a water secure world

Addressing Water in NAPs: Water Supplement to the UNFCCC NAP Technical Guidelines

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Global Water Partnership

Global Workshop on Building Climate Resilience through Improving Water Management and Sanitation at National and Transboundary Levels

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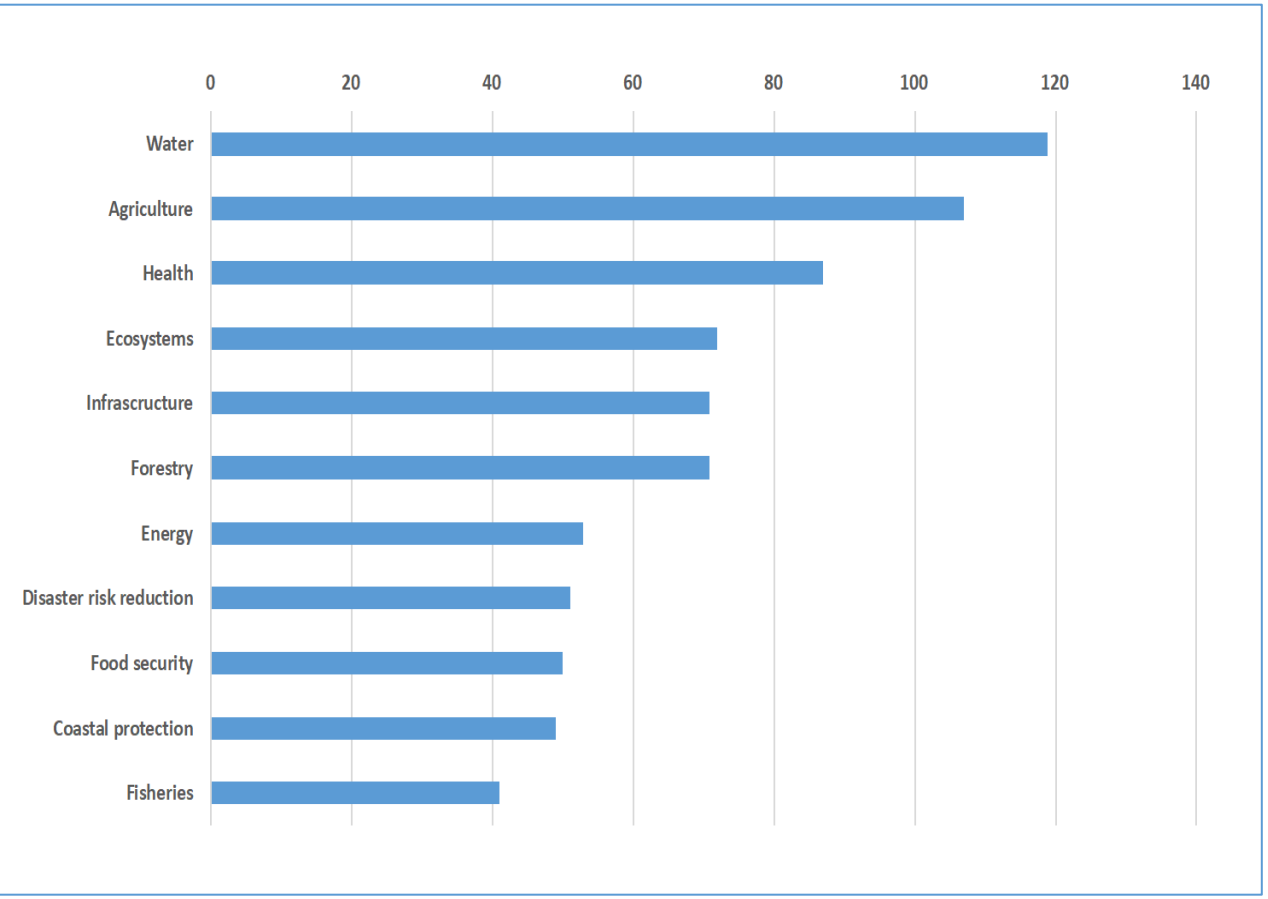
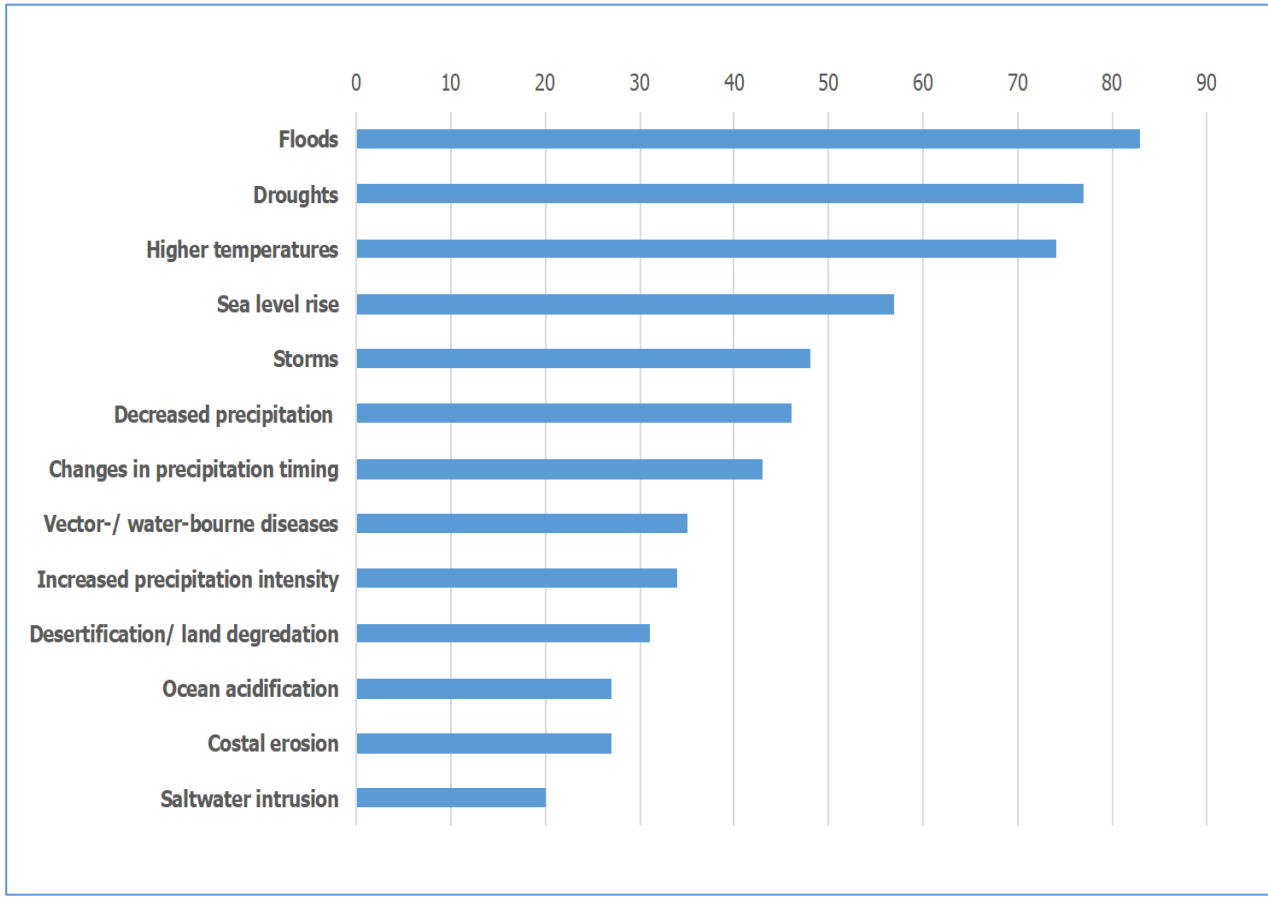
Main climate hazards identified in adaptation component of NDCs

UNFCCC, 2016; 137 countries

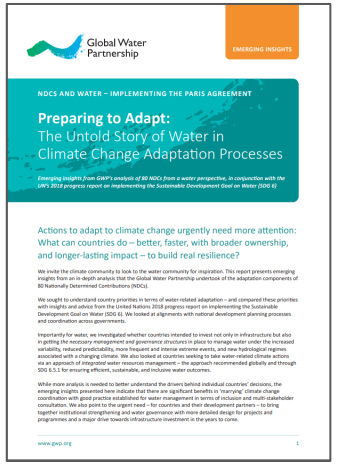


Adaptation action areas prioritized in NDCs



NDCs and Water

89% of 2015 NDCs prioritize Water as key to Adaptation – specific priorities vary vastly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EMERGING INSIGHTS

NDCS AND WATER – IMPLEMENTING THE PARIS AGREEMENT

Preparing to Adapt:
The Untold Story of Water in Climate Change Adaptation Processes

Emerging insights from GWP's analysis of 80 NDCs from a water perspective, in conjunction with the UNFCCC 2018 progress report on implementing the Sustainable Development Goal on Water (SDG 6)

Actions to adapt to climate change urgently need more attention: What can countries do – better, faster, with broader ownership, and longer-lasting impact – to build real resilience?

We invite the climate community to look to the water community for inspiration. This report presents emerging insights from an in-depth analysis that the Global Water Partnership undertook of the adaptation components of 80 Nationally Determined Contributions (NDCs).

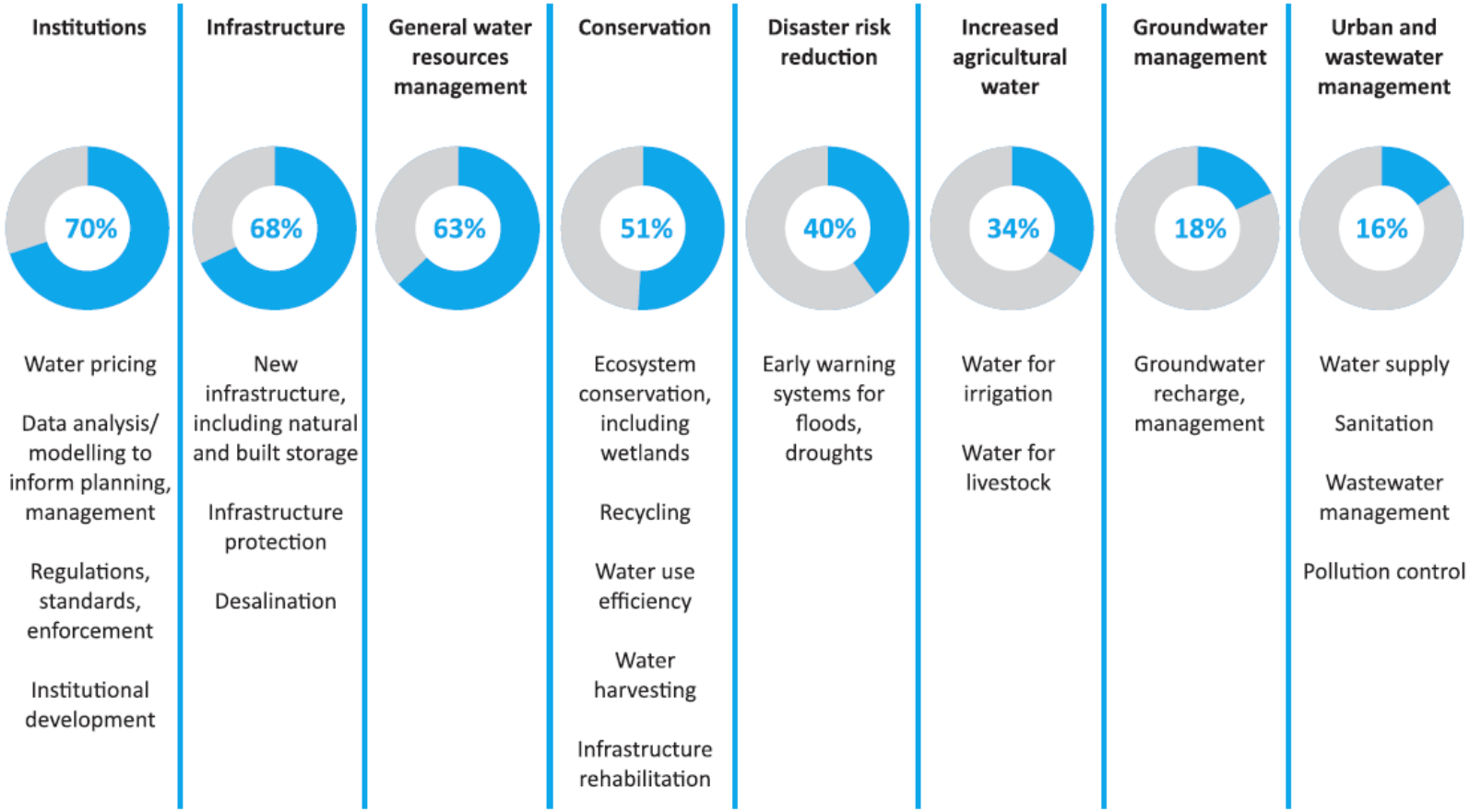
We sought to understand country priorities in terms of water-related adaptation – and compared those priorities with insights and advice from the United Nations 2018 progress report on implementing the Sustainable Development Goal on Water (SDG 6). We looked at alignments with national development planning processes and coordination across governments.

Importantly for water, we investigated whether countries intended to invest not only in infrastructure but also in getting the necessary management and governance structures in place to manage water under the increased variability, reduced predictability, more frequent and intense extreme events, and new hydrological regimes associated with a changing climate. We also looked at countries seeking to take water-related climate actions via an approach of integrated water resources management – the approach recommended globally and through SDG 6.5.1 for ensuring efficient, sustainable, and inclusive water outcomes.

While more analysis is needed to better understand the drivers behind individual countries' decisions, the emerging insights presented here indicate that there are significant benefits in 'marrying' climate change coordination with good practice established for water management in terms of inclusion and multi-stakeholder consultation. We also point to the urgent need – for countries and their development partners – to bring together institutional strengthening and water governance with more detailed design for projects and programmes and a major drive towards infrastructure investment in the years to come.

www.gwp.org 1

Figure 4. Prioritised water actions for adaptation in NDCs

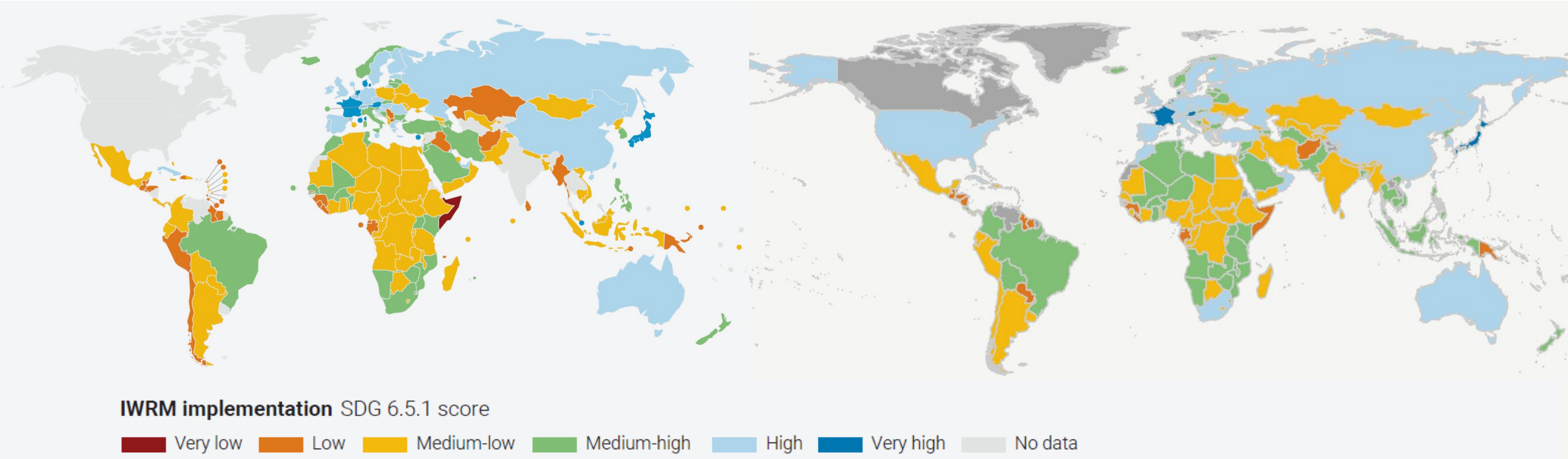


Source: GWP, 2018

SDG 6.5.1 Degree of Integrated Water Resources Management Implementation (0-100)

2017

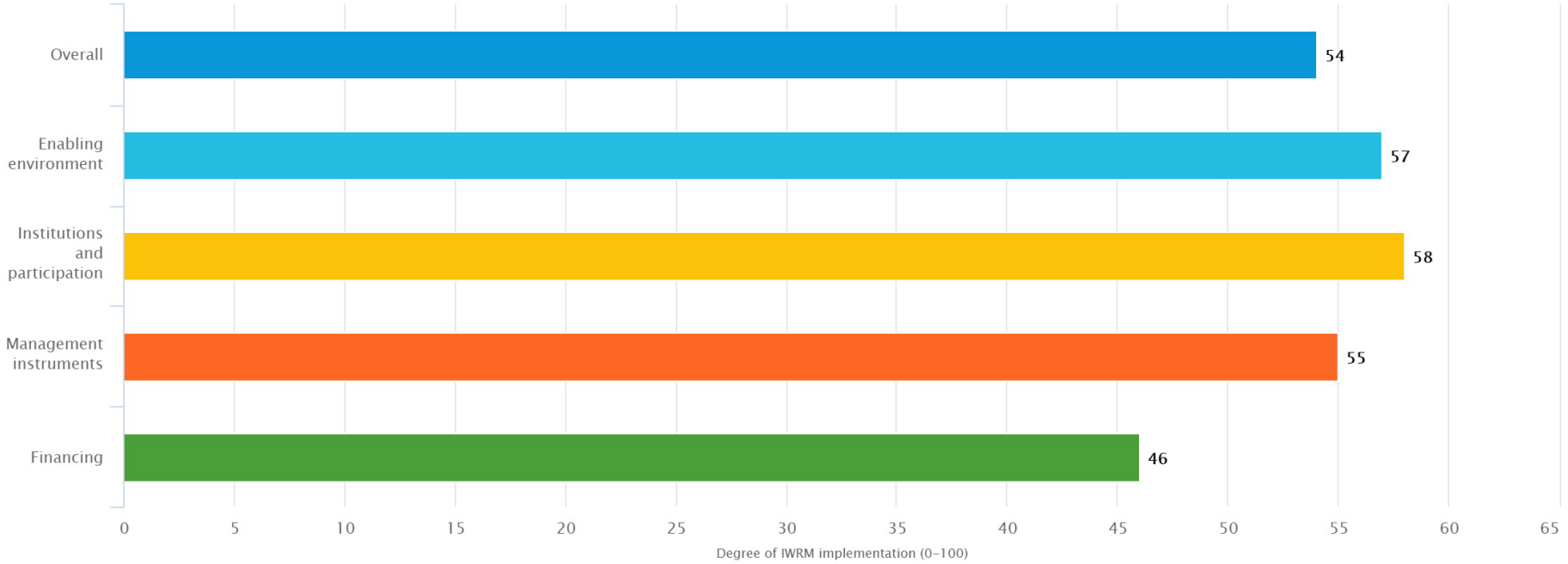
2020



Data source: UNEP
Exported from UN-Water https://sdg6data.org on 28 Mar 2021

Components of Indicator SDG 6.5.1 Degree of Integrated Water Resources Management Implementation (0-100)

2020



Data source: UNEP
Exported from UN-Water https://sdg6data.org on 28 Mar 2021

Highcharts.com

National Adaptation Plans

Out of **154** developing countries

125 have initiated the process to formulate and implement NAPs

21 have submitted a NAP

Only **4** of them are from LDCs

Year submitted	Countries
2015	**Burkina Faso**, Cameroon
2016	Brazil, Sri Lanka, State of Palestine, **Sudan**
2017	Chile, Kenya
2018	Colombia, Fiji, Saint Lucia, Saint Vincent & the Grenadines, **Togo**
2019	**Ethiopia**, Grenada, Guatemala, Uruguay
2020	Kiribati, Paraguay, Surinam
2021	Kuwait

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

NAP Water Supplement:

NAP in the context of the SDGs, Paris Agreement, DRR priorities

- ✓ **Assessment of adaptation needs and capacities as part of the NAP process informs the adaptation component of NDCs**
- ✓ **NAP implementation contributes to NDC delivery**

National Adaptation Plan (NAP)	Nationally Determined Contribution (NDC) & National Communications

- ✓ **NDCs highlight national adaptation needs and gaps in the global arena**
- ✓ **NDCs facilitate mobilization of partnerships, capabilities, and finance for NAP implementation**

SUSTAINABLE DEVELOPMENT GOALS

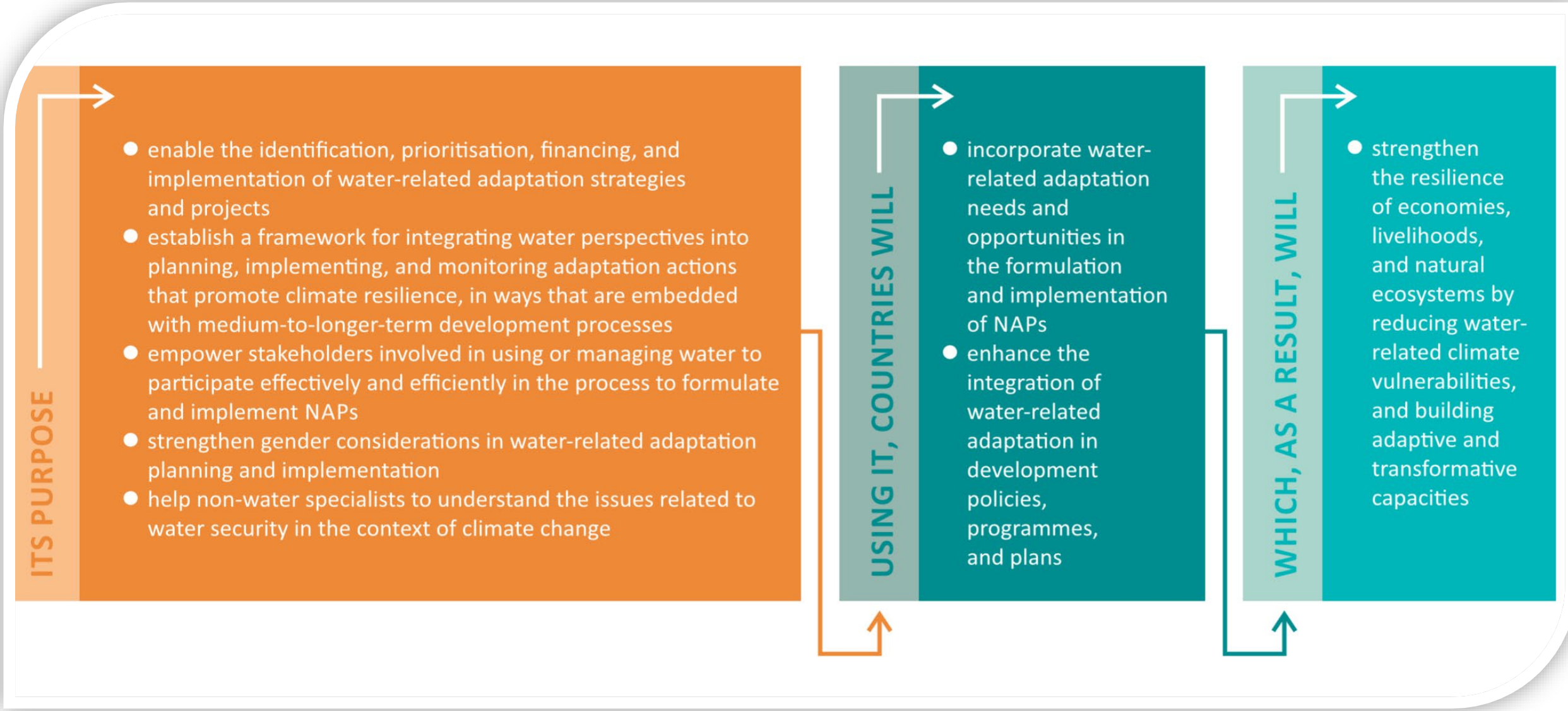
6 CLEAN WATER AND SANITATION | 13 CLIMATE ACTION

UNFCCC

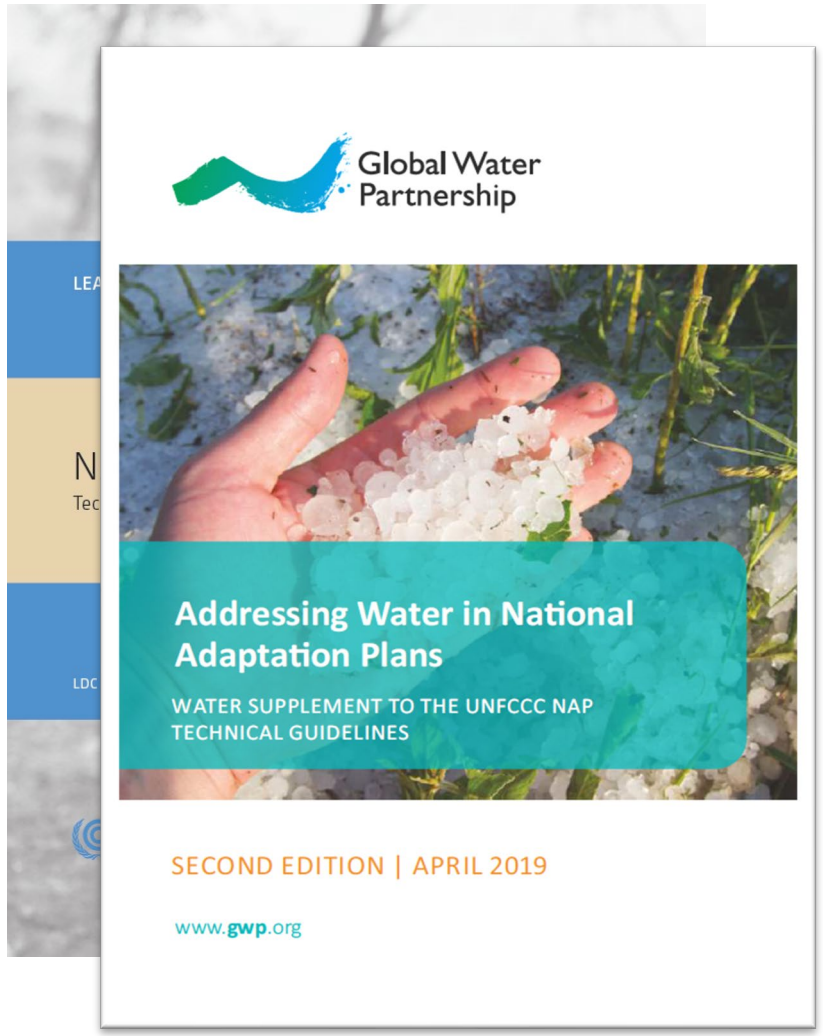
PARIS CLIMATE AGREEMENT

Sendai Framework for Disaster Risk Reduction 2015 - 2030

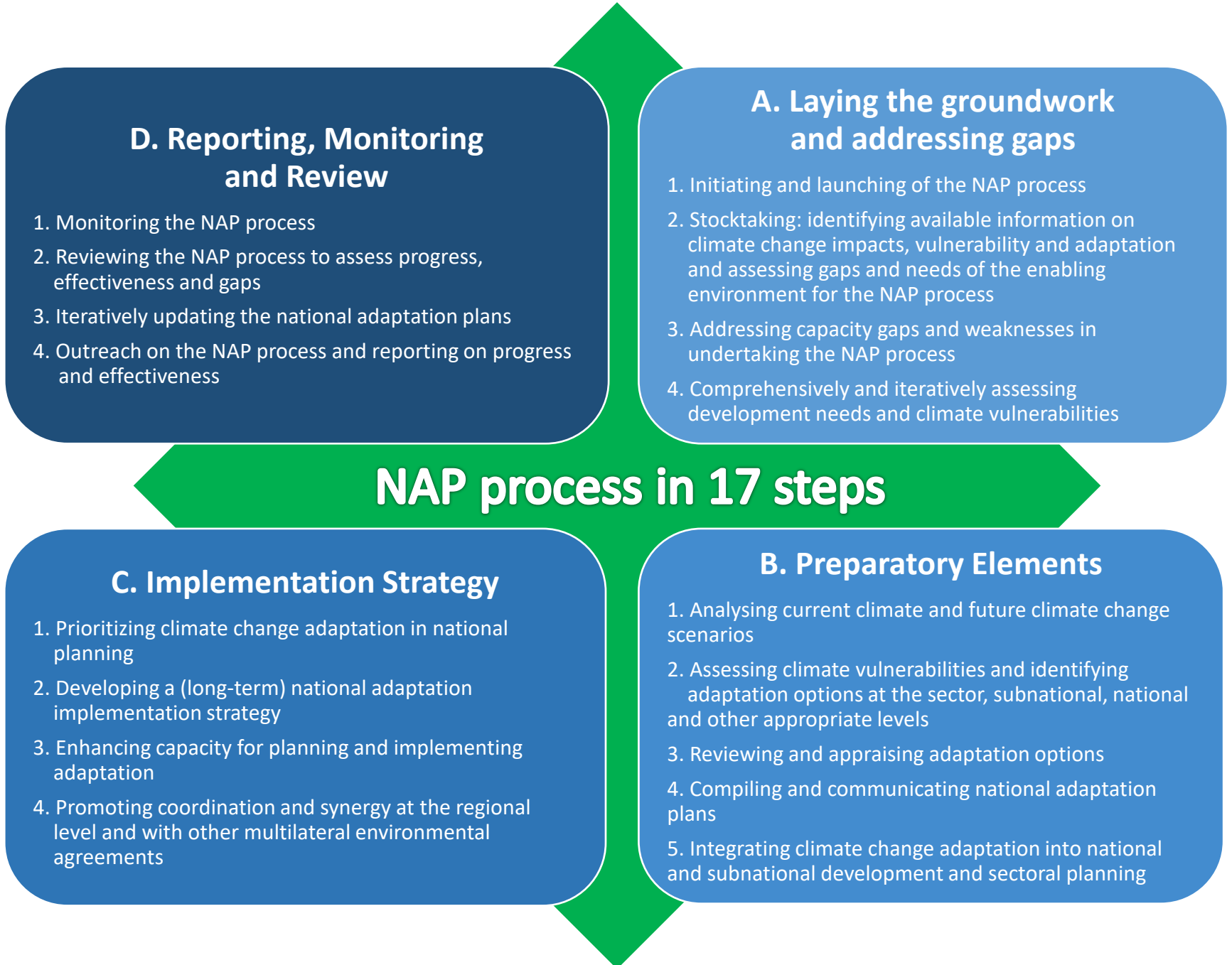
NAP Water Supplement



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

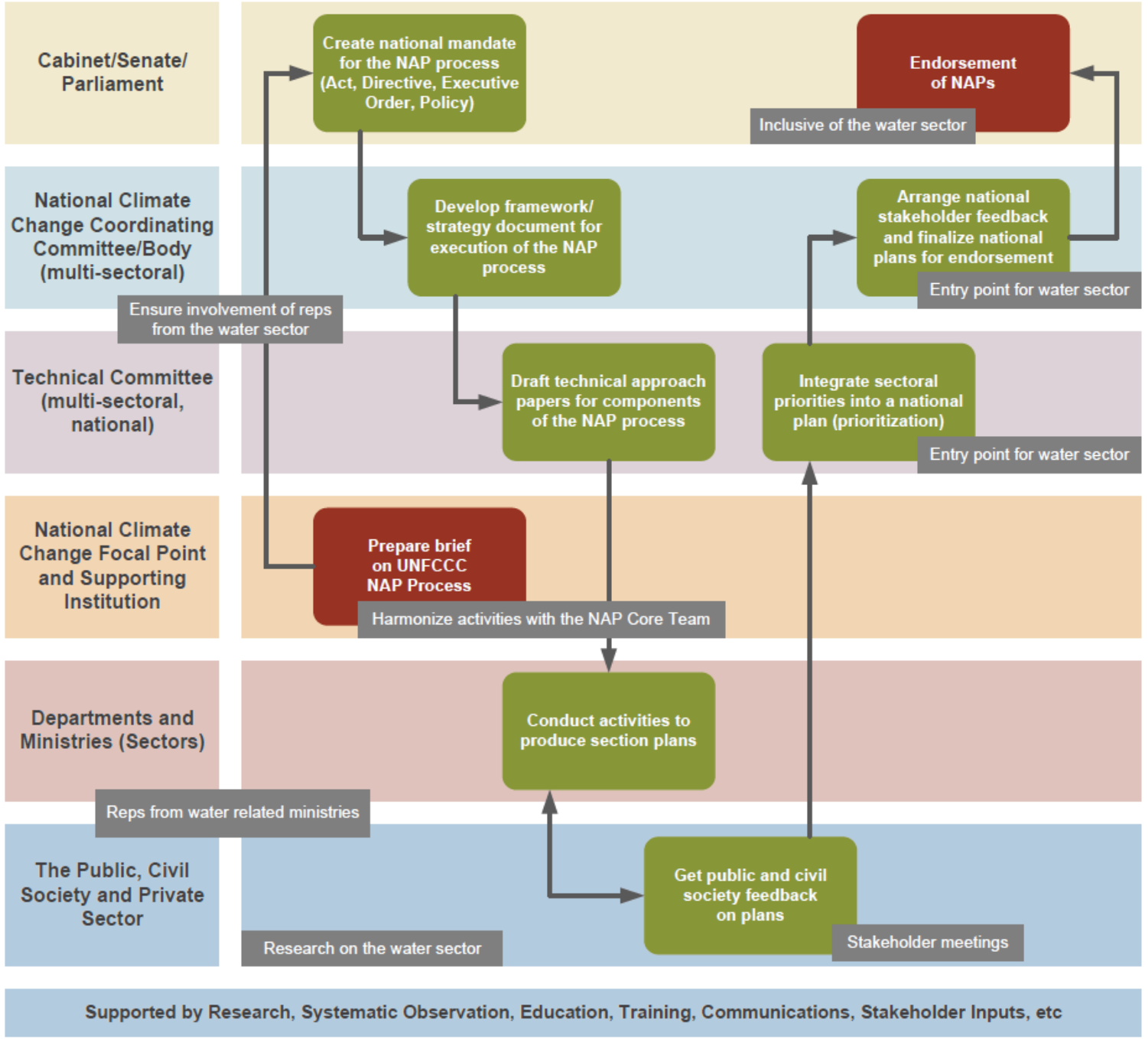


- **Not prescriptive** – countries will scope what exists and what needs to be done, to create streams for their work at the national and sub-national levels
- **Showcase examples**, case studies and recommend key references
- Provide for countries to **build on existing activities** and to "enter" the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


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
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
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

Possible flow of responsibilities for NAP process:

potential entry-points for integrating water



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	- Weather (air temperature, precipitation, wind, solar radiation, humidity, atmospheric pressure) - Weather statistics (historic time series, summary statistics) - Water quantity, Runoff - Water quality - Soil moisture - Groundwater information - Quantitative precipitation forecasting (QPF) - Hydroclimatic extremes (floods and droughts) - Climate forecasts - Decadal climate predictions - Climate change projections - Changes in precipitation, seasonal forecasts	- Water allocation - Irrigation scheduling - Flood and drought estimation - Hydropower generation - Siting, mix of energy sources - Pollution control - Demand scheduling - Floodplain mapping/zoning - Reservoir operations - Risk management measures - Water-management regulations and laws - Design and placement of infrastructure
	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 Management Systems that Build Resilience

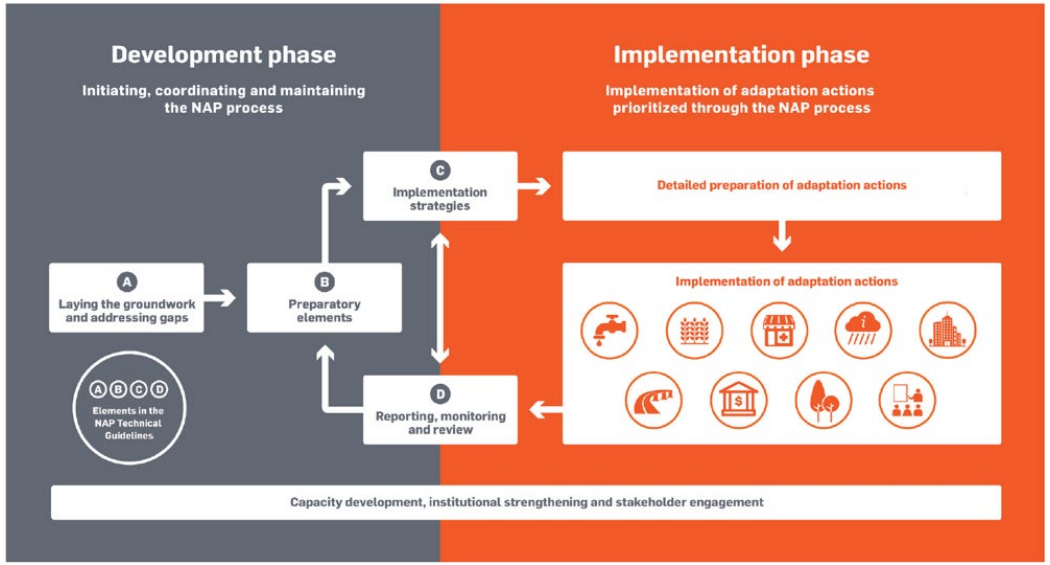
	Characteristics of Resilience	Water Management Systems That Build Resilience
Characteristics of Resilience in Water Management Systems	**Preparedness** to manage and cope with change and shocks	Flood forecasting, early warning systems, emergency response plans, flood protection plans, urban planning and development, storage, system operating rules, land-use management, watershed management, preservation of natural infrastructure
	Diversity and redundancy 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
	Integration or connectedness 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
	Robustness 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	**Adaptability** 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
	Transformability 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 of Transboundary Coordination

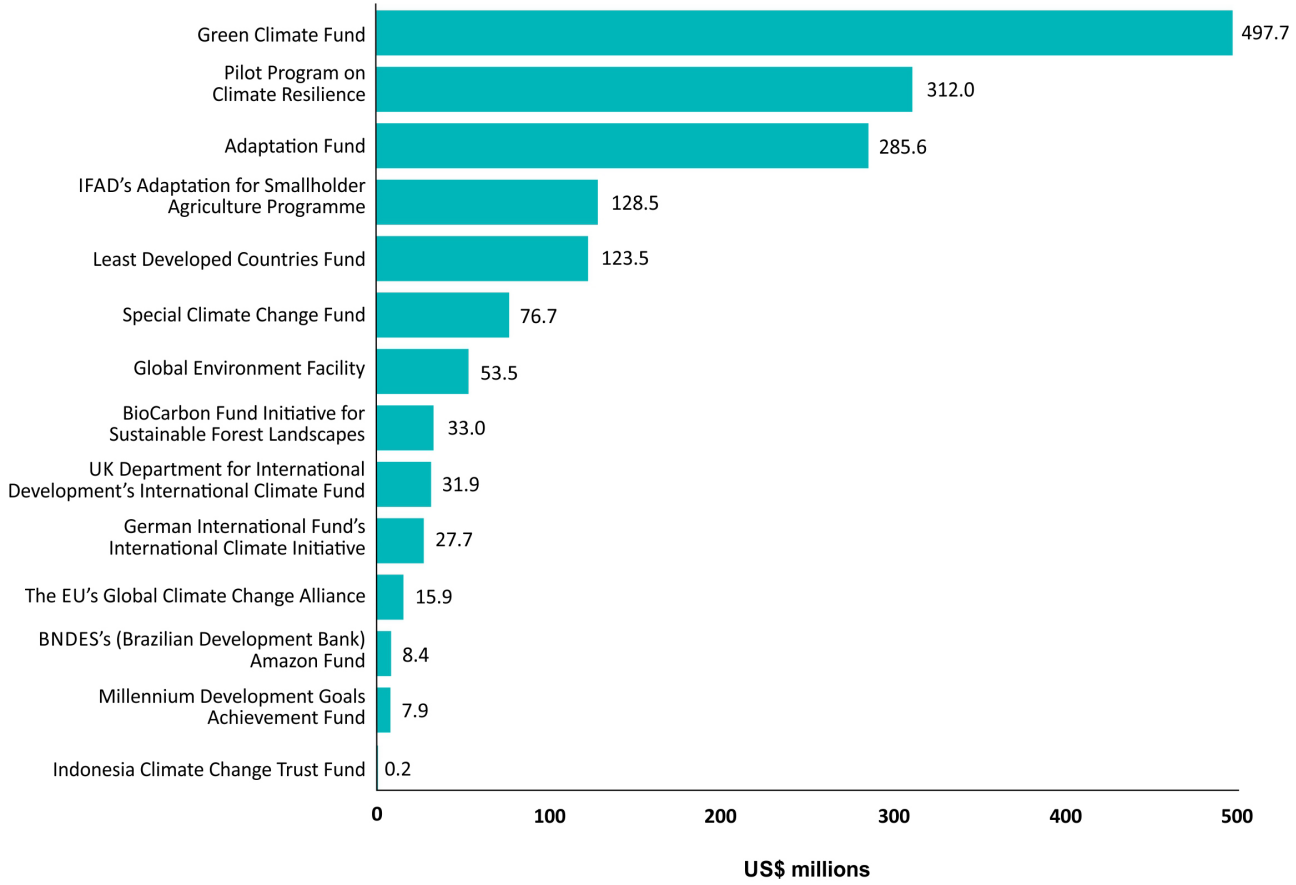
Water Management Systems		Level of Required Actions		
			National	Regional
Information Systems	**Data monitoring and sharing systems**	Data collection, verification, quality control; Use of shared information for preparedness to flood, drought; Data dissemination and sharing with relevant sectors, local stakeholders, and regional entities; Harmonization of national practices with regional protocol	Agreement on data collection and sharing protocol; Regional platform/mechanisms available for exchange	
Information Systems	**Decision-support information systems and early warning systems**	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	
Institutional Systems	**Flexible policy and legal instruments**	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	
Institutional Systems	**Institutionally and financially sustainable water resource organizations**	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	**Basin-scale, resilience-targeted, investment planning**	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	
Infrastructure Systems	**Robust Infrastructure Investment Implementation**	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



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

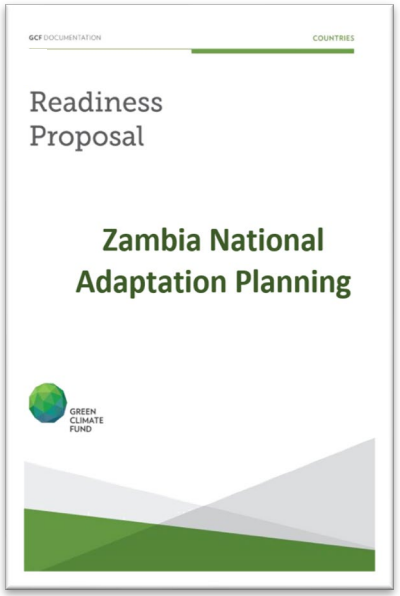


Note: Excludes electricity-generating related products but includes a small number (c30) of projects relating to energy use for irrigation, etc.

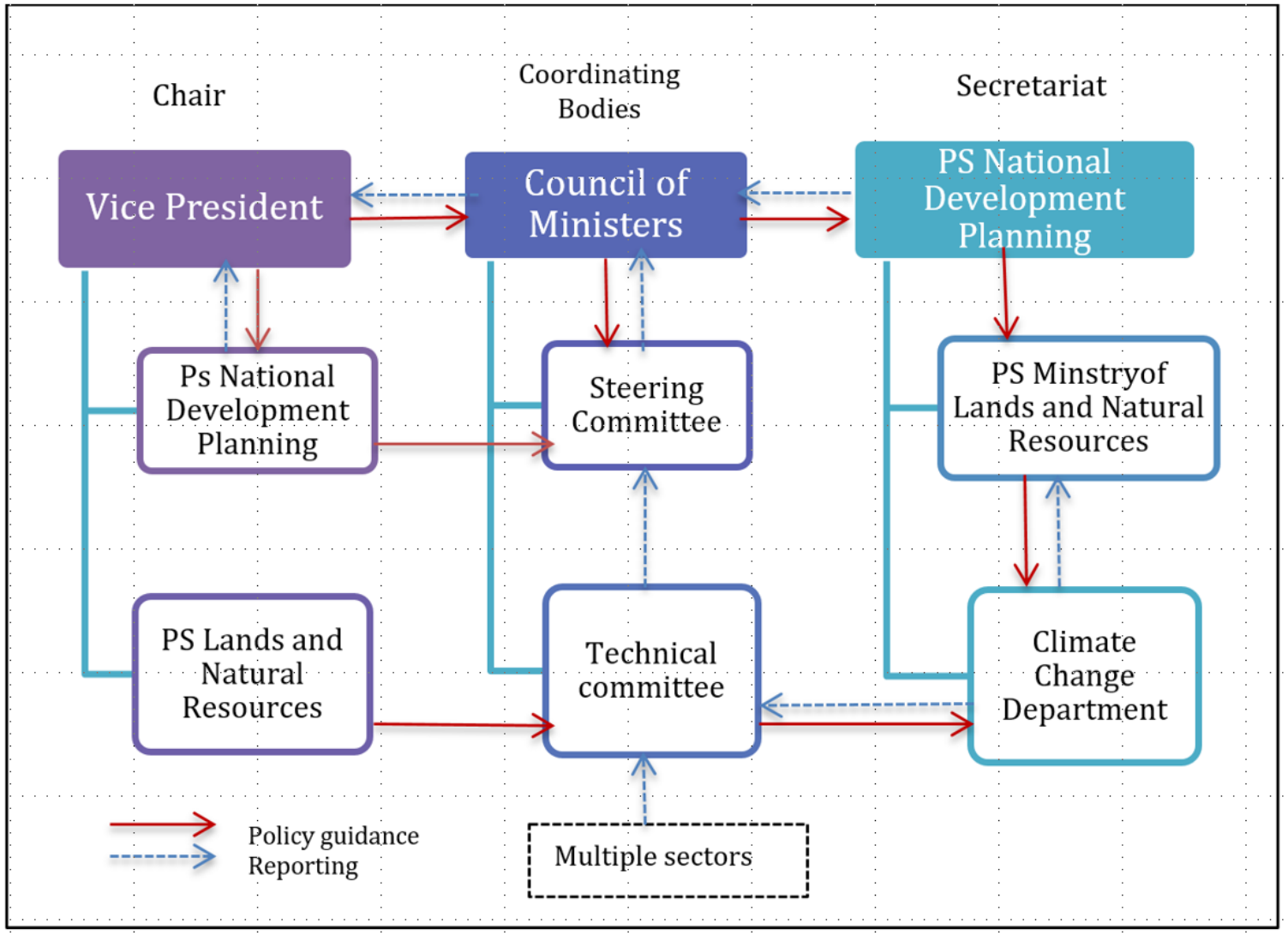
Key Messages

- 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.
- 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.
- 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.

Zambia NAP Process: Institutional and Policy Alignment NAP-NDC-SDGs



NAP coordination aligned with the Zambia's Climate Change Institutional Arrangement



Source: MLNREP 2016; National Climate Policy

NAP aligned with the NDC and SDGs (Development Plan)

7th NDP, SDG

Climate policy, Strategy, NDC

NAP, Climate Programs/Projects

A comprehensive NAP for Zambia

Prosperous, Climate Resilient, and Green Economy (Vision 2030)

Climate change vulnerabilities reduced, adaptive capacity built, and resilience improved in Zambia's economic systems, livelihoods, and ecosystems

How will NAP contribute to the vision? By having

1) By enabling national development policies, strategies, plans, programs and budget processes to be climate-responsive

2) By accelerating implementation of climate change actions…better coordination, strong capacities, prioritized actions and resources

Institutional coordination and collaboration for adaptation planning strengthened

(1. Getting Organized)

- Capacities and mechanisms for coordinating CCA
- tools for reporting, monitoring and reviewing CCA plans
- A NAP communication strategy

A system of integrating climate change adaptation into plans and budgets established

(2. Planning)

- Tools for integrating CCA into plans and budgets
- Capacities of Planning and Budget Units to integrate CCA into plans & budgets
- CCA integrated in reviewing and implementing the **7NDP**

Prioritized adaptation actions for sectors and geographic areas developed

(3. Prioritizing Actions)

- Knowledge base for adaptation planning
- Tools & capacities for CCA options appraisal & prioritization
- Prioritized CCA actions with implementation strategies

Capacity for implementing NAP strengthened

(4. Capacity for Actions)

- Capacitated sectors+ for implementing NAP

Strategy for mobilizing financial & other resources for NAP implementation developed

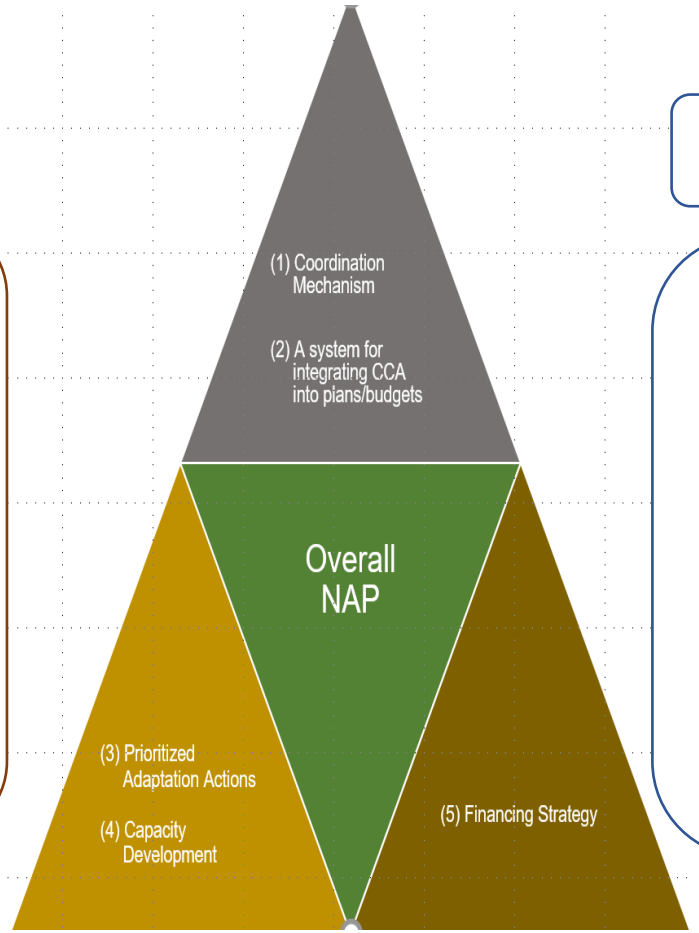
(5. Resources for Actions)

- Resource mobilization, for NAP and **NDC** implementation

Zambia NAP considers gender differences in vulnerability and adaptive capacity

Phase 1:* overall *NAP

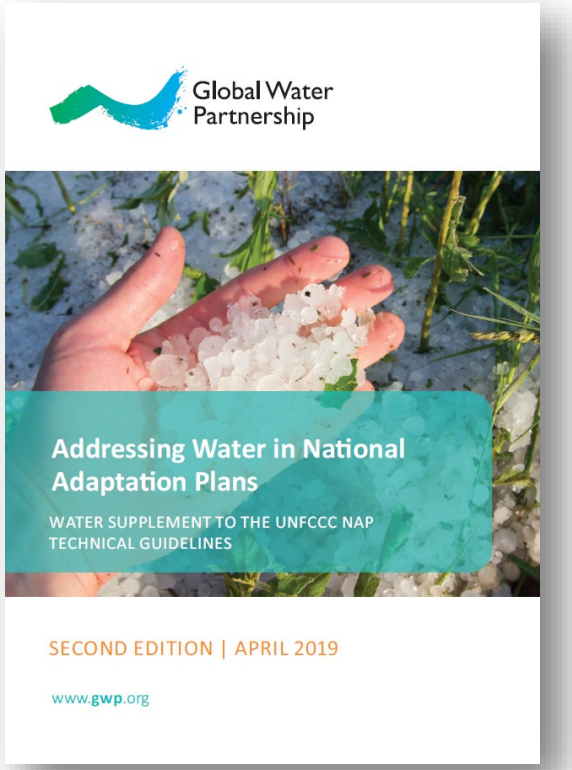
The overarching NAP framework will enable long term strategic planning and coordination of adaptation in line with National Development Planning processes and foster coherence and synergies with sectoral NAP planning processes



Phase 2 Water NAP

Sectoral NAP (Water+)

Recognising 'water as a connector', essential to all sectors, a Water NAP will serve as an important pathway for building resilience and strengthen synergies with the water-sensitive sectoral plans in Zambia such as health and agriculture



English

https://www4.unfccc.int/sites/NAPC/Documents/Supplements/GWP_NAP_Water_Supplement_May2019.pdf

Español

https://www.gwp.org/globalassets/global/gwp_nap_suplementoagua.pdf

Français

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