

# Proposed GCF Strategy for the Water Sector

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GREEN  
CLIMATE  
FUND

# Water and Climate Change

- Water is the primary medium through which we experience the effects of climate change
- Too little, too much or too dirty water - changes in quantity, timing, distribution and quality of water
- Examples: droughts, floods, sea level rise, storms, seawater intrusion into groundwater, landslides

The scale of global economic losses related to water insecurity is estimated at USD 474 billion per year\*

USD 260 billion due to inadequate water supply and sanitation

USD 120 billion due to floods

USD 94 billion due to drought

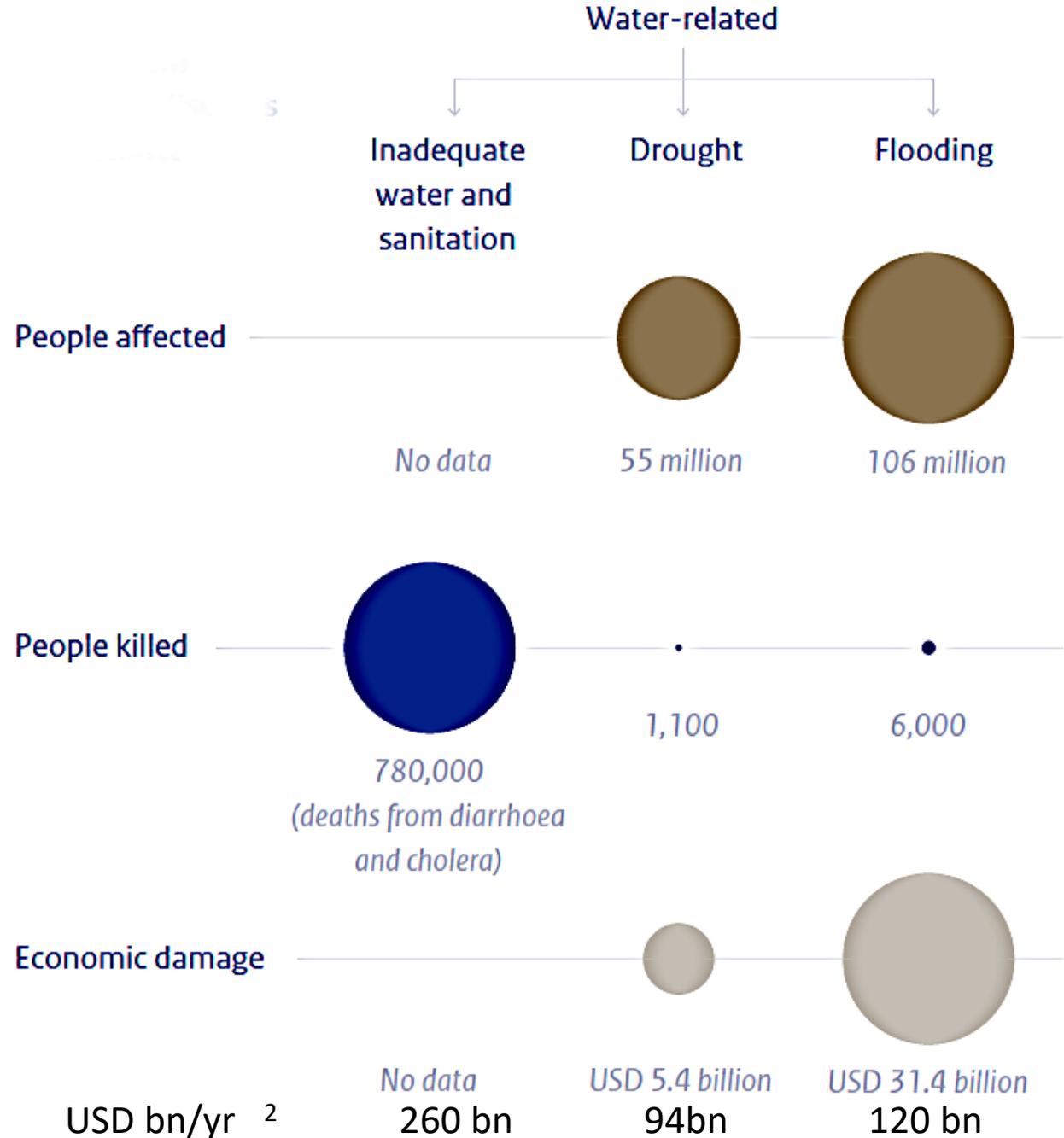


# Impact of inadequate water and sanitation, drought and flooding

*(People affected, killed and economic damage)*

Projections of water security investment needs diverge.

Global estimates range from USD 6.7 trillion by 2030 to USD 22.6 trillion by 2050.<sup>2</sup>



# Water related challenges are inter-related

## Drivers

Population growth  
Economic growth;  
Urbanisation

Climate change  
Rising temperatures;  
Changing precipitation  
patterns

## Water-related challenges

Growing demand  
for water

Increasing consumption  
and waste

Increasing agricultural  
production

Expanding cities  
and informal settlements

Increasing production  
of renewable energy  
(hydropower/biomass)

Desertification;  
Drought

Extreme weather events

Warming of oceans  
and sea level rise

Water  
and food  
production



Water  
pollution  
and human  
health



Flooding



Water-related  
energy  
production

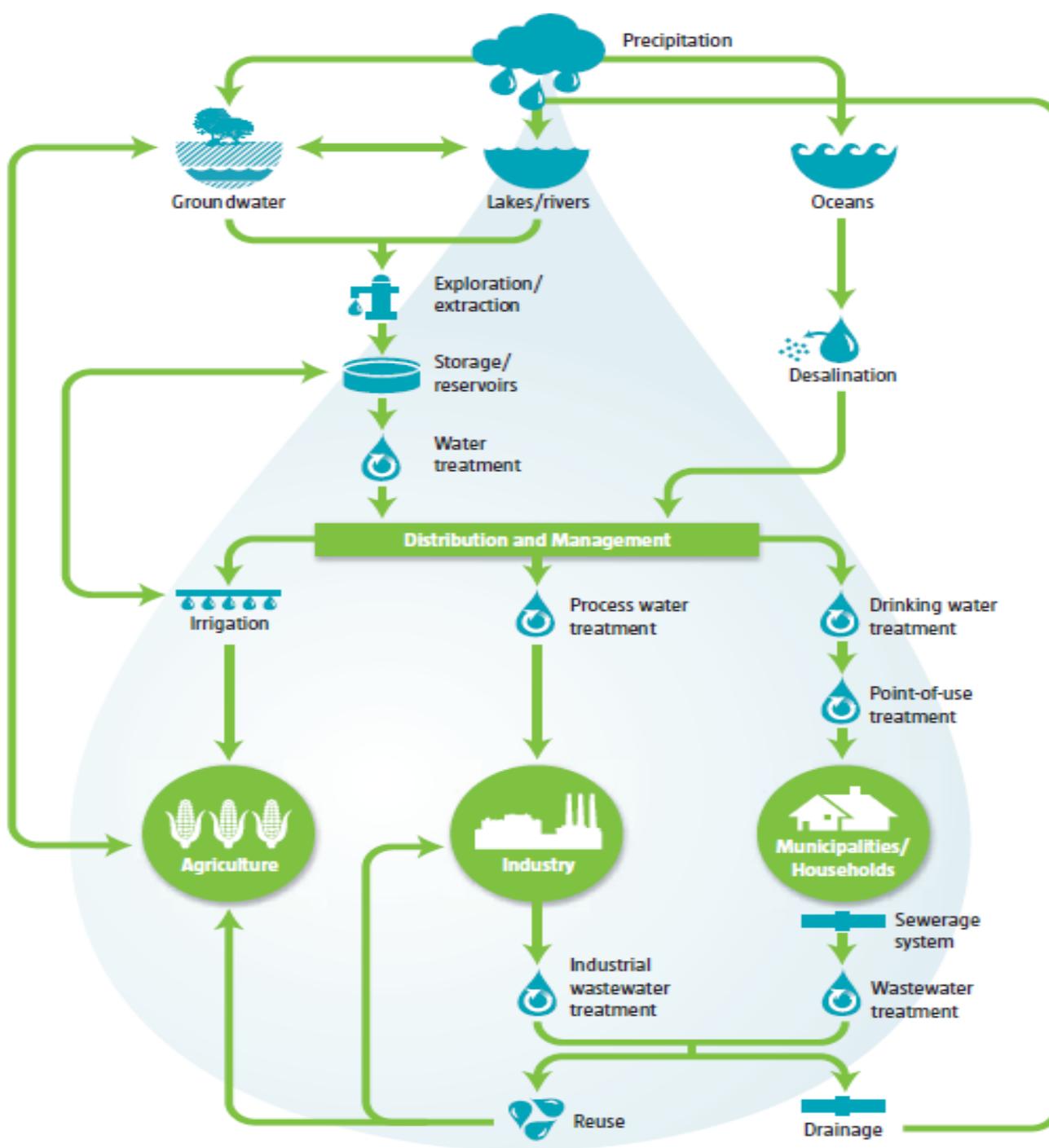


Ecological  
quality  
of aquatic  
ecosystems



Water,  
migration  
and conflict





## The Water Value Chain

- Proportion of water for agriculture, industrial and domestic use vary by country
  - In most catchments agricultural use predominates by a large margin
- The inter-related nature and cyclical of the water value chain highlights the importance of prudent water management at every stage of each 'stream'. Impacts on water quality, geomorphology ....
- Important to stress the high energy use in the water sector – 15+% of total energy use in certain countries.

# Globally, where are the gaps?

## Financial Instruments

- Water projects often grant-financed, despite income-generating potential

## Private sector participation

- Limited private investment in the water sector - lack of a 'business case'
- Highly politicised issue

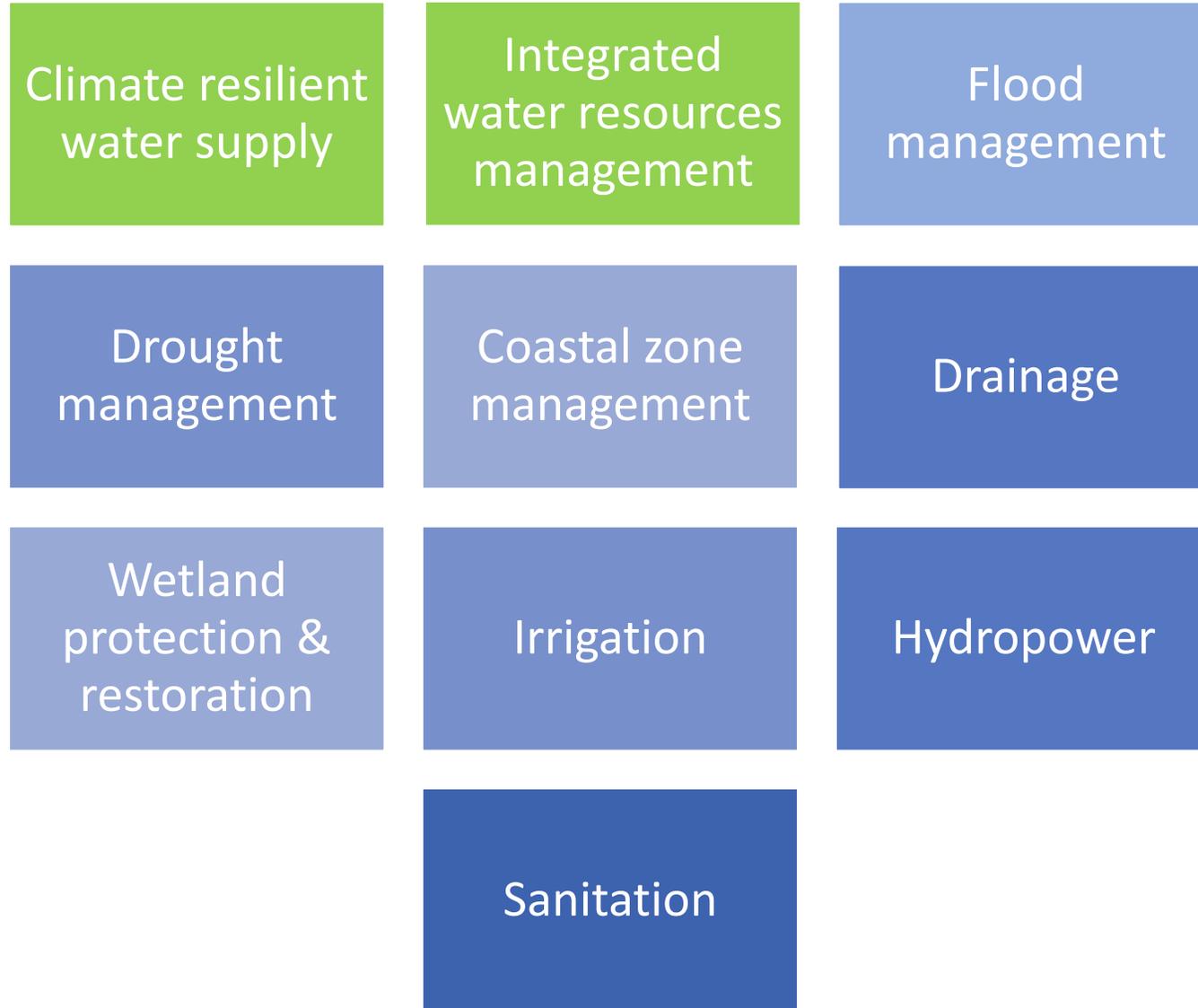
## Water as a human right

- Progress on WASH services to most vulnerable at risk due to climate change, and other factors

## Operations and Maintenance

- Remains challenging; much infrastructure operated sub-optimally

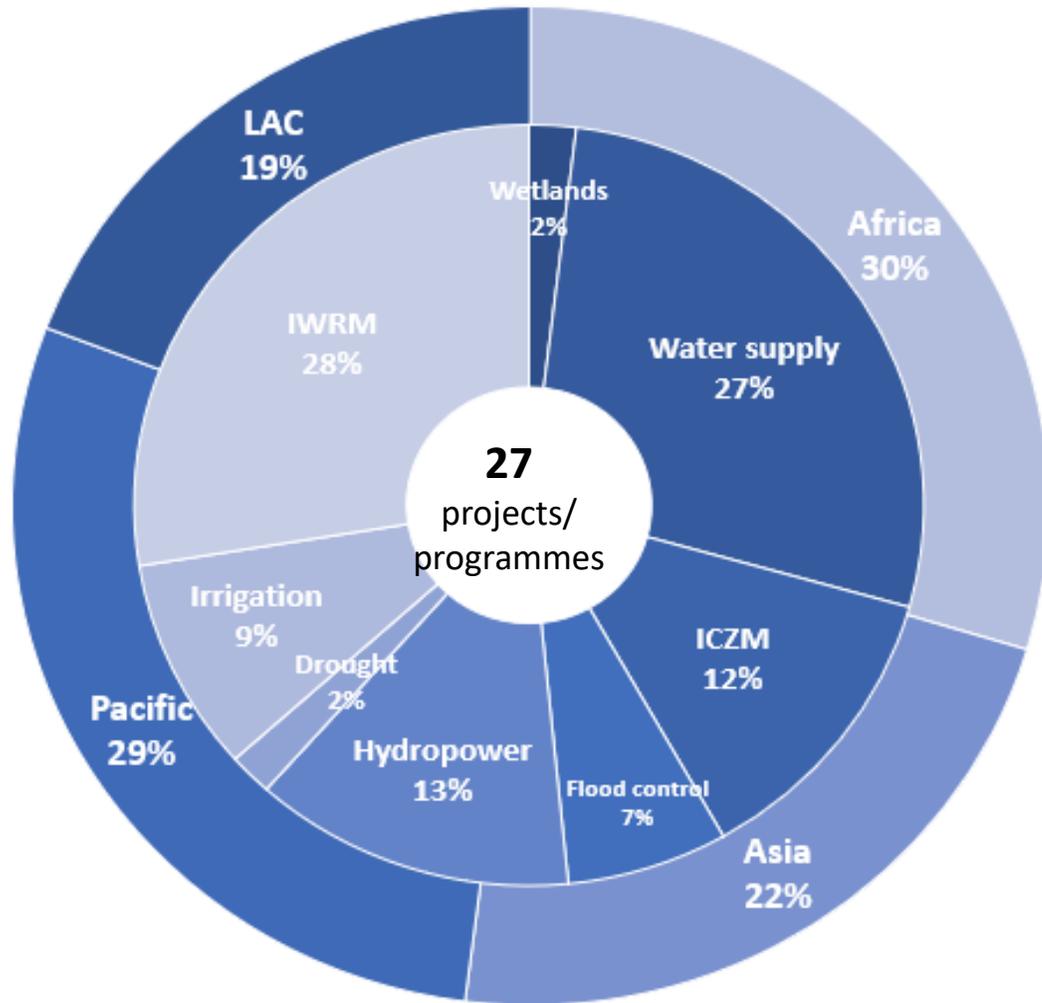
# Portfolio Overview



## Water Subsectors

- CONCENTRATION into 2 major subsectors
- While some subsectors are cross-cutting and may be categorised under other sectors, they all involve changing the way water is managed and/or used.
- Most projects include:
  - water governance and enabling environment initiatives
  - and/or
  - capacity building

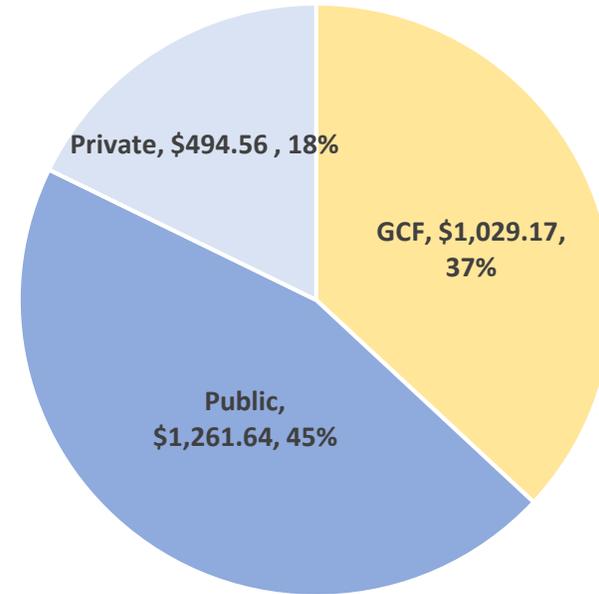
# Water in the GCF portfolio



*Funding*

*as of B.22 (total \$ 2,785m)*

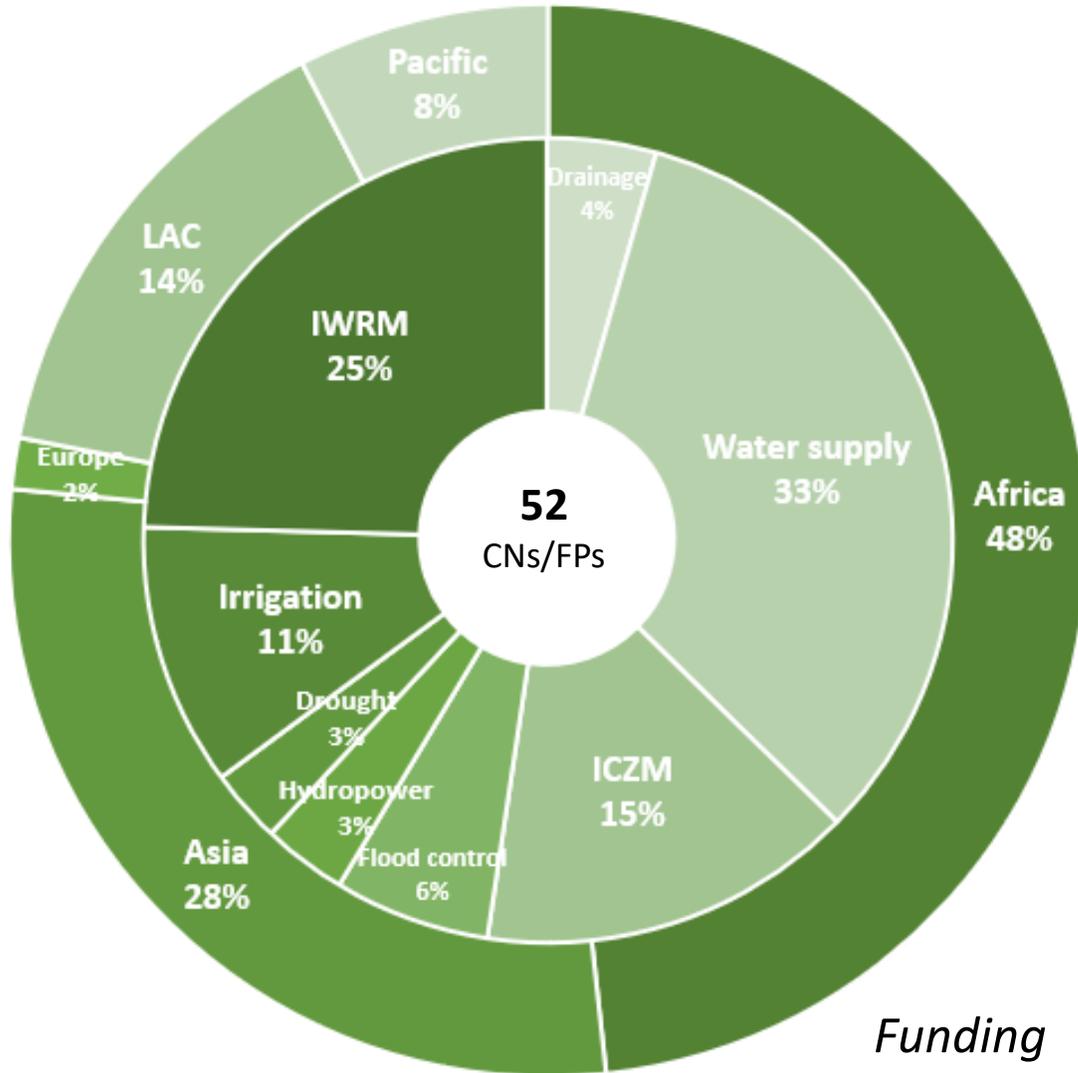
*Co-finance*



Unit: million USD

- 2.3 million people provided with year-round water access
- Over 1 million people protected from flooding
- Water management enhanced in 26 countries

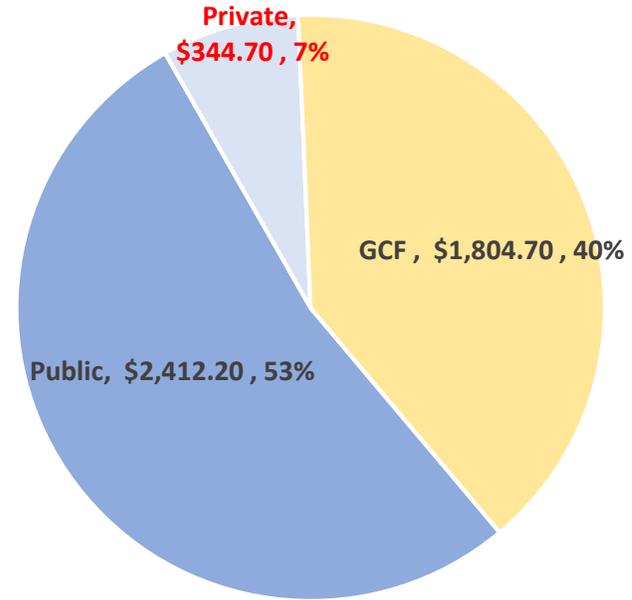
# Water in the GCF pipeline



*Funding*

*as of B.22 (total \$ 4561m)*

*Co-finance*



Unit: million USD

- Almost half of the demand for water investment is in Africa
- Water supply and integrated water resources management continue to be of greatest need
- Private sector co-financing is significantly lower in the pipeline than in the portfolio

# Where are the GCF water portfolio's gaps?

## Financial Instruments

- Lack of application of financial instruments other than grants

## Private sector participation

- Limited private investment in the water sector

## Water sub-sectors

- Low investment in drought management, urban drainage and wetland protection/restoration
- Water governance
- Little IWRM - disconnected and silo approach - little consideration of options

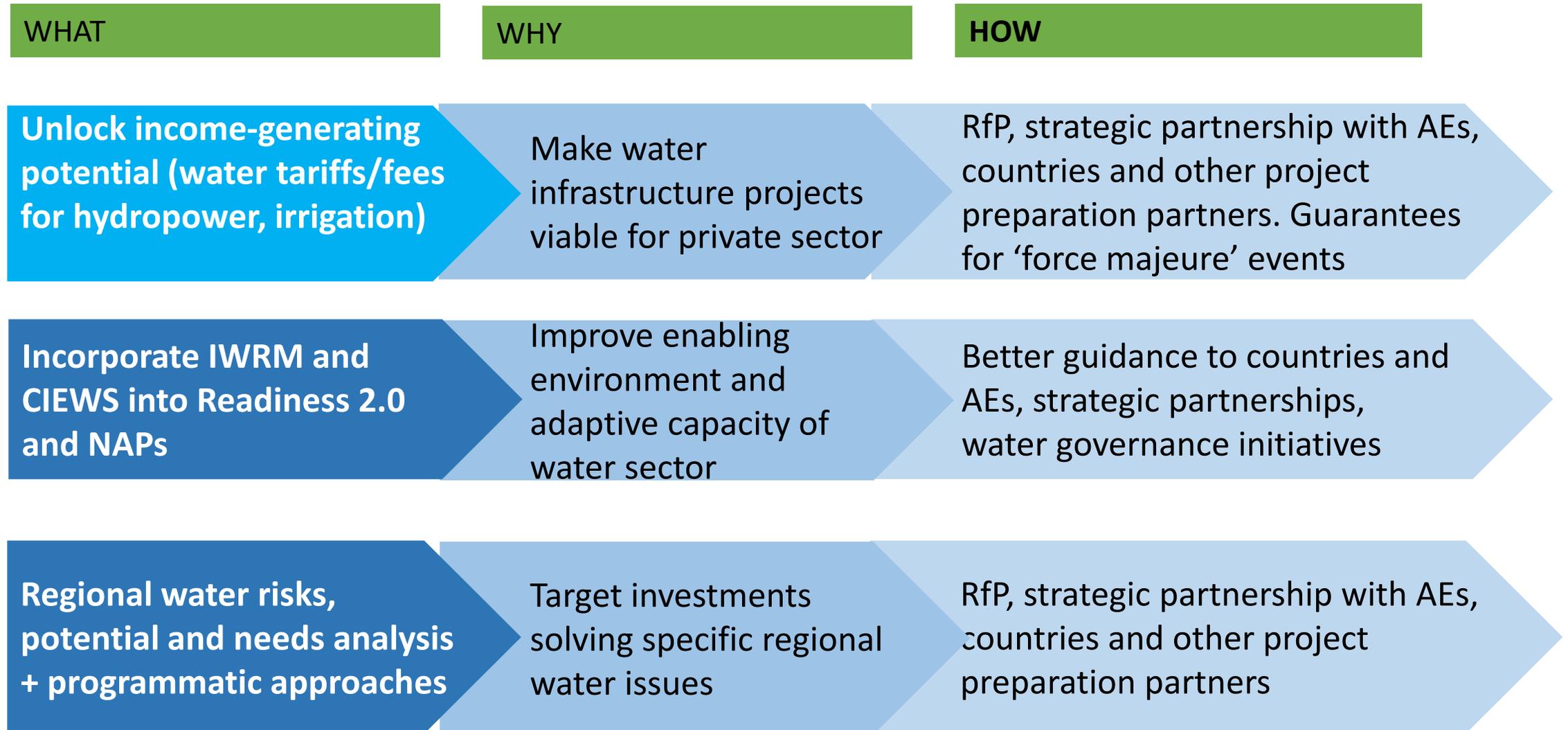
## Regions

- Southeast Asia and Southern Africa are relatively under-represented in both portfolio and pipeline

## Operations and Maintenance

- Unviable / unclearly defined responsibilities, and/or subsidies needed

# Pursuing Impact in the Water Sector



# Strategic direction for the GCF water portfolio

## Enhancing adaptive capacity

- Availability and use of hydrological information for planning
- Early warning systems, especially the 'last mile'
- IWRM, coordination among stakeholders across a catchment, across sectors, and across borders

## Driving the paradigm shift towards private sector participation and loans

- Particularly for subsectors that have income-generating potential (water supply, hydropower, irrigation) – innovation to engage
- Complementarity with other climate funds (e.g. AF and LDCF, which address the immediate needs of the most vulnerable through community resilience and livelihood projects)

## Achievable through de-risking investment in water

- Based on a **risk analysis**, GCF can help overcome barriers by applying the guarantee instrument, co-financing weather-based insurance projects, and co-financing multi-purpose water infrastructure projects with private investors

# Linking water to other sectors: Integrated Water Resources Management (IWRM)



- “A holistic process which promotes the coordinated development and management of water, land and related resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems and the environment.”
- Closely links the water sector to all other climate sectors – climate information, ecosystems, agriculture, forestry, health, infrastructure, urban development, energy...
- Because of its links to all other sectors, we consider it a priority water sector intervention for GCF.

<b>ToC statement</b>	IF (1) IWRM and landscape approaches are applied in planning; (2) enabling environment and adaptive capacity are enhanced; (3) de-risking approaches and tools are deployed; (4) key water sector interventions identified and projects to address these developed; and (5) blended financing is made available for these key water projects, THEN water security will be improved, BECAUSE prioritization will be clear and public and private sector investments will be encouraged and supported.			
<b>Outcomes</b>	<b>Transformational planning and programming</b>	<b>Catalyzing climate innovation</b>	<b>Mobilization of investment at scale</b>	<b>Expansion and replication of knowledge</b>
<b>Outputs</b>	IWRM and landscape approaches applied in planning and programming	Key water sector interventions identified and projects to address these developed  Enabling environment and adaptive capacity enhanced at national level	De-risking approaches and tools deployed	Lessons learned from successful PPPs in the water sector documented and disseminated
<b>Activities</b>	Develop water-specific NAP guidance  Promote IWRM and landscape approaches in planning  Build capacity of NDAs to facilitate multisectoral coordination and private sector engagement	Enhance enabling environment and adaptive capacity via IWRM and CIEWS  Support the development of methodologies to select key water sector interventions to maximize water security  Support development of water tariffs to enable payment for water resource use  PES systems developed involving water resources where private sector is the payer	Deploy blended finance and PPPs to scale up investments solving specific regional water issues (based on regional water risk analysis, potential and needs analysis + programmatic approaches)  Use GCF resources as risk-tolerant capital able to bear 'first loss' leveraging larger amounts of long-term capital  Apply de-risking approaches and tools for income-generating projects such as water supply, hydropower, irrigation to enhance private sector engagement	Train AEs and NDAs in IWRM and the mitigation and adaptation benefits thereof  Hold regional awareness-raising workshops on the sectoral guidance
<b>Inputs</b>	NAP and Readiness funds	Project preparation funds and consultants  Water subsectoral guidance on how to develop good water projects	Coordination on water investments with MDBs  Strategic partnerships with key private sector players in the water sector (e.g. Veolia, Suez, Xylem)	Sectoral guidance for development of transformative water projects that meet climate adaptation and mitigation objectives
<b>Barriers and Risks</b>	Limited capacity of NDAs to foster multisectoral coordination and private sector engagement hinders development of bankable water projects	Lack of water resource data hinders investment in conjunctive use of different sources (surface water, groundwater, rainwater, desalinated water, recycled wastewater)  Water infrastructure often requires very high capital expenditure.	Water still largely perceived as a public good, thus unattractive for private investment; Water infrastructure projects in developing countries often carry political, economic, environmental and technical risks that can make them unattractive to private investors; There may be development finance available to cover higher-risk projects, but often there is limited access to capital at local level.	Lack of understanding of what makes a good water project a good climate project/tendency to assume that a water project is automatically a climate project

# Selected potential partners and roles



- **UN-Water:** Formal collaborative mechanism for UN agencies and other international organisations working on water
  - Several AEs as members
  - Essential for GCF to join in order to influence global water sector development



- **K-Water:** Local collaboration beneficial for knowledge exchange, technical assessments
  - Potential technology transfer to developing countries
  - Technical field visits during conferences and Board meetings



- **Netherlands :** Foreign Ministry, Environmental Assessment Agency, Ministry of Infrastructure and Water Management, Delta Commission.
  - Water as Leverage initiative and GCF Water sector guidelines development

# The Goal: Integrated Water Resources Management Leads to Water Security for All

“The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability.”

*Working definition, UN-Water, 2013*

