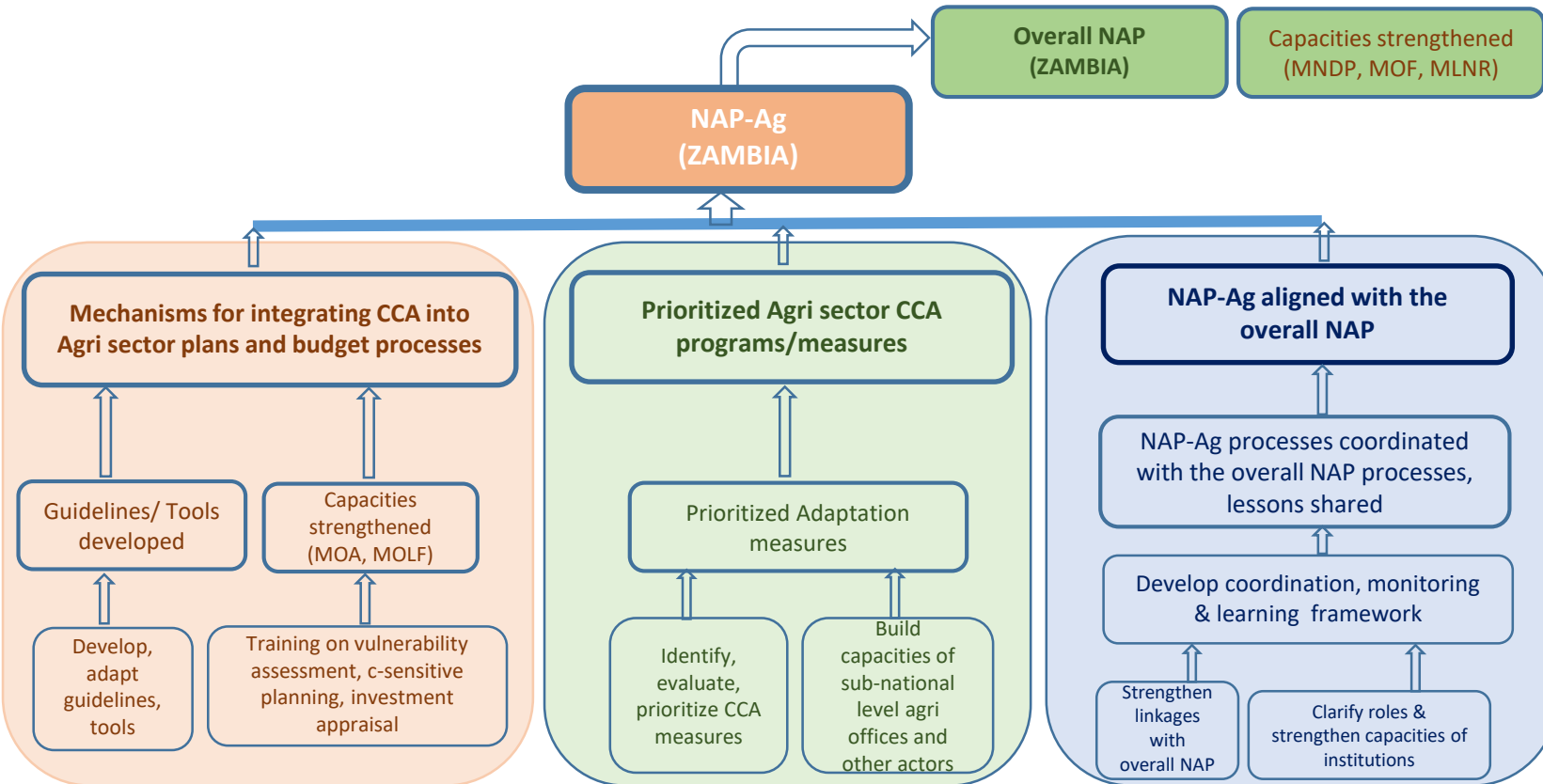


- **Ministries supported –**
  - Environment, Sustainable Development
  - Other relevant Ministries
- **Final Burkina Faso NAP approved by stakeholders and government in October 2015. NAP available on UNFCCC site online.**

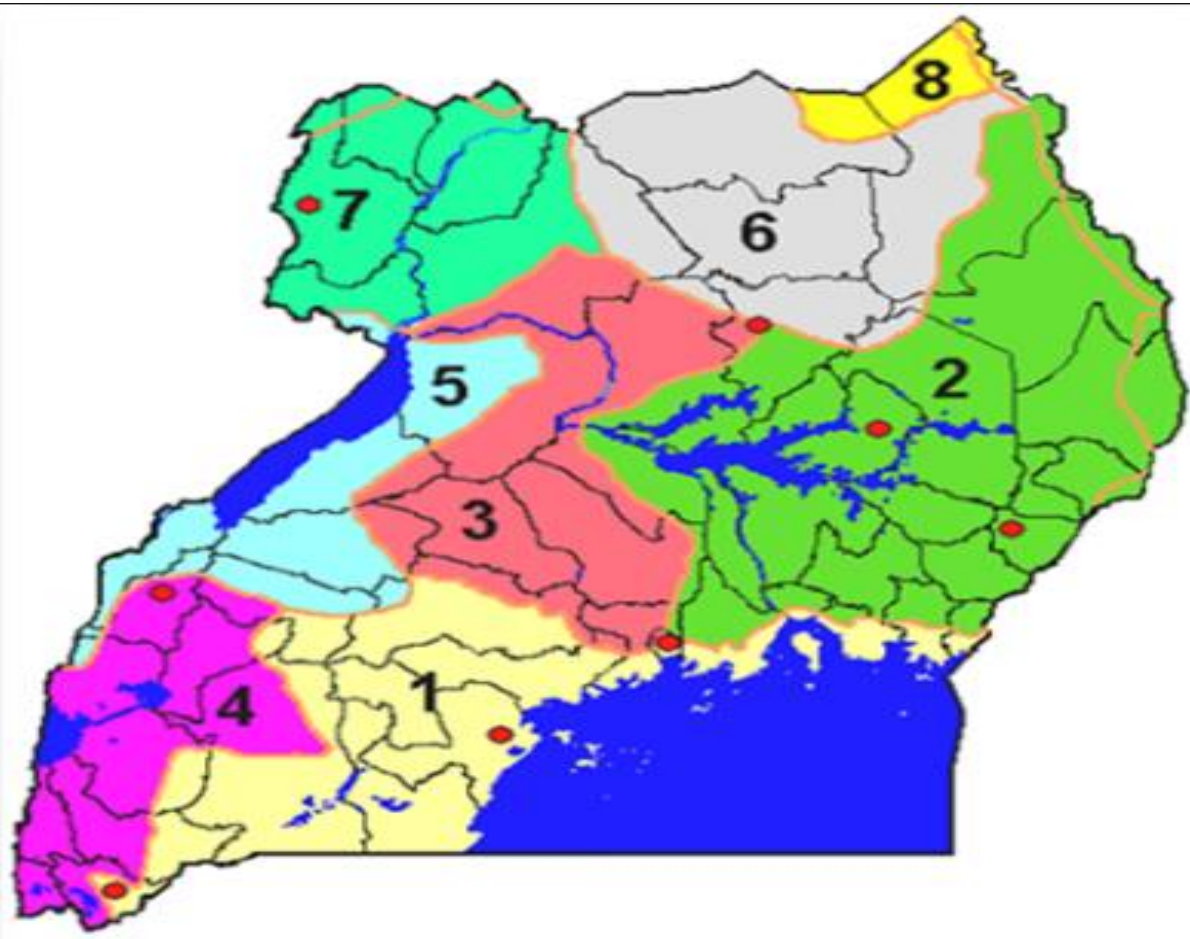
# Zambia NAP

## NAP-Ag Roadmap (supported by UNDP/FAO, GWP)

## NAP development (supported by GWP)



# UGANDA programme development for Adaptation Fund: Vulnerability Assessment and Options Appraisal, \$7.5 Million accessed



8 hydrological basins  
(WMZs)

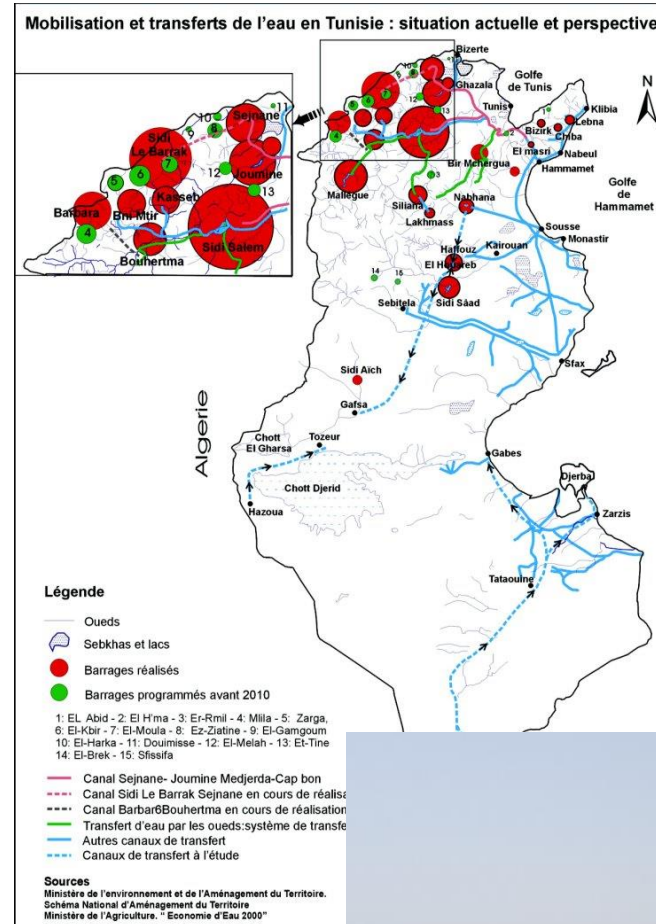
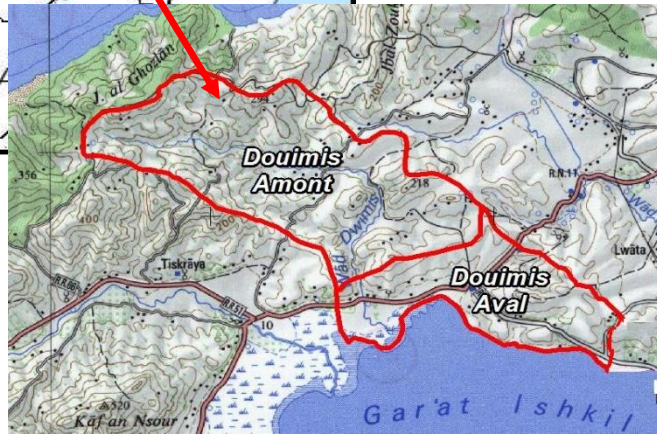
Catchments: (1) Awoja in Kyoga WMZ, (2) Aswa in Upper Nile WMZ and (3) Maziba in Albert Nile WMZ



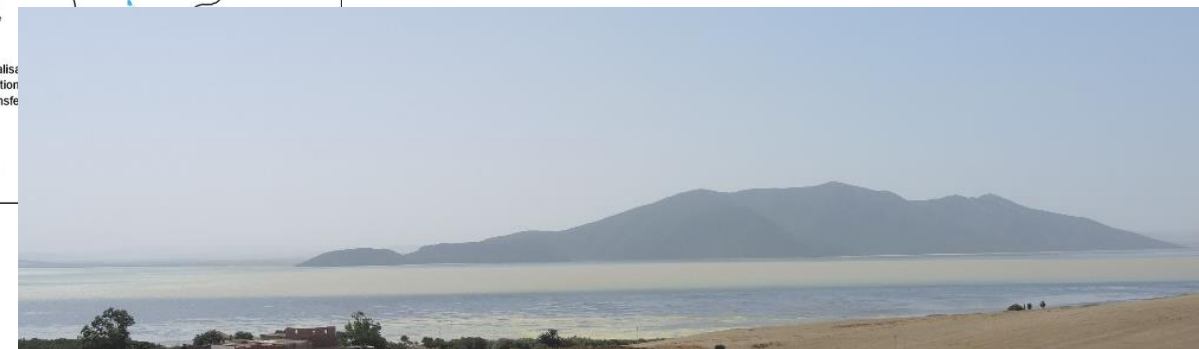
4 Water Management Zones

# Mainstreaming climate change in local planning : Doumis Basin – Governorate of Bizerte – Northern Tunisia

Part of the inter-connected system  
for water mobilisation in Tunisia



Ecological importance : Lake  
Ichkeul - Ramsar Site  
downstream



Training civil servants



Engaging local authorities and local population facilitators group



Planning meetings





## Surveys conducted jointly with national partners



→ Gender

→ Youth

## Crucial : Broaden population facilitators group





**TRANSFORMATIONAL CLIMATE RESILIENCE WATER PROJECT CONCEPTS  
IN AFRICA FOR THE GREEN CLIMATE FUND**

Africa Water Investment Programme (AIP)




**REPORT OF THE INAUGURAL TECHNICAL WORKSHOP ON PREPARATION OF CLIMATE  
RESILIENT WATER PROJECT CONCEPTS AND PROPOSALS**

Held at the Vulindlela Academy Auditorium,  
Development Bank of Southern Africa (DBSA)  
Midrand, South Africa





**Technical Workshop on Project  
Preparation for Transformational  
Climate Resilience Water Project  
Concepts in Asia workshop**



**Technical Workshop on Project Preparation for Transformational  
Climate Resilience Water Projects  
in the Mediterranean Region for the Green Climate Fund**

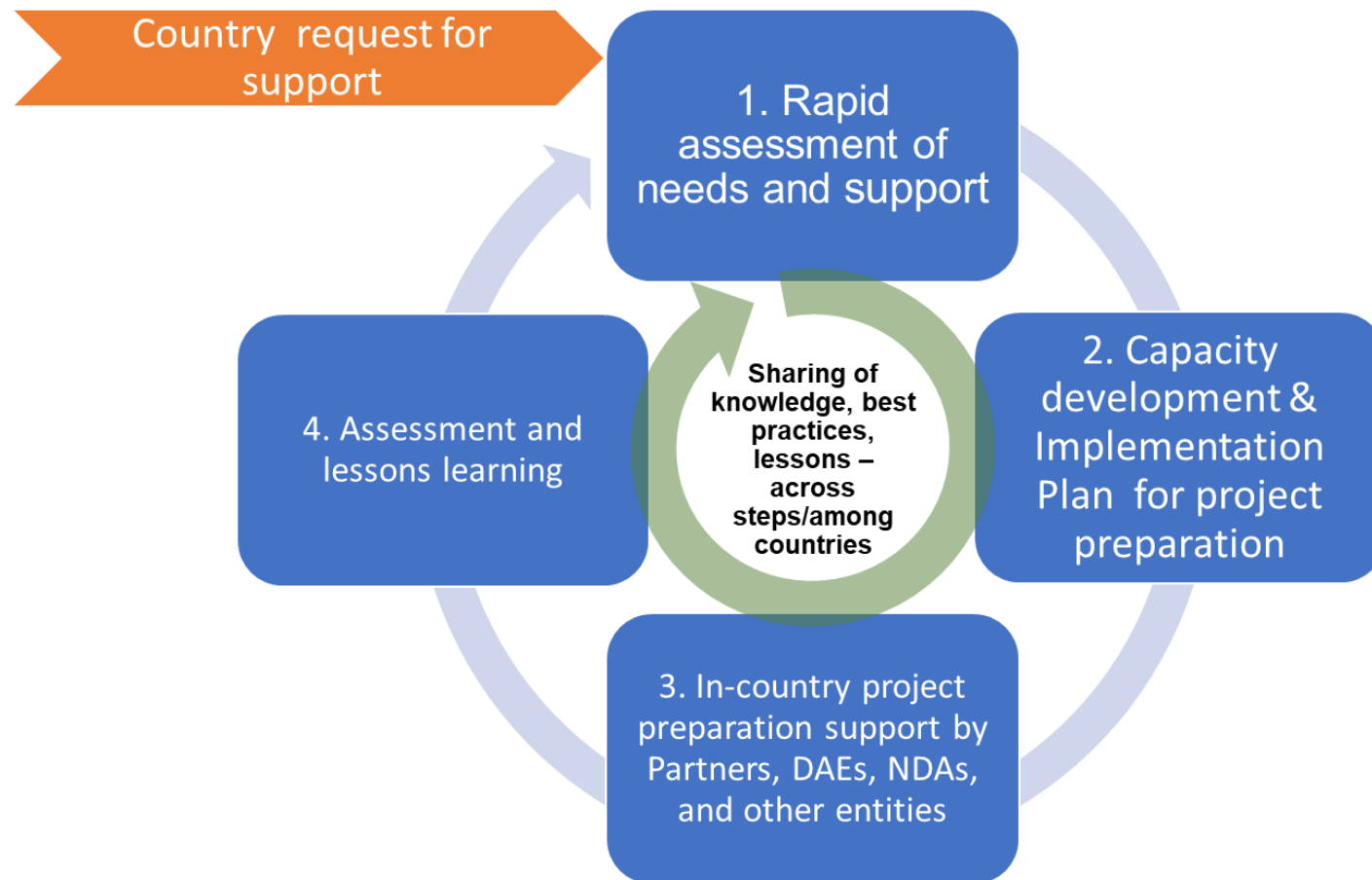


**Global Water Partnership Mediterranean (GWP-Med)  
&  
Union for the Mediterranean (UfM)**

*With the support of the Swedish International Development  
Cooperation Agency (SIDA) and the GWP Water, Climate and Development Pro-  
gramme (WACDEP)*

Partnership for Climate Resilient Water Project Development

# Regional Project Preparation Partnerships: GCF readiness proposals, project concept notes, project proposals

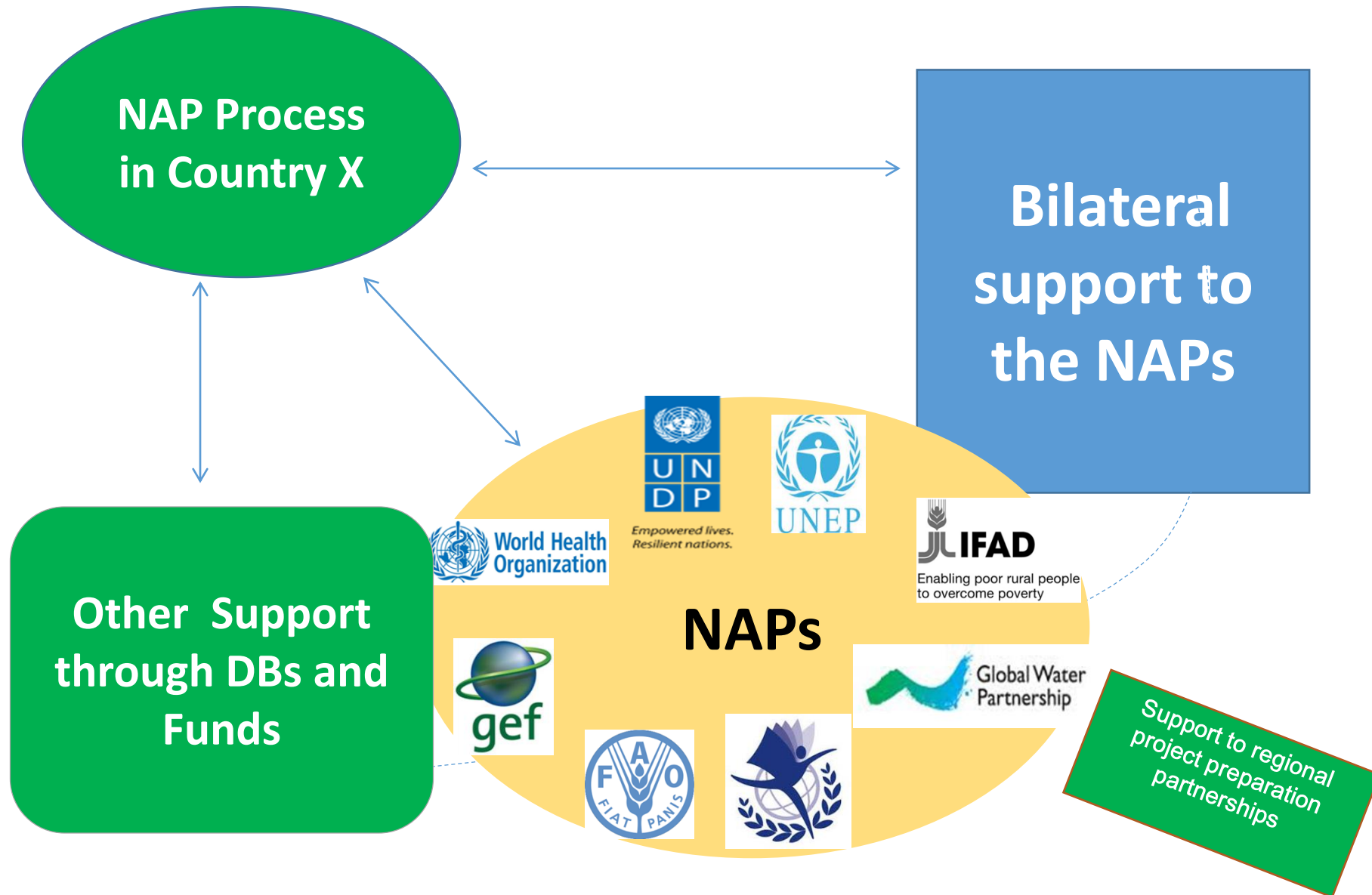


## In Africa, updates since October 2018

- 46 GCF project ideas
- 2 GCF project concept notes completed, full proposals being drafted –
  - SADC (multi-country)
  - Zambia (town of Livingstone)
- 1 draft project concept review (Ethiopia)
- 1 Readiness proposal for NAP development submitted (Zambia)
- 5 country requests for GWP as delivery partner for Readiness support (Sudan, Zambia, Burundi, Mauritania, Libya)
- Other requests for project concept note expected



# Global Partnership with UN agencies to support national adaptation plan processes





Technical Support Unit by WMO and GWP



Over 60 expert partner organizations in both programmes



**Building on GWP Regional and Country Water Partnerships and NMHS**  
 New Adaptation Fund project in the Volta Basin



# Drought and Flood Management HelpDesks

## Global expertise turned into direct Advisory to close gaps at national level



[www.droughtmanagement.info](http://www.droughtmanagement.info)

Focus on strengthening three Pillars:

1. Monitoring and Early Warning Systems
2. Vulnerability and Impact Assessment
3. Drought mitigation and preparedness



[www.floodmanagement.info](http://www.floodmanagement.info)

Focus on Project Preparation;  
Build up strength on End-to-End Early Warning Systems

# Other Key Resources: AU/AMCOW Framework for Water Security, Climate Resilient Development Key



Framework provides guidance on identification and prioritization of investment projects for climate resilience development, how to integrate these into development planning processes



**THE FRAMEWORK**

The Strategic Framework consists of 4 quadrants which provide guidance on how to ensure resilient WASH services.

Resilient WASH programming helps ensure that WASH infrastructure and services are sustainable and resilient to climate related risks; and WASH contributes to building community resilience to climate change.

Read more and download the Strategic Framework Strategy here:

English, Spanish, French, Portuguese

**TECHNICAL BRIEFS**

To support the implementation of the Strategic Framework, a number of Technical Briefs have also been developed. The briefs go into further detail on specific topics to support the implementation of the Framework.

1. Understand the problem - Guidance Note
  - Risk assessments for WASH + Spread sheet tool
2. Identify and appraise options - Technical Briefs
  - Linking risk with response: options for climate resilient WASH
  - Appraising and prioritising options for climate resilient WASH
3. Deliver solutions - Technical Briefs
  - Integrating climate resilience into national WASH strategies and plans
  - Local participatory water supply and climate change risk assessment: modified water safety plans
4. Monitor and move forward - Technical Brief
  - Monitoring and evaluation for climate resilient WASH

Additional references available here

**LEARNING MODULES**

The following Learning Modules have been developed in order to build the capacity of WASH practitioners to implement WASH climate resilience programming.

1. Understand the problem
  - Learning Module 1: Introduction
  - Learning Module 2: WASH Climate Risk Assessments
2. Identify and appraise options
  - Learning Module 2: Options to improve Climate Resilience
3. Deliver solutions
  - Learning Module 4: Integrating Options into Strategies and Plans
4. Monitor and move forward
  - Learning Module 5: Monitoring Programmes and Systems

Country Initiatives

# Strategic Framework for WASH Climate Resilient Development

**Webinar**  
**Launching the Website**  
 A recording of the webinar led by UNICEF to introduce the joint GWP/UNICEF collaboration on WASH climate resilience programming, held February 2018.



**About the collaboration**  
**José Gestí Canuto**  
 José Gestí Canuto, Water and Climate Specialist with UNICEF, outlines the collaboration with GWP. Filmed at Stockholm World Water Week 31 August 2017.



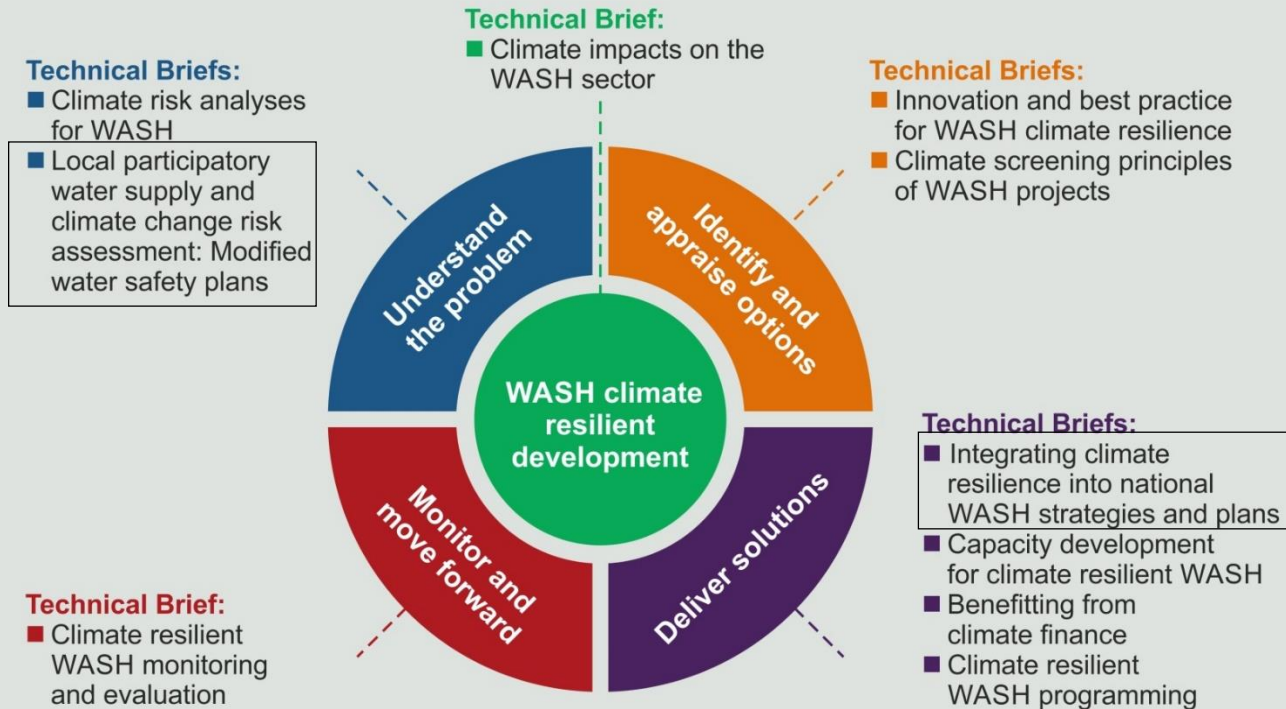
**How it started**  
**Armand Houanyé**  
 Armand Houanyé, GWP West Africa Executive Secretary, explains the background to it all. Filmed at Stockholm World Water Week 31 August 2017.





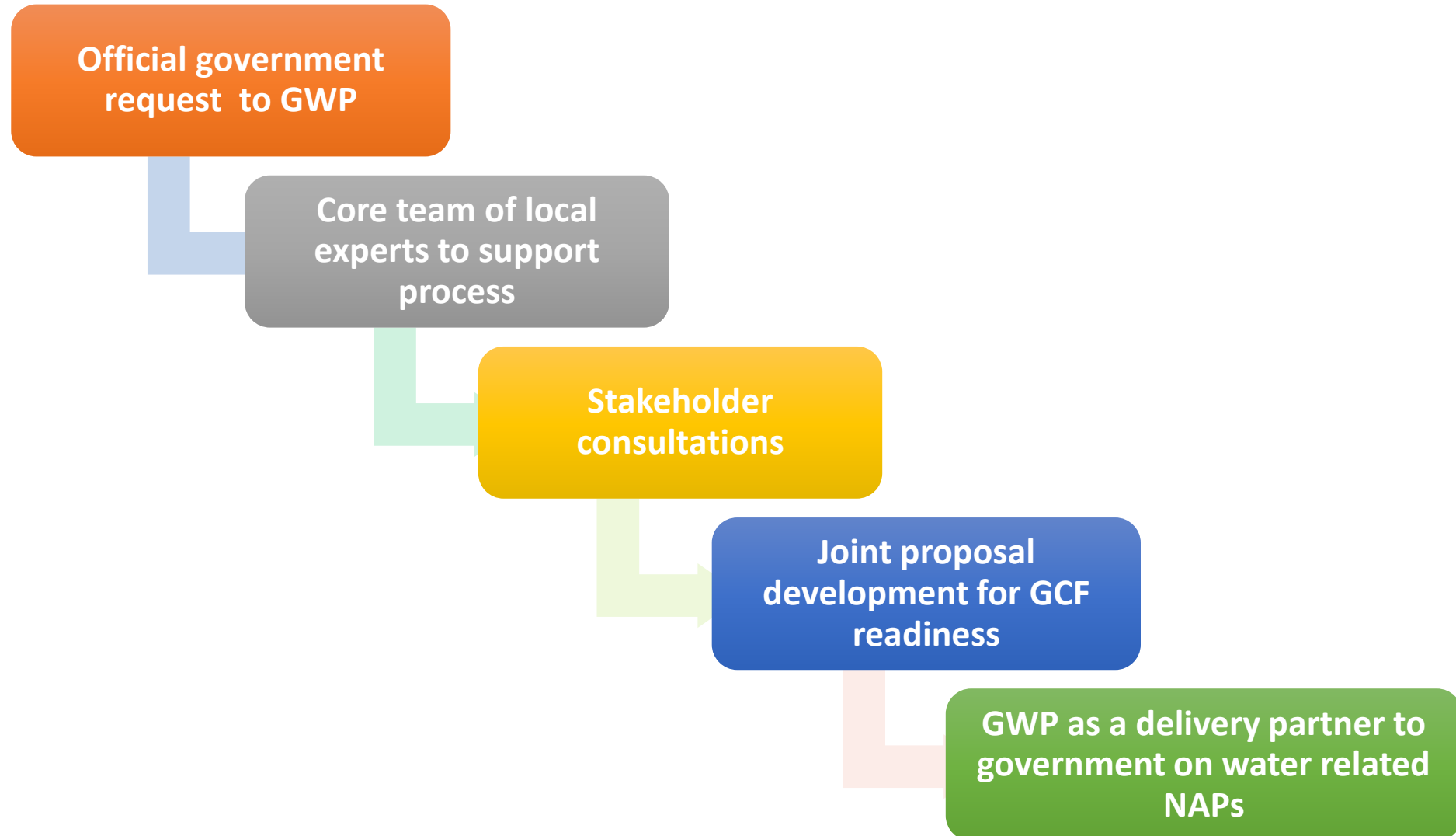
# GWP and UNICEF Technical Briefs

## Strategic Framework for WASH climate resilient development



# How to access GWP support for NAPs & GCF Readiness

..... Any country can be supported



# OUR APPROACH:

## Partnerships - linking development agendas

Climate community  
(UNFCCC COP people)

Development and Finance  
communities

Water community



...Working across sectoral silos, bridging divides....