WATER RESILIENCE TRACKER

GLOBAL TRENDS IN CLIMATE-WATER RESILIENCE

Navigating the Policy, Finance, and Climate Landscape

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Foreword

As the global climate crisis deepens, water is increasingly understood not just as a casualty of climate change but as a critical pathway to resilience. The UK Government recognises that achieving the goals of the Paris Agreement and the Sustainable Development Goals depends on securing water for people, nature, and economies. That is why we are proud to support the Water Resilience Tracker as part of the Just Transitions for Water Security (JTWS) programme.

This Global Trends Report on Climate and Water Resilience provides a timely, practical, and forward-looking guide to the evolving global landscape of policy, finance, and institutional frameworks. It sheds light on the real-world barriers countries face in delivering water resilience and, crucially, identifies where we must act - together and with urgency.

Through partnerships in Brazil, Egypt, Malawi, and Nepal, the Water Resilience Tracker is demonstrating that it is possible to turn global climate commitments into local action. It is providing governments with the tools and confidence to integrate water into their climate strategies, attract finance, and protect the communities most at risk.

As we look to COP30 and beyond, the UK remains committed to supporting systemic, inclusive approaches to resilience. This means tackling climate and water challenges not in silos, but through joined-up solutions that benefit people and planet alike.

We hope this report will inform decisions, shape action, and inspire greater ambition from all who share our commitment to a water-secure and climate-resilient future.

GERARD HOWE

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Foreign, Commonwealth & Development Office (FCDO), United Kingdom

Introduction: Water Resilience as a New Global Agenda

We've entered a new era of climate action, policy, and finance, and this Global Trends Report is meant to serve as a field guide to new drivers, issues, and opportunities around climate change.

Perhaps the most important transition now is from advocacy to implementation. Low-carbon energy is now often cheaper (and sometimes much cheaper) than high-carbon energy systems. Economics has proven to be a more powerful form of advocacy than decades of preaching.

The basis for adaptation and resilience has also changed. In much less than a decade, many decision-makers have shifted from describing climate impacts as something happening in the distant future, limited to surgical engineering issues and the narrow reduction of climate risks, to the widespread integration of adaptation and resilience principles at the initiation of projects, policies, and governance systems.

What are these principles? No clear single definitive set has emerged, but some patterns are clear: working with systems over individual sites, integrating natural and built assets into shared nature-based resilience, managing for multiple uncertain futures rather than definitive end states, designing for flexibility and evolution over time, designing solutions across sectors and institutions, and accounting for economic co-benefits and wealth creation that go beyond risk reduction.

Freshwater resources power all of these adaptation and resilience principles. Water is an inherently system-level resource, linking a dynamic climate with dynamic landscapes and ecosystems, bridging sectors and institutional boundaries. Because of the deep linkages between energy production and carbon sequestration and water, adaptation and resilience are increasingly connected to climate mitigation as well.

This report inaugurates an annual series meant to capture these and other insights and trends. Translating sound principles into actionable and mainstreamed decision-making systems is a huge priority, requiring active collaboration between the water and climate change communities. Water is still new to the climate world, while resilience remains novel to water-focused institutions. By sharing priorities and blending insights, we can identify a shared water resilience agenda and tool set.

The global carbon agenda is becoming a global, national, and local carbon and water agenda.

Not all trends are positive, however. Many multilateral institutions are facing new political and financial challenges, while an increasingly multipolar world may hide within regional and national boundaries the lessons and commonalities that bind us all. This report is intended to resist these trends through the spirit of multilateralism and outline the global evidence base for water resilience.

This report was prepared by the global Water Resilience Tracker team. The Tracker was launched in 2021 by the Alliance for Global Water Adaptation (AGWA) with seed funding from the United Kingdom's Foreign, Commonwealth, and Development Office (FCDO). The Tracker's initial insight was that national climate change targets and policies would be difficult to achieve without leveraging the integrative role of water in resilience. Other institutions aligned their support with

FCDO: the Gesellschaft für Internationale Zusammenarbeit (GIZ), the Inter-American Development Bank, the UN Development Program, and the Global Water Partnership (GWP). After reaching a baker's dozen of countries, FCDO renewed its commitment in 2024 with some 13 million GBP in funding over 4.5 years, while AGWA expanded the depth and intensity of the Tracker by adding three essential new partners: the International Water Management Institute (IWMI), Arup, and Deltares.

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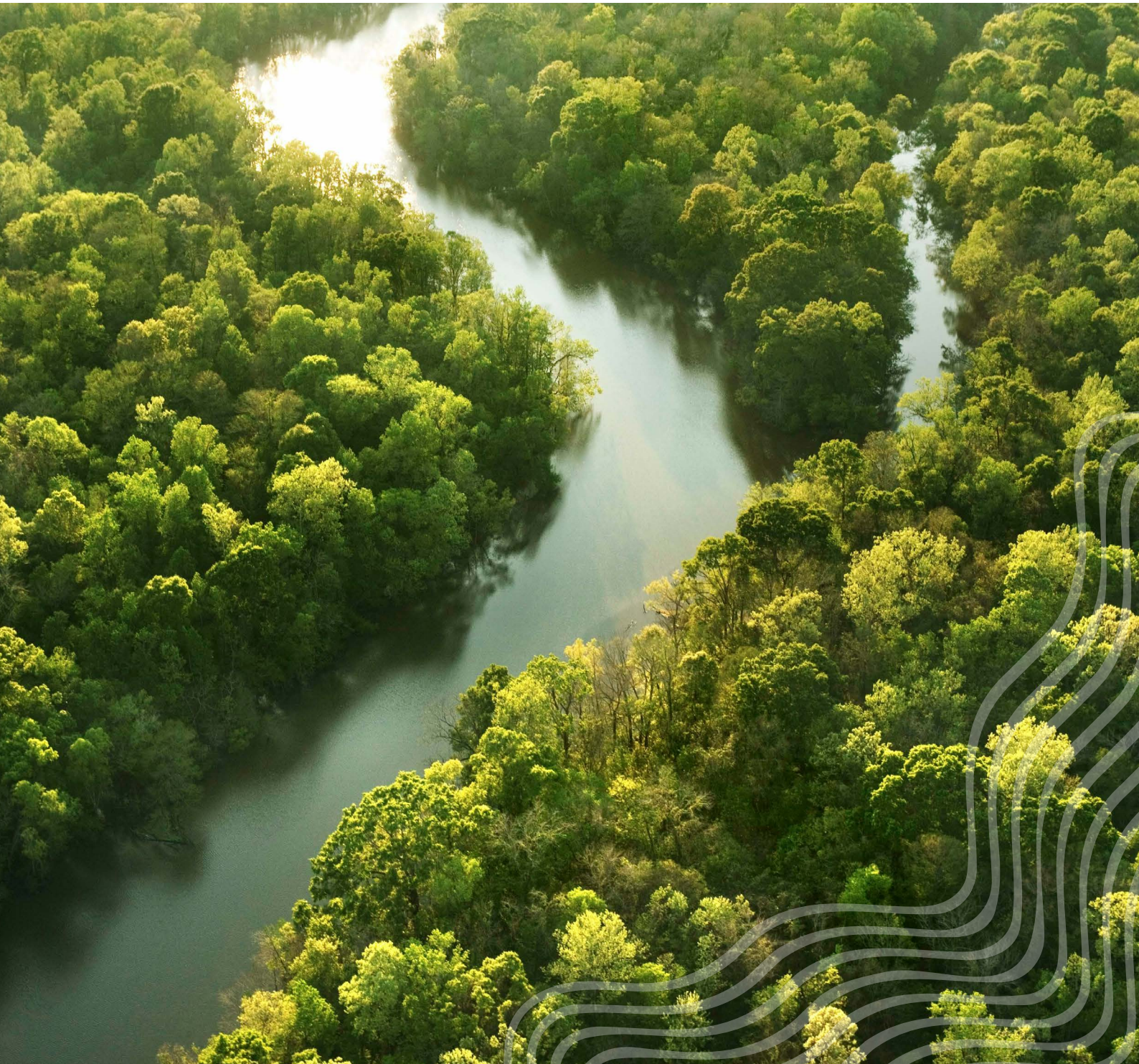
August 2025



Executive Summary

The 2025 Global Trends Report on Climate and Water Resilience provides strategic insights to guide Water Resilience practitioners and decision-makers in navigating the rapidly evolving global policy, finance, and climate landscape.

As climate change intensifies, water remains the primary medium through which its impacts are felt—whether through floods, droughts, water scarcity, or declining ecosystem health.

Despite growing recognition of water's central role in building resilience, significant gaps persist in measurement, integration, and access to finance.

This report identifies those gaps, highlights emerging opportunities, and offers practical recommendations to ensure WRT efforts remain aligned with global developments and country-level needs.

Key Findings

Water's role in global climate governance is growing but further strengthening is needed.	Water is now increasingly recognised within UNFCCC processes, particularly through COP outcomes and the Global Goal on Adaptation (GGA). However, systemic water resilience still needs to be further embedded within national commitments such as NDCs, NAPs, and Biennial Transparency Reports (BTRs), limiting countries' ability to track and deliver tangible progress.
The global water-climate finance landscape remains fragmented, insufficient, and difficult to access.	Despite the existence of major climate funds and development finance institutions, structural barriers—such as weak institutional capacity, data gaps, and unclear pathways for private sector engagement—continue to prevent many countries, especially LDCs and SIDS, from accessing the finance needed to build water resilience.
The WRT fills a critical gap by providing actionable tools, system-based indicators, and country-led technical support.	The Water Resilience Tracker enables countries to integrate water resilience into national policy processes and investment planning, ensuring alignment with global frameworks while addressing locally specific risks.
Opportunities exist to strengthen global and national progress on water resilience.	These include shaping the final set of GGA indicators to better capture systemic water resilience, supporting improved national reporting through BTRs and Long-Term Strategies (LTSs), and catalysing finance by demonstrating readiness and providing technical assistance.

Key Findings

In its first year under the Just Transitions for Water Security (JTWS) programme, the **Water Resilience Tracker (WRT)** has laid the foundations for long-term impact:

- Engagement with over 50 institutional stakeholders across Brazil, Egypt, Malawi, and Nepal to advance water resilience planning.
- Joint national missions with Fair Water Footprints (FWF) to align governance and policy reform efforts.
- Development of an updated, system-based indicator framework, informed by leading methodologies from AGWA, CRIDA, and CWRA.
- Active participation in global climate dialogues, raising the visibility of water resilience as a central pillar of climate action.

In its second year the WRT aims to continue engaging with Malawi, Brazil, Nepal and Egypt, to mainstream climate-resilient water management in planning and strategies across sectors. WRT does this by providing Capacity Development, Institutional and Policy Support, and Technical Guidance and Support.

The WRT complements broader JTWS efforts, including:

Fair Water Footprints (FWF):
Embedding water accountability and equity across global supply chains, with policy reforms underway in six countries and partnerships expanding through global platforms like the G20.

Resilient Water Accelerator (RWA):
Unlocking private finance for water resilience in high-impact markets, including Bangladesh's textile sector, with early-stage work in Morocco, Malawi, and South Africa.

Together, these initiatives demonstrate that an integrated, system-based, and country-driven approach is essential to delivering measurable progress on water security and climate resilience.

The Global Trends Report on Climate and Water Resilience provides strategic insights to guide the Water Resilience Tracker (WRT) and its partners. As climate impacts intensify, water remains the primary medium through which these challenges manifest. Despite growing global recognition of water's role in climate resilience, significant gaps persist in measurement, finance, and integration into global and national frameworks. This report identifies those gaps, highlights opportunities, and offers practical recommendations to align WRT efforts with global developments.

1 Introduction

1.1 Synopsis

This report serves as a strategic decision-support tool for Water Resilience decision makers. As global policy, finance, and thematic priorities evolve, this dynamic report enables us to remain responsive and informed. Key findings will ensure that our interventions are aligned with the latest global context - where relevant. The report will be updated annually to record relevant changes and program-level learning.

1.2 Outline of the Report

The 2025 Global Trends Report on Climate and Water Resilience provides a strategic overview of the evolving global landscape shaping water resilience and climate action, with a focus on informing Water Resilience practitioners and their partners.

The report begins by examining the institutional and policy context under the UNFCCC, including the latest developments from COPs, the Intergovernmental Panel on Climate Change (IPCC), the Global Stocktake, and the Global Goal on Adaptation (GGA), with particular attention to water's increasing but still fragmented integration into these processes. It explores the mechanisms countries use to formalise their climate commitments and track progress, including Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs), Biennial Transparency Reports (BTRs), and Long-Term Strategies (LTS), highlighting gaps and opportunities to embed systemic water resilience within these frameworks.

The report then examines the global finance landscape for water-climate resilience, providing an overview of major funding mechanisms, such as global climate funds, multilateral development banks, bilateral aid, and emerging private sector instruments. Persistent challenges in accessing and coordinating finance, particularly for vulnerable countries, are explored, along with recommendations to improve country readiness and unlock new finance streams for water resilience.

In the final section, the report focuses on WRT's programmatic themes and operational progress. It outlines country-level activities, including readiness assessments for climate finance, approaches to vulnerability assessment emphasising system-based, uncertainty-informed tools such as CRIDA and the development of practical dashboards and indicators to support integrated water governance. The report also provides updates on the WRT's alignment with global frameworks, the evolution of climate-water

resilience indicators, and the complementary efforts of the Fair Water Footprints (FWF) and Resilient Water Accelerator (RWA) initiatives under the Just Transitions for Water Security (JTWS) programme. Together, these insights provide a comprehensive picture of how the WRT and its partners can remain aligned with, and contribute to, global trends while addressing the persistent gaps that hinder the delivery of measurable, just, and climate-resilient water outcomes.

1.3 Reflections on COP30 Axes: Implications for Water Resilience

The upcoming COP30, hosted by Brazil, presents a critical opportunity to elevate water resilience within global climate governance. The Brazilian COP30 Presidency launched the Global Climate Action Agenda, Six Axes framing provides both direct and indirect pathways for advancing water-related action.

Two Official Axes with Direct Relevance to Water Resilience

Building Resilience for Cities, Infrastructure and Water

This axis places water explicitly at the centre of resilience-building efforts, recognising that climate-resilient water systems are fundamental to the protection of communities, economies, and infrastructure. It creates a clear political entry point to advocate for:

- Strengthening national water governance.
- Integrating systemic water resilience into NDCs, NAPs, BTRs, and LTSs.
- Mobilising climate finance for water infrastructure and ecosystem-based solutions.
- Advancing the role of the Water Resilience Tracker as a practical tool to support country-level implementation.

Stewarding Forests, Oceans and Biodiversity

This axis acknowledges the intrinsic link between healthy ecosystems and water resilience. Forests, wetlands, and coastal ecosystems play a vital role in regulating water cycles, mitigating floods and droughts, and safeguarding water quality. Water resilience cannot be achieved without protecting these natural systems, highlighting the importance of:

- Mainstreaming nature-based solutions within water-climate planning.
- Promoting integrated approaches across biodiversity, land, and water policies.
- Leveraging the Freshwater Challenge and other ecosystem restoration initiatives.

Additional Axes with Strong Water Relevance

While not explicitly framed around water, other COP30 Action Agenda axes have significant crossover with water resilience:

Transitioning Energy, Industry, and Transport

Transforming Agriculture and Food Systems

Fostering Human and Social Development

Unleashing Enablers and Accelerators, including on Finance, Technology and Capacity Building

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2 UNFCCC Institutional

The Water Resilience Tracker is influenced by the UNFCCC's evolving focus on water resilience, providing the overarching global policy landscape within which national efforts are shaped. The increasing recognition of water as the primary medium through which climate change impacts are experienced highlighted by the IPCC and reflected in recent COP outcomes serves as a core justification for the WRT's existence. Notably, COP30 Presidency Global Climate Action Agenda has placed water as one of its thematic axes, signalling a heightened global commitment to integrating water into climate discussions. This creates both momentum and responsibility for initiatives like the WRT to support countries in turning political recognition into measurable action.

While the UNFCCC processes, such as the Global Stocktake (GST) and the Global Goal on Adaptation (GGA), are progressively integrating water, they still lack the granular detail and systemic indicators crucial for comprehensive resilience tracking. This gap underscores the critical need for the WRT to develop more precise, actionable, and systemic metrics that reflect the cross-cutting nature of water challenges and solutions moving beyond what current international frameworks explicitly measure.

Consequently, the WRT operates within and leverages the UNFCCC architecture to drive more targeted and effective water resilience action. Through collaboration with countries on their Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs), the WRT helps embed robust water resilience considerations into national climate planning. It also seeks to bridge the gap identified in Biennial Transparency Reports (BTRs), where water-related adaptation details are often limited, by providing methodologies and support for more robust data collection, monitoring, and reporting.

In parallel, the WRT can directly contribute to the work of UNFCCC subsidiary bodies and initiatives, such as the Adaptation Academy, the Adaptation Committee, and the Sharm-El-Sheikh Adaptation Agenda, by offering practical tools, systemic insights, and capacity building. These contributions help ensure that global climate governance translates into tangible, trackable progress towards water-resilient societies.

With water positioned as a key thematic focus at COP30, there is an urgent need to not only support countries in advancing water-climate integration but also to proactively raise COP's awareness of ongoing initiatives like the WRT. Doing so will help align global policy processes with the practical realities of achieving water security under climate change, ensuring that political commitments are backed by the data, tools, and systems required to deliver just and measurable water resilience outcomes.

The following sections will examine in more detail the specific UNFCCC processes and developments most relevant to the WRT.

Attendees applause during the People's Plenary by the COP28 Coalition and different constituencies at the UN Climate Change Conference COP28 at Expo City Dubai on December 11, 2023, in Dubai, United Arab Emirates. (Photo by COP28 / Anthony Fleyhan)

2.1 Conference Of Parties (COPs)

(Established 1995, COP1 in Berlin)

The Conference of the Parties (COP), is the supreme decision-making body of the United Nations Framework Convention on Climate Change (UNFCCC). Its core principle is to ensure collective progress toward the Convention's ultimate goal, stabilizing greenhouse gas concentrations to avoid dangerous climate interference. COPs operate through consensus-based negotiations, where all Parties have equal voice regardless of size or wealth. Decisions are guided by the principles of equity, common but differentiated responsibilities, and respective capabilities. COPs provide political direction, adopt legal instruments (like the Paris Agreement), and oversee their implementation by reviewing national commitments, transparency mechanisms, and financial arrangements. COP outcomes shape international climate governance, influence national policy cycles, and launch new workstreams on adaptation, mitigation, loss and damage, and technology transfer.

COPs have increasingly recognized the critical role of water in climate action. This reflects an evolving recognition of water's importance, despite persistent inclusion gaps, indicating a growing, albeit incomplete, focus on water within COP discussions and outcomes. The growing scientific consensus is translating into political recognition of water as both a central medium of climate impact and a critical pathway for adaptation. The introduction of specific water targets and indicators signals a move from rhetorical acknowledgment to concrete, measurable policy integration.

Subsidiary bodies, such as the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI), play crucial roles in translating these high-level political signals into actionable technical and implementation frameworks, ensuring that future COPs will likely place even greater emphasis on water resilience, potentially leading to more dedicated funding mechanisms and stronger mandates for water-related reporting.

2.1.1 INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC)

The Intergovernmental Panel on Climate Change (IPCC) operates as a scientific body of the United Nations, established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP). Unlike a research institution, the IPCC does not conduct its own original research; instead, it synthesizes and assesses the vast body of peer-reviewed scientific literature on climate change. This process involves thousands of volunteer scientists from around the globe who serve across three Working Groups: Working Group I (Physical Science Basis), Working Group II (Impacts, Adaptation and Vulnerability), and Working Group III (Mitigation of Climate Change), plus a Task Force on National Greenhouse Gas Inventories. Their findings are compiled into comprehensive Assessment Reports, published roughly every 5-7 years, and Special Reports on specific topics, all undergoing rigorous multi-stage review by both experts and governments. These reports provide policymakers with objective, up-to-date scientific information to inform climate policy, with the latest, the Sixth Assessment Report (AR6), having been completed in March 2023, and the Seventh Assessment Cycle (AR7) commencing in July 2023 with reports expected to be finalized around late 2029.

Climate-water resilience is explicitly and comprehensively addressed within the IPCC's assessments, particularly within Working Group II reports, which focus on impacts, adaptation, and vulnerability. These reports detail how climate change is altering the global water cycle, leading to intensified extreme events like floods and droughts, shifts in precipitation patterns, glacier melt, and impacts on water quality and availability. The IPCC highlights that many climate impacts are experienced primarily through water, affecting sectors from agriculture and energy to human health and urban environments. Crucially, the reports assess various adaptation options related to water management, from traditional water infrastructure to nature-based solutions and integrated water resource management approaches. They also emphasize the interconnectedness of water resilience with other societal challenges, such as food security, poverty, and sustainable development, underscoring that effective climate-water resilience strategies are fundamental to achieving broader societal well-being and are critical for all other international approaches to climate action and sustainable development.

2.1.2 GLOBAL STOCKTAKE (GST)

(Established under Article 14 of the Paris Agreement in 2015; first GST concluded at COP28 in 2023)

The Global Stocktake (GST) is a cornerstone of the Paris Agreement's ambition cycle, designed to assess collective progress towards achieving global climate goals. Conducted every five years, the GST aligns with the updating of Nationally Determined Contributions (NDCs) by Parties. The first GST concluded at COP28 in 2023, providing a comprehensive assessment of progress on mitigation, adaptation, and means of implementation, based on the initial round of NDCs and other relevant information. The next GST process will be initiated in 2026 and is expected to conclude at COP31 in 2028.

The GST-1 outcome acknowledged the critical role of water systems in delivering on climate mitigation and adaptation ambitions, reflecting the growing recognition that climate change impacts are primarily experienced through the water cycle. However, the assessment also exposed persistent gaps in tracking and reporting on water resilience, with limited systemic indicators and insufficient depth in understanding progress on water-related adaptation and resilience efforts.

This underscores the need for initiatives such as the Water Resilience Tracker (WRT), which complements the GST by providing more granular, actionable, and systemic insights on water resilience trends. By supporting countries in

embedding robust water considerations into their NDCs, National Adaptation Plans (NAPs), and transparency reports, the WRT can help ensure that future Stocktakes, particularly GST-2, reflect more comprehensive and measurable progress on water resilience.

2.2 Global Goal on Adaptation (GGA)

(Mandated under the Paris Agreement in 2015; formalised through structured negotiations from COP26 in 2021; UAE–Belém work programme ongoing 2023–2025)

The Global Goal on Adaptation (GGA) is a core element of the Paris Agreement, aimed at enhancing global adaptive capacity, strengthening resilience, and reducing vulnerability to climate change. While the GGA's political mandate was embedded in the Agreement's text in 2015, it remained largely conceptual until formal negotiations began at COP26 in 2021 to operationalise the goal.

Since then, the GGA has been supported by a structured, multi-year work programme, most notably the UAE–Belém framework, which seeks to build a shared understanding of adaptation progress, develop methodologies, and establish globally relevant indicators. The GGA aims to place adaptation on equal footing with mitigation, improve coherence across national and global efforts, and provide a more transparent, evidence-based system for tracking progress.

Despite water's recognised centrality to climate impacts and adaptation strategies, climate-water resilience is not yet consistently or explicitly integrated into the GGA framework. While water-related themes such as ecosystem protection, disaster risk reduction, and health feature across the discussions, the systemic, cross-sectoral nature of water, along with its governance complexities, remain underdeveloped within GGA processes.

The UAE–Belém work programme, and in particular its global indicator development process, presents a key opportunity to address this gap by embedding water resilience more directly and systematically. Achieving this will require clearer articulation of water-specific risks, institutional barriers, and mechanisms for tracking progress. As it stands, water remains implicitly covered under broader adaptation themes but lacks the visibility, systemic focus, and structured attention needed to enable robust tracking, learning, and investment aligned with water system transformation.

2.2.1 GGA INDICATORS

(UAE–Belém Work Programme, initiated in 2023; latest developments as of June 2025)

The UAE–Belém work programme on indicators for the Global Goal on Adaptation (GGA) remains a central mechanism for operationalising adaptation progress tracking. Launched in 2023 with a two-year mandate, its objective is to establish a globally agreed set of up to 100 indicators, organised under seven thematic targets water, food, health, ecosystems, infrastructure, poverty & livelihoods, and cultural heritage—and four policy cycle targets covering risk and vulnerability assessment, adaptation planning, implementation, and monitoring, learning, and evaluation.

In June 2025, at the Bonn Climate Change Conference (SB62), Parties and experts made tangible progress on refining the indicator set. Following over 18 months of technical workshops, Parties reviewed an updated draft list of indicators, accompanied by a tiered classification system based on data availability and methodological maturity.

For the water theme, 33 candidate indicators remain under discussion, grouped into five key components:

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

An additional cross-cutting component on Enablers and Means of Implementation (MoI) is being integrated across all themes, although concrete water-specific MoI indicators remain underdeveloped.

While these indicators reflect growing recognition of water's centrality to adaptation, experts and Parties continue to express concern that the current indicator set lacks the capacity to capture the non-stationary, systemic, and governance-linked dimensions of water resilience. In particular, critical aspects such as transboundary water governance, integrated water resource management, and early warning systems for compound risks are either absent or insufficiently defined. Several indicators have been classified under a two-tier system:

Tier 1:
Indicators with existing global data and methodologies (primarily adapted from SDG, Sendai Framework, and WHO/UN-Water databases).

Tier 2:
Indicators where methodologies exist but global data coverage is limited or inconsistent.

Notably, 5 of the 33 water indicators have been identified as cross-cutting, relevant to other thematic targets, such as health, ecosystems, and infrastructure, reflecting water's systemic role.

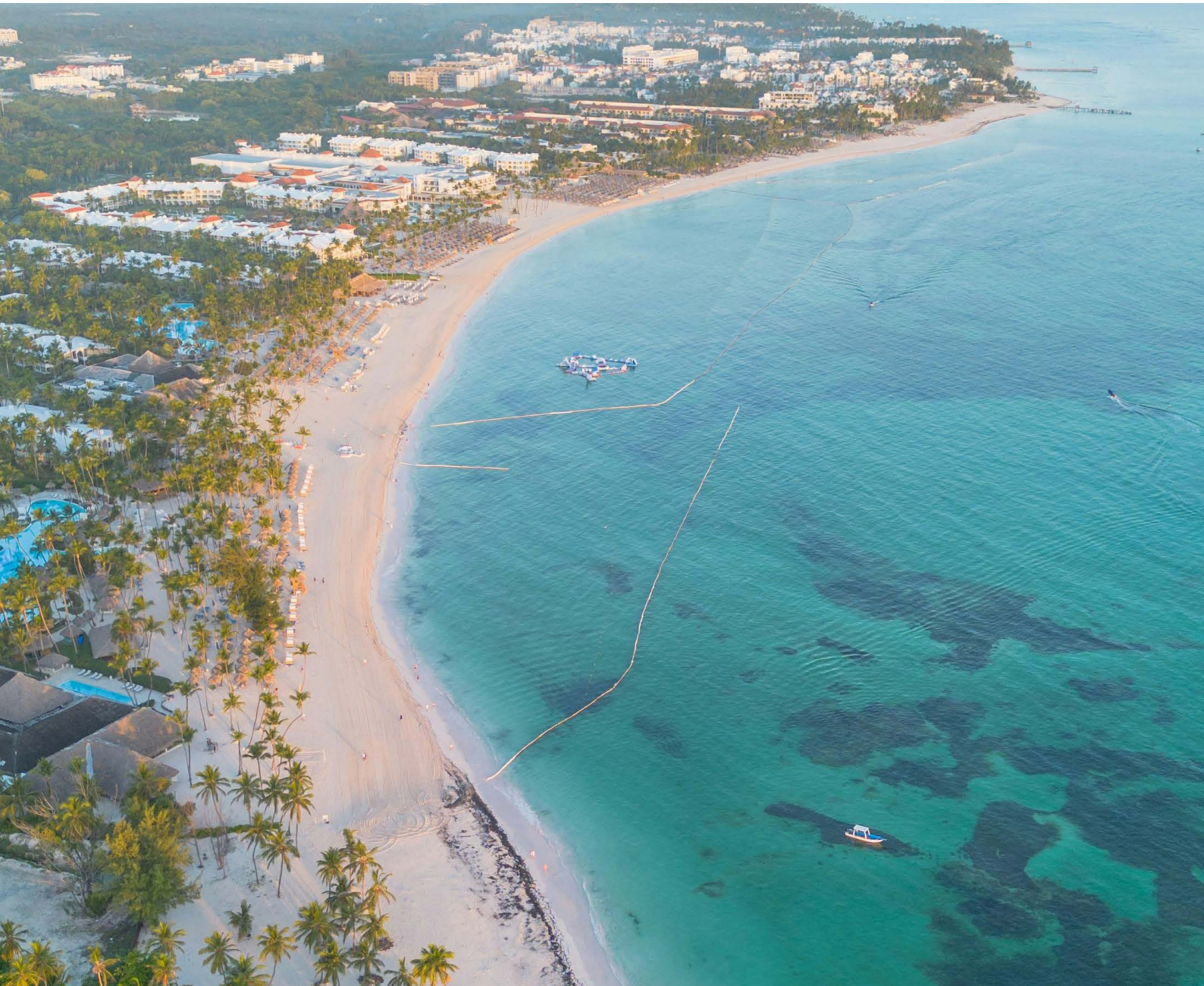
However, the June 2025 SB62 discussions highlighted persistent challenges:

- Fragmentation across indicator sets risks siloed reporting.
- The indicator set leans heavily on existing SDG and Sendai Framework metrics, which, while valuable, are not fully designed for climate-specific resilience tracking.
- Data gaps, particularly for least-developed countries and fragile states, pose significant implementation challenges.
- Means of Implementation (MoI) indicators, including finance, technology transfer, and capacity building for water, remain under-specified.

Given these limitations, it is increasingly evident that while the current GGA indicator framework provides a useful global baseline, it is unlikely to adequately capture the complex, dynamic, and systemic nature of water resilience essential for comprehensive monitoring and action.

This reinforces the need for the Water Resilience Tracker (WRT) to develop a complementary set of water-specific indicators. The WRT's tailored indicators will focus on capturing system-wide risks, governance linkages, feedback mechanisms, and non-linear dynamics critical to water resilience elements that remain beyond the current scope of the GGA indicator framework.

The final list of GGA indicators is expected to be negotiated and adopted at COP30 in November 2025, alongside ongoing technical work to refine methodologies, address gaps, and strengthen integration across themes.



2.3 Vehicles for Party Commitments and Reporting

2.3.1 NATIONALLY DETERMINED CONTRIBUTIONS (NDCs)

(Introduced in 2015 under the Paris Agreement)

Nationally Determined Contributions Registry | UNFCCC

NDCs are prepared on a five-year cycle, forming part of the Paris Agreement's "ratcheting mechanism," which requires countries to progressively enhance their climate commitments over time. Through these updates, nations are expected to raise ambition, align with sustainable development goals, and mobilise the necessary finance and technology to support implementation. The process for updating NDCs varies between countries; while many undertake comprehensive national dialogues and stakeholder consultations, others rely on more closed, government-led processes.

Each NDC is nationally determined, meaning countries set their own targets and actions based on their unique circumstances. However, the global expectation is clear: ambition must increase over time. For instance, countries like the United Kingdom have adopted ambitious, quantified emission reduction targets through 2035. Others, such as Brazil, present a range of potential targets, with higher ambition contingent on further policy development. Many developing countries include conditional targets, which depend on international financial and technical support, highlighting persistent disparities in capacity and resources.

NDCs remain central to how Parties communicate climate ambition, with revisions expected every five years. Parties define their own targets and actions, often with conditional elements tied to international support.

Ambition is meant to ramp up over time, though progress varies widely among countries.

Current Status (June 2025):

- The third NDC submission window ("NDC 3.0") closed in February 2025. Despite a target of widespread updates, only 13 out of 195 Parties have submitted revised NDCs extending ambitions through 2035.
- The UNFCCC has extended the deadline to September 2025 to ensure inclusion of these revisions in the upcoming NDC Synthesis Report ahead of COP30.
- Process note: While many countries use structured national dialogues, sectoral consultations, and stakeholder engagement to prepare updates, others evidently lack transparent or multi-stakeholder processes. This variability contributes to uneven ambition and quality across NDCs.

The delayed and limited uptake of new NDC submissions indicates that most Parties risk missing the 2025 milestone, potentially weakening global mitigation and adaptation momentum in the critical pre-COP30 period.

Failure to submit updated NDCs not only weakens the global climate response but also risks sidelining countries from shaping future international climate negotiations. While the Paris Agreement operates primarily on a "name and encourage" basis, the reputational and diplomatic implications of delayed or absent NDCs are significant, especially in the run-up to COP30.

How do countries go about updating NDCs?

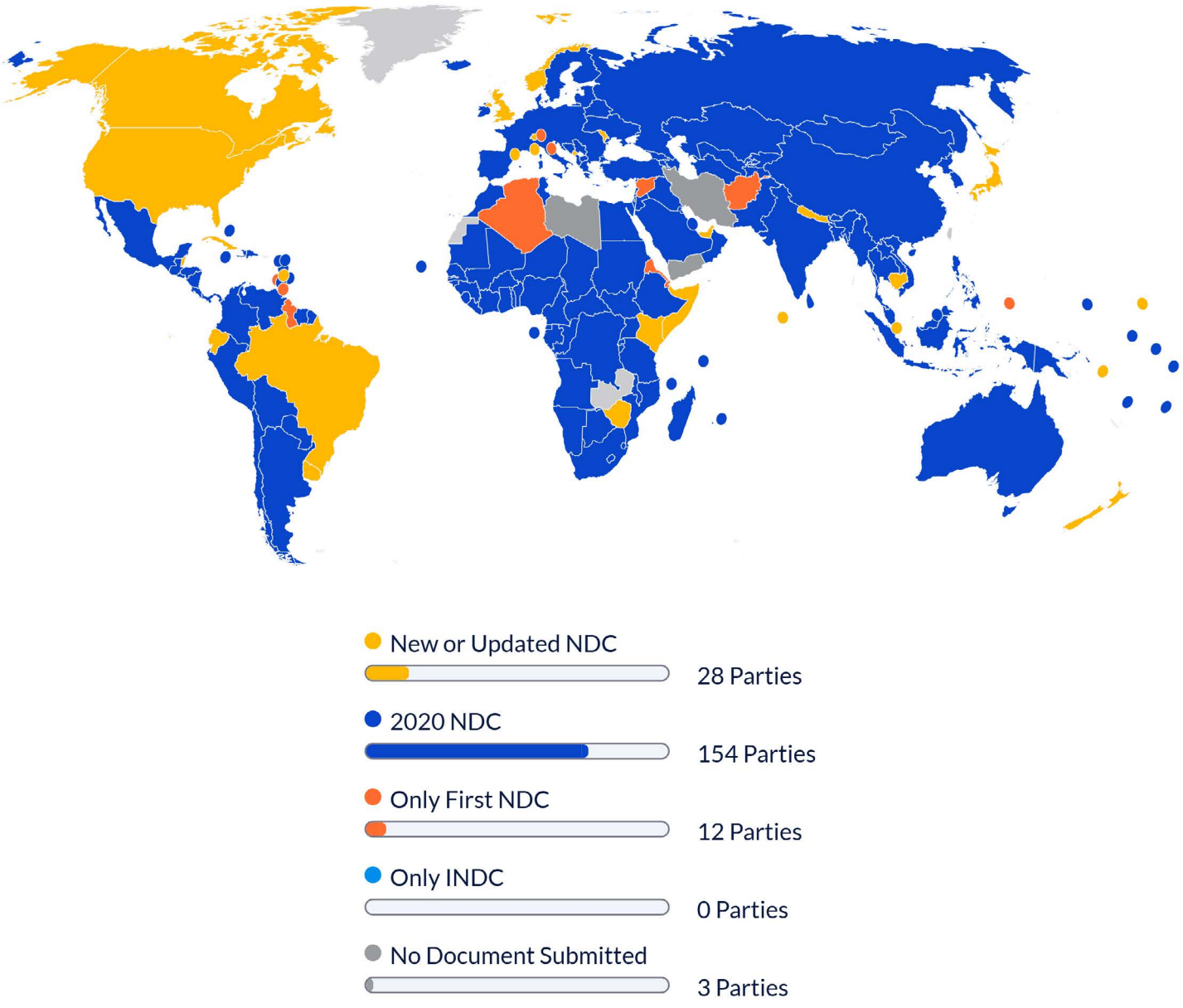
There is no standardised, globally mandated process for how countries update their NDCs. While the Paris Agreement encourages inclusive, transparent processes, the level of structure and stakeholder engagement varies significantly. Many countries convene broad-based national dialogues, involving government agencies, civil society, academia, and private sector actors to inform revisions. Others conduct more technical, ministry-led updates with limited public consultation. This variability affects both the ambition and quality of NDCs and highlights the persistent challenge of ensuring transparency and inclusiveness in national climate governance.

In practice, countries with strong institutional capacity and established stakeholder engagement mechanisms tend to produce more comprehensive, ambitious NDCs. By contrast, countries with limited resources or fragile governance structures often face barriers to both developing and updating their NDCs, contributing to delays and inconsistencies. As of June 2025, the majority of Parties have yet to submit their NDC 3.0 updates, leaving the process behind schedule and weakening the global momentum towards enhanced climate action ahead of COP30.

TABLE 1:
WRT Countries and their NDCs

COUNTRY	LATEST SUBMISSION	STATUS AND KEY NOTES
Egypt	Second updated NDC, June 2023	Egypt's revised NDC includes sector-specific mitigation targets, such as a reduction in oil and gas emissions, with ambitions set for 2030
Nepal	NDC 3.0 submitted 19 May 2025	Nepal submitted its NDC 3.0 in May, including both 2030 and enhanced 2035 targets (e.g., 26.8% GHG reduction commitment by 2035)
Malawi	Updated NDC July 2021	Malawi's enhanced NDC includes economy-wide adaptation and mitigation goals through 2040, sector coverage, and an NDC implementation plan
Morocco	Revised NDC June 2021; no 3.0 as of June 2025	Morocco's June 2021 NDC sets an 18.3% unconditional and 45.5% conditional emissions reduction by 2030, with strong integration of water and adaptation measures; however, NDC 3.0 (covering 2035) has not yet been submitted
Brazil	NDC 3.0 submitted 13 November 2024	Brazil's NDC 3.0 aims to reduce emissions by 59% - 67% by 2035, focusing on energy, forestry and agricultural sectors. New elements showing progress from previous NDC's, is the inclusion of its marine and coastal zones, and emphasis on adaptation needs. Concerns exist however due to lack of detailed and clear sectoral targets, but this may have been addressed in Brazil's Climate Plan - 2024, released separately from the NDC.

FIGURE 1:
Map showing the status of each country's NDC submission as of June 2025.
Source: climatewatchdata.org



2.3.2 NATIONAL ADAPTATION PLANS (NAPs)

(Established 2010 under Cancun Adaptation Framework)

Submitted NAPs from developing country Parties | NAP Central

NAPs enable Parties to formulate and implement plans as a means of identifying medium- and long-term adaptation needs and developing and implementing strategies and programmes to address those needs. It is a continuous, progressive, and iterative process that follows a country-driven, gender-sensitive, participatory, and fully transparent approach. The UNFCCC calls on parties to have their NAPs in place by 2025 and make progress to start implementing them by 2030. As of March 2025, 62 developing countries and 8 developed countries have submitted their NAPs at the UNFCCC.

Sectoral NAPs emerged where the more general goals in the NAP required some countries to apply a very specific, detailed way to the individual parts of a nation's economy and society that are most vulnerable to climate change. As of March 2025, 11 countries have submitted Sectoral NAPs. These sectoral NAPs cover different sectors depending on each country's vulnerable sectors, ranging from "cities" to "health" to "fisheries".

NAPs serve as a critical mechanism for building resilience and reducing vulnerability to climate change, particularly in developing countries, by providing roadmaps for adaptation actions and integrating adaptation into national development processes. Water is a central element in many NAPs, given that climate change impacts are predominantly water-related, leading to measures for water resource management, water supply, sanitation, and hygiene (WASH), and ecosystem-based adaptation that benefits water systems. While water is recognized, a truly integrated, cross-sectoral, and evidence-based approach to water resilience within NAPs is often lacking, potentially leading to suboptimal adaptation outcomes, maladaptation, and inefficient resource allocation. The challenge lies in translating these plans into concrete, funded, and implemented actions, especially at the sub-national level, and ensuring sufficient baseline data for tracking progress.

Climate-Water Resilience and National Adaptation Plans (NAPs)

National Adaptation Plans (NAPs) are critical instruments for advancing medium- to long-term climate resilience, and water is increasingly recognised as a central pillar within these plans. The 2025 UN-Water and UNEP-led dialogues have emphasised the importance of explicitly integrating climate-water resilience into NAPs, ensuring that water security, sustainable water management, and water-related disaster risk reduction are core components of national adaptation strategies.

Evidence shows that climate impacts are primarily experienced through water-related risks such as drought, floods, water scarcity, and degradation of water-dependent ecosystems making water governance central to achieving climate resilience. Despite this, many NAPs still treat water as a sectoral issue rather than a systemic resilience priority.

The Water Resilience Tracker (WRT) provides countries with the tools and frameworks to embed water resilience into both NDCs and NAPs, enabling more coherent, measurable, and impactful adaptation planning that addresses the systemic nature of water-related climate risks.

2.3.3 BIENNIAL TRANSPARENCY REPORTS (BTRs)

(Introduced in 2015 under the Paris Agreement, first submitted in 2024)

First Biennial Transparency Reports | UNFCCC

Biennial Transparency Reports (BTRs) are a key component of the Paris Agreement's Enhanced Transparency Framework, designed to track and communicate Parties' progress on climate action and support. BTRs are submitted every two years and provide information on:

- National greenhouse gas inventories (NIR)
- Progress towards achieving NDC targets
- Policies and measures for mitigation and adaptation
- Climate change impacts and adaptation actions
- Financial, technology development, and capacity-building support provided or received
- Support needs and areas for improvement

The first BTR submission deadline was December 31, 2024, with additional flexibility granted to Least Developed Countries (LDCs) and Small Island Developing States (SIDS).

As of March 2025, over 100 Parties have submitted their first BTRs to the UNFCCC, marking a critical step in enhancing transparency, fostering accountability, and informing the Global Stocktake process. BTR preparation is a multi-agency, multi-disciplinary effort, requiring robust national data systems, inter-institutional coordination, and, increasingly, broad stakeholder engagement.

Water Resilience and BTRs

Despite the recognised importance of water to climate adaptation, climate-water resilience is often underrepresented in BTRs. While Parties are required to report on adaptation actions, several systemic challenges limit the depth and quality of water-related reporting:

- Data Gaps: Many countries face difficulties collecting disaggregated, comprehensive data on water vulnerabilities, adaptation measures, and their effectiveness.
- Voluntary Adaptation Reporting: For many developing countries, especially LDCs and SIDS, detailed adaptation reporting remains voluntary, resulting in limited coverage of water-specific adaptation.
- Emphasis on Mitigation: The structure and focus of many BTRs prioritise mitigation over adaptation, contributing to gaps in tracking progress on water resilience.

As a result, BTRs often fall short of providing a comprehensive picture of how countries are building resilience to water-related climate shocks, limiting global understanding of progress towards climate-water resilience.

Among the WRT countries, only Malawi have not submitted its BTR, and it is reportedly in progress of being submitted soon.

Note: Deadlines for BTR submissions vary based on Party capacity and development status. Updated status to be confirmed ahead of COP30.

2.3.4 LONG-TERM STRATEGIES (LTS)

Long-Term Strategies (LTS) are key frameworks under the Paris Agreement, designed to guide countries toward low-carbon, climate-resilient development pathways by mid-century, typically by 2050. While Nationally Determined Contributions (NDCs) set shorter-term, five-year climate targets, LTS offer a broader, more strategic vision for aligning national development priorities with ambitious climate action.

LTS are not mandatory, but countries are invited to communicate them to the UNFCCC, providing transparency on how they intend to achieve net-zero emissions, promote a just transition,

and mobilise long-term policy and investment decisions consistent with global climate goals. By offering a structured roadmap, LTS play an important role in enhancing policy coherence, fostering investor confidence, and linking mitigation, adaptation, and sustainable development objectives.

Water Resilience in LTS

Water and climate resilience are increasingly recognised as integral components of effective long-term climate planning. As climate change impacts are often experienced most directly through water-related risks—including changing water availability, deteriorating water quality, and more frequent and severe floods and droughts—many countries are incorporating water considerations into their LTS.

Key water-related elements in emerging LTS include:

- Assessing long-term physical risks to water resources and dependent sectors.
- Developing adaptation interventions to enhance water security and availability.
- Promoting integrated water resource management (IWRM) across sectors and governance levels.
- Mobilising finance for water-related resilience measures, including nature-based solutions for flood control, improved irrigation efficiency, and climate-resilient water infrastructure.

By explicitly linking adaptation and mitigation planning within their LTS, countries can identify synergies, avoid maladaptation, and promote more coherent, resilient development pathways. Well-integrated LTS help ensure that long-term climate ambition translates into tangible improvements in water security and resilience, ultimately contributing to more climate-resilient societies and economies.

2.4 Other Relevant Activities Under the UNFCCC

2.4.1 CLIMATE ACTION SUPPORT AND TRANSPARENCY TRAINING (CASTT) - ADAPTATION ACADEMY

(Established 2023)

This program provides in-depth training courses for national climate focal points and ministerial representatives. Its core aim is to enhance participants' ability to conduct vulnerability and adaptation assessments, prepare and report information on national adaptation actions, including within their Nationally Determined Contributions (NDCs), and to navigate the reporting requirements of the Paris Agreement's enhanced transparency framework. The Academy focuses on a systematic, generational step-change in capacity to help countries meet their climate commitments.

The CASTT Adaptation Academy directly addresses climate-water resilience by integrating it as a central theme within its training modules. Recognizing water as the "teeth" of climate change due to its pivotal role in disasters like floods and droughts, the Academy emphasizes the strategic importance of water in both mitigation and adaptation efforts. It educates participants on conducting vulnerability and risk assessments specific to water resources, developing adaptation strategies that account for water scarcity or excess, and coordinating across ministries and governance levels for integrated water management.

2.4.2 NAIROBI WORK PROGRAMME (NWP)

(Established 2005)

The Nairobi Work Programme (NWP), established in 2005, functions as the UNFCCC's dedicated knowledge hub for adaptation. Its overarching goal is to facilitate and catalyze the development and dissemination of information and knowledge on adaptation, including practical tools and methodologies.

The NWP plays a vital role in synthesizing and sharing knowledge on adaptation, including water-related adaptation, across the global climate community. Its focus on practical tools and methods means it can contribute significantly to addressing water resilience challenges by disseminating best practices, fostering collaboration among stakeholders, and informing the development of more effective adaptation policies and measures.

2.4.3 PARIS COMMITTEE ON CAPACITY BUILDING (PCCB)

(Started in 2015, first meeting in 2017)

The PCCB carries out its mandate through several key functions. These include identifying capacity gaps and needs, both current and emerging, and recommending ways to address them. It also plays a vital role in promoting awareness-raising, knowledge and information sharing, and stakeholder engagement. The PCCB fosters collaboration among a wide range of actors at local, national, regional, and international levels, strengthening networks and partnerships to enhance synergies and promote the exchange of knowledge and experiences.

The Paris Committee on Capacity Building (PCCB) addresses climate water resilience primarily by strengthening the ability of developing countries to understand, plan for, and manage the impacts of climate change on their water resources. While not directly involved in on-the-ground water infrastructure projects, the PCCB focuses on enhancing the capacities that enable such initiatives.

2.4.4 ADAPTATION COMMITTEE (AC)

(Established in 2010 under the Cancun Adaptation Framework)

The Adaptation Committee mandate is to promote the implementation of enhanced action on adaptation in a coherent and holistic manner under the Convention. The Committee plays a crucial role in providing technical support and guidance to Parties on adaptation matters, including those related to water. Its work involves reviewing adaptation needs, synthesizing information on adaptation practices, and providing recommendations to the COP.

This function is critical for ensuring that water resilience considerations are effectively integrated into national adaptation planning and implementation processes, and that countries have access to the necessary knowledge and support to build water-secure futures in the face of climate change.

2.4.5 MARRAKECH PARTNERSHIP FOR GLOBAL CLIMATE ACTION / CLIMATE CHAMPIONS TEAM (CCT)

(Established 2016)

The Climate Champions Team (CCT), operating under the Marrakech Partnership for Global Climate Action, was established in 2016 to catalyse ambitious climate action beyond national governments. The Partnership engages non-Party stakeholders, including cities, regions, businesses, investors, and civil society, with the aim of showcasing solutions, facilitating collaboration, and driving action that complements national commitments under the Paris Agreement.

The Climate Champions serve as facilitators and conveners, connecting diverse actors and highlighting innovative, high-impact initiatives that contribute to achieving global climate goals.

Water Resilience and the Marrakech Partnership

The Marrakech Partnership provides a unique platform to advance climate-water resilience by mobilising non-state actors to develop and implement water-related climate solutions. Cities, businesses, financial institutions, and other non-state stakeholders play a critical role in addressing water challenges through investments, infrastructure innovation, governance improvements, and nature-based solutions.

The Partnership contributes to water resilience by:

- Showcasing successful, scalable water-related climate action from cities, businesses, and other non-state actors.
- Facilitating collaboration and knowledge exchange on water management and climate adaptation.
- Mobilising private sector investment and innovation for water resilience.
- Supporting the integration of water resilience into broader mitigation and adaptation initiatives.

Water for Climate Pavilion

The Water for Climate Pavilion, a recurring feature at recent COPs, exemplifies how the Marrakech Partnership and Climate Champions are elevating the profile of water within the global climate agenda. The Pavilion provides a dedicated platform for non-state actors, governments, technical experts, and financial institutions to share knowledge, showcase water-related climate action, and build momentum for systemic, cross-sectoral solutions. Through high-level dialogues, technical sessions, and knowledge products, the Pavilion amplifies successful approaches to water resilience and fosters collaboration that extends beyond COP.

Importantly, all core Water Resilience Tracker (WRT) partners are active participants within the Pavilion, providing a unique opportunity to collectively shape global narratives and influence

decision-making. The Pavilion serves not only as a knowledge-sharing space but as a strategic vehicle to advocate for greater political recognition, financing, and integration of water resilience within formal COP processes and global climate frameworks.

As COP30 approaches with water formally embedded in two of the Presidency's Six Axes, there is a clear and time-sensitive opportunity for WRT partners, through their role in the Pavilion, to advocate for stronger commitments, more systemic approaches, and increased global action on water resilience. Targeted engagement through the Pavilion can help ensure that water security and resilience move from the margins to the centre of climate negotiations and implementation efforts.

High level champions, Ambassador Laurence Tubiana and Minister-Delegate Hakima el Haite held a press conference to explain in detail their plans for climate action during COP 22 and beyond. (Credit: UNFCCC)

2.5 Links to Global Processes

Climate water resilience is a cross-cutting theme addressed, albeit with varying degrees of emphasis and directness, across several key international agreements and frameworks.

The Convention on Biological Diversity (CBD)

The CBD intrinsically links water to ecosystem health and biodiversity, recognizing that resilient ecosystems, particularly wetlands and freshwater habitats, are vital natural infrastructure for managing water-related climate impacts like floods and droughts. By focusing on the conservation and sustainable use of biodiversity, the CBD indirectly contributes to water resilience by promoting nature-based solutions and safeguarding the ecological services that underpin healthy water cycles.

The United Nations Convention to Combat Desertification (UNCCD)

With a primary focus on avoiding, reducing, and reversing land degradation, it recognizes the vital role of sustainable land management in improving water availability and preventing desertification. It has a focus on enhancing drought preparedness and reducing vulnerability and risk, often exacerbated by climate change.

The broader UN Water Agenda

Including the 2023 UN Water Conference and the upcoming 2026 conference, the agenda explicitly champions water resilience as a central pillar of sustainable development. The 2023 Water Conference aimed to generate transformative commitments to address the global water crisis, emphasizing the interconnectedness of water with climate change, disaster risk reduction, and sustainable development goals. Discussions at these conferences underscore the need for integrated water resource management, early warning systems for water-related hazards, and increased investment in water infrastructure that can withstand climate shocks.

The Sustainable Development Goals (SDGs)

Particularly SDG 6 (Clean Water and Sanitation) and SDG 13 (Climate Action), offer a crucial overarching framework for advancing climate-water resilience, interlinked with the other international approaches. SDG 6 directly addresses the availability and sustainable management of water and sanitation for all, encompassing targets on safe drinking water, sanitation and hygiene, water quality, water-use efficiency, integrated water resource management (IWRM), and the protection and restoration of water-related ecosystems. SDG 13, meanwhile, calls for urgent action to combat climate change and its impacts, including strengthening resilience and adaptive capacity to climate-related hazards, many of which are water-borne. The SDGs inherently promote an integrated approach, recognizing that progress on one goal often depends on progress on others.

The Sendai Framework for Disaster Risk Reduction (DRR)

While not exclusively focused on water, strongly emphasizes reducing disaster risk, a significant portion of which is water-related (floods, droughts, storms). It calls for strengthening early warning systems, promoting risk-informed development, and building resilient infrastructure, all of which directly contribute to climate water resilience.

The RAMSAR Convention on Wetlands

Dedicated to the conservation and sustainable use of wetlands, it plays a pivotal role in enhancing climate water resilience by safeguarding ecosystems that regulate hydrological cycles and buffer climate impact, protecting and restoring ecosystems that provide critical services such as water purification, groundwater recharge, and flood mitigation, which are increasingly vital in enhancing adaptive capacity to face of climate variability and extreme weather events.

The Freshwater Challenge

Launched in mid-2025, the Freshwater Challenge encourages national governments to set quantifiable targets for freshwater ecosystem restoration and conservation financially tracked toward delivering these commitments by 2025 and 2030.

2.5.1 CROSS-CONVENTION COHERENCE

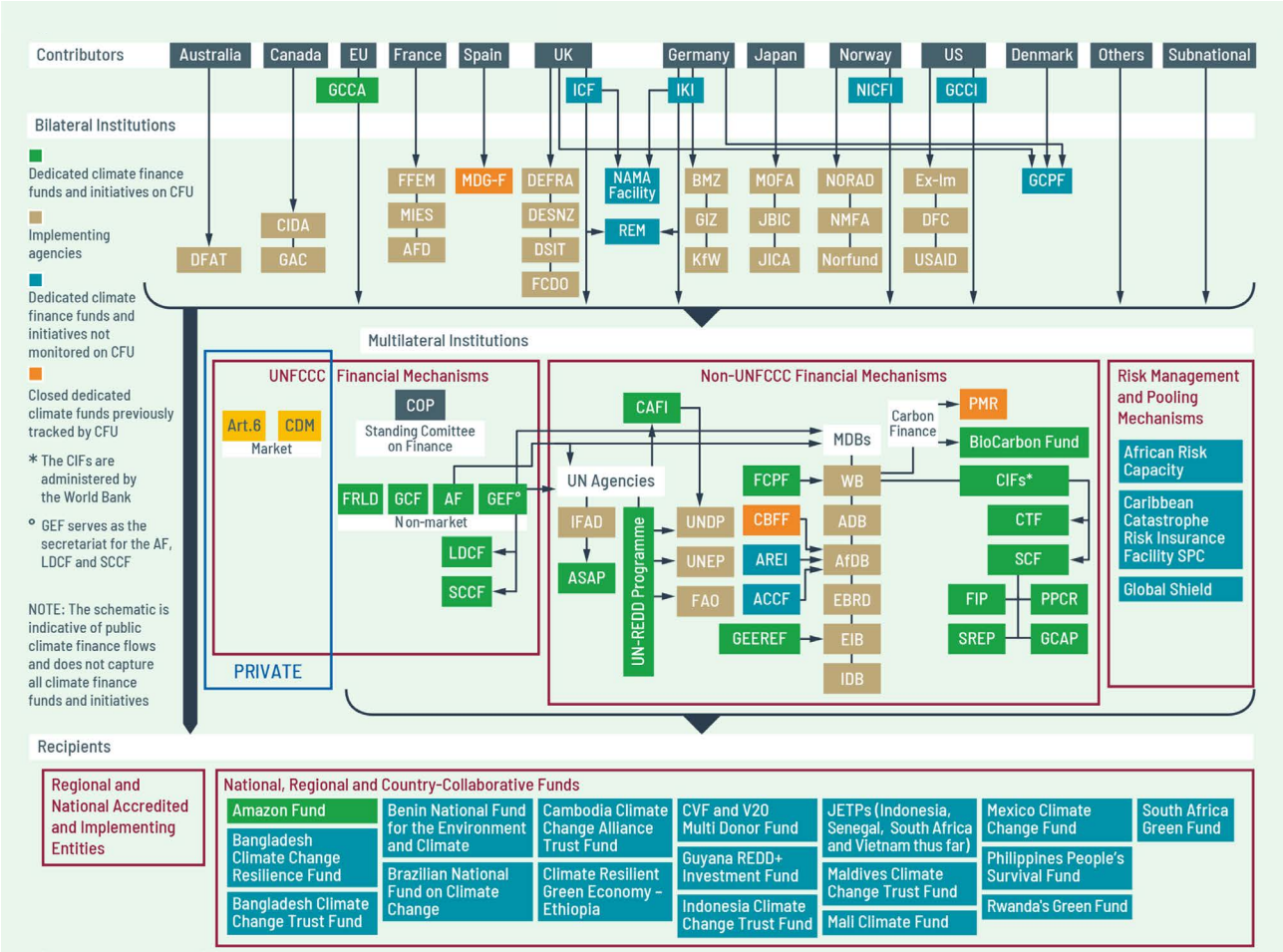
Despite these efforts, significant gaps, inconsistencies, and overlaps exist. One major gap is the persistent lack of integrated governance across sectors and scales; water is often managed in silos, disconnected from climate, biodiversity, and land-use planning. This fragmentation hinders comprehensive and effective resilience building. There are also inconsistencies in how "resilience" is defined and measured across different frameworks, leading to challenges in tracking progress and ensuring synergistic actions. Furthermore, while many agreements acknowledge the importance of water, there can be overlaps in mandates without clear mechanisms for coordination, potentially leading to duplication of efforts or, conversely, leaving critical areas unaddressed due to a perceived lack of singular ownership. The sheer number of initiatives, while well-intentioned, can also lead to a diffusion of resources and expertise, making it challenging to achieve truly impactful and widespread climate water resilience outcomes.

Photo: Tanmoy Bhaduri/IWMI

3 Finance

Financing the water sector is critical to ensuring water security, resilience, and sustainable management. However, despite the clear necessity, a significant and persistent financing gap remains across the diverse spectrum of water-related investments. These investments extend beyond capital for initial infrastructure development to include the often-overlooked costs of maintenance, governance, management, and capacity development, all of which are essential to delivering long-term, resilient water services.

FIGURE 1:
Global Finance Architecture (© ODI Global and hbs 2025. CC BY-NC 4.0)



3.1 Water-Climate Financial Trends Globally

Historically, the water sector has relied predominantly on public funding, channelled through government budgets, state-owned enterprises, and concessional financing from development partners via Official Development Assistance (ODA). In some countries, private sector spending has also contributed, although this remains relatively limited.

A key barrier to greater private sector engagement is the institutional structure of the water sector itself. Many water service providers operate as government departments or public utilities, limiting their operational autonomy and financial flexibility. Even when water supply and sanitation providers are structured as corporate entities, they rarely access commercial loans due to low creditworthiness, weak financial incentives, and fragmented regulatory environments (Kolker et al., 2016).

In response, Public–Private Partnerships (PPPs) have been promoted as a potential pathway to mobilise private investment and expertise.

While the principle is sound, progress in implementing PPPs in the water sector remains limited. This is largely due to:

- Unstable revenue streams and affordability constraints, making water projects less attractive to private investors.
- Regulatory uncertainty and institutional fragmentation, complicating project development.
- Capacity gaps within public institutions to structure, negotiate, and manage PPPs effectively.
- Social and political sensitivity around water services, which often leads to public opposition to private sector involvement, especially where affordability or equity concerns are prominent.

Overcoming these barriers requires coordinated efforts to strengthen enabling environments, improve the financial sustainability of water services, and build institutional capacity to develop and manage PPP arrangements.

3.2.1 GLOBAL CLIMATE FUNDS

Global climate funds are dedicated financial mechanisms designed to provide targeted funding for climate change mitigation, adaptation, and addressing climate impacts. These funds are part of the multilateral climate finance initiatives under the United Nations Framework Convention on Climate Change (UNFCCC). The primary source of funding comes from public finance from developed countries as per their commitments under the UNFCCC, and is supplemented by voluntary contributions from other parties, including private actors. The financial resources are channelled to developing countries through the operating entities of the UNFCCC financial mechanism, including, the Global Environment Facility (GEF), the Green Climate Fund (GCF), the Adaptation Fund, the Least Developed Countries Fund (LCDF), and the Special Climate Change Fund (SCCF).

Green Climate Fund (GCF)

What is it?

The Green Climate Fund (GCF), established in 2010, is a primary operating entity of the UNFCCC's financial mechanism. It is the largest global climate fund, designed to support developing countries in pursuing climate change mitigation (CCM), adaptation (CCA), technology transfer, and capacity building. The GCF plays a critical role in enabling countries to implement their Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs).

Who do they target?

This fund is designed to support developing countries, with a particular emphasis on those that are most vulnerable to the impacts of climate change.

Specifically, the GCF prioritises:

- Least Developed Countries (LDCs) – countries with the lowest levels of income and institutional capacity.
- Small Island Developing States (SIDS) – island nations particularly at risk from sea-level rise and extreme weather.
- Countries especially vulnerable to climate change impacts – for example, those facing frequent droughts, floods, coastal erosion, or other climate-related hazards.

The fund aims to ensure that those with the greatest needs and the fewest resources receive targeted support to build resilience and pursue low-carbon development.

How do you apply?

Access to GCF funding is managed through Accredited Entities, which act as intermediaries to design and implement projects.

These Accredited Entities (AEs) can be:

- National Implementing Entities (NIEs) – Government agencies or national organisations based in the recipient country.
- Regional Implementing Entities (RIEs) – Organisations working across several countries in a region.
- Multilateral Implementing Entities (MIEs) – Large international organisations, such as the UNDP or World Bank.

The typical application process includes:

1. Submission of a short concept note outlining the proposed project.
2. Development of a full funding proposal.
3. Technical review by the GCF Secretariat and an independent expert panel.
4. Final decision by the GCF Board.

Skills and typical stakeholders involved:

Successful applications require a wide range of technical, financial, and stakeholder engagement expertise.

This often includes:

- Technical experts and engineers – e.g., water infrastructure, climate-resilient design.
- Climate policy specialists – ensuring projects align with national climate strategies like NDCs and NAPs.
- Environmental and social safeguards experts – to avoid negative impacts and protect vulnerable groups.
- Economists and financial experts – to design financially viable projects.
- Legal and procurement specialists – for contracts and governance.
- Stakeholder engagement teams – ensuring community involvement, especially on gender and social inclusion.

Priority spending buckets:

- Climate change mitigation: Renewable energy, energy efficiency, low-carbon transport.
- Climate change adaptation: Resilient infrastructure, water security, agriculture.
- Technology transfer and capacity building.
- Specific windows for private sector investment and readiness support.

GCF priorities are informed by COP decisions, Board guidance, and replenishment cycles. The Fund has committed to a balanced allocation between mitigation and adaptation, with enhanced focus on LDCs, SIDS, and Africa.

Review process:

All proposals go through a structured, multi-stage review:

- Technical assessments and safeguards checks.
- Evaluation by the Independent Technical Advisory Panel.
- Final decision by the GCF Board.

Projects are assessed for their transformational impact, sustainability, alignment with national climate strategies, and compliance with environmental, social, and gender policies throughout the project lifecycle.

Global Environmental Facility (GEF)

What is it?

Established in 1991, the Global Environment Facility (GEF) is a key financial mechanism for several multilateral environmental agreements, including the UNFCCC, Convention on Biological Diversity (CBD), Stockholm Convention, and UNCCD. It provides grant funding to support country-driven projects addressing climate change, biodiversity loss, land degradation, and other environmental challenges.

The GEF also administers the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF), which specifically support climate adaptation in vulnerable countries.

Who do they target?

The GEF provides financial support to developing countries, with particular emphasis on countries most vulnerable to environmental and climate risks.

Eligible recipients include:

- Developing countries and economies in transition.
- Least Developed Countries (LDCs), with dedicated support through the LDCF.
- Small Island Developing States (SIDS), especially vulnerable to sea-level rise and ecosystem degradation.
- Countries implementing National Adaptation Plans (NAPs) or facing urgent environmental challenges like land degradation, biodiversity loss, or water scarcity.

The GEF is designed to help countries align national development with global environmental goals, while addressing their most pressing climate and nature-related risks.

How do you apply?

Access to GEF funds is through authorised implementing agencies that help countries design and submit projects.

These GEF Agencies include:

- United Nations agencies (e.g., UNDP, UNEP).
- Multilateral development banks (e.g., World Bank, AfDB).
- Regional development banks or technical organisations.

The typical process involves:

1. Country identifies priority projects aligned with national plans and GEF guidelines.
2. Proposal is developed with support from a GEF Agency.
3. Proposal is reviewed and submitted to the GEF Secretariat.
4. Following approval, funding is disbursed to the implementing agency.

The LDCF provides targeted adaptation funding for LDCs, with up to USD 20 million per country available to support the development and implementation of National Adaptation Plans (NAPs).

Skills and typical stakeholders involved:

GEF projects require a combination of technical, environmental, policy, and community engagement expertise.

This typically includes:

- Climate change and environmental specialists, including water management experts.
- Policy experts, ensuring alignment with NAPs, NDCs, and biodiversity commitments.
- Biodiversity, land, and water management practitioners.

- Project design, monitoring, and evaluation professionals.
- Community engagement teams, especially for projects involving ecosystem protection or local adaptation actions.

Priority spending buckets:

GEF funds are directed towards projects that address global environmental challenges, with growing emphasis on integrated, cross-sectoral solutions:

- Climate change mitigation, including renewable energy and low-carbon development.
- Adaptation and resilience, particularly through the LDCF and SCCF.
- Biodiversity conservation, with a focus on critical ecosystems.
- Land degradation and desertification, including sustainable land management.
- International waters and freshwater ecosystem restoration.

Under its current funding period (GEF-8, 2022–2026), the GEF has shifted emphasis towards integrated solutions that address the links between food, land, water, and health systems.

Review Process:

All GEF projects undergo a structured, multi-stage review process:

- Initial te`chnical screening by the GEF Secretariat.
- Review by the independent Scientific and Technical Advisory Panel (STAP).
- Final approval by the GEF Council, composed of donor and recipient country representatives.
- Mandatory compliance with environmental, social, and gender safeguards.
- Ongoing monitoring, evaluation, and reporting throughout project implementation.

Adaptation Fund (AF)

What is it?

The Adaptation Fund (AF) was established in 2001 under the Kyoto Protocol to provide targeted funding for climate adaptation projects in developing countries. Since 2019, it has also served the Paris Agreement, continuing to finance concrete, country-led adaptation efforts. The Fund focuses on delivering real, measurable benefits to communities that are highly vulnerable to the impacts of climate change, such as droughts, floods, sea-level rise, and other hazards.

A distinctive feature of the Adaptation Fund is its Direct Access modality, which allows accredited national and regional organisations to apply for and manage funds directly. This approach builds country ownership, strengthens institutional capacity, and reduces reliance on international intermediaries.

Who do they target?

The Adaptation Fund is designed to support developing countries, with a particular emphasis on those most vulnerable to climate change impacts.

Eligible recipients include:

- All developing countries that are Parties to the Kyoto Protocol and/or Paris Agreement.
- Least Developed Countries (LDCs).
- Small Island Developing States (SIDS).
- Other countries classified as particularly vulnerable to climate-related hazards, including those experiencing water scarcity, extreme weather events, or ecosystem degradation.

How do you apply?

Access to the Fund is managed through accredited implementing entities that support countries in designing and submitting projects.

There are three types of Accredited Entities:

- National Implementing Entities (NIEs) – National government agencies or organisations within the recipient country.
- Regional Implementing Entities (RIEs) – Organisations working across multiple countries in a region.
- Multilateral Implementing Entities (MIEs) – Large international organisations, such as UNDP, UNEP, or the World Bank.

The application process typically involves:

1. Country nominates an accredited entity.
2. The entity develops a project proposal aligned with national adaptation priorities, including NAPs or other climate strategies.
3. The proposal is submitted to the Adaptation Fund for technical and Board review.

Project size: Countries can access up to USD 10 million per project, with additional funding available for project preparation, readiness support, and small-scale adaptation initiatives.

Skills and typical stakeholders involved:

Effective applications require a broad range of technical, policy, and community expertise.

This includes:

- Technical experts and engineers, focusing on project design, technical feasibility, and infrastructure development.
- Climate policy specialists, ensuring alignment with national adaptation plans and NDCs.
- Environmental and social safeguards experts, to protect people and ecosystems.
- Finance and procurement experts, ensuring projects are financially sound and well-managed.

- Stakeholder engagement teams, with a focus on empowering communities, women, and other marginalised groups through locally-led adaptation.

Priority spending buckets:

The Adaptation Fund finances projects that address practical adaptation needs, with funding priorities set by countries themselves:

- Water resource management, including climate-resilient water infrastructure.
- Disaster risk reduction, such as flood control and early warning systems.
- Agriculture and food security, including climate-smart agriculture practices.
- Ecosystem-based adaptation, protecting natural systems that provide climate resilience.
- Climate-resilient infrastructure, such as roads, buildings, and water systems designed to withstand climate impacts.

These priorities are based on country needs and remain consistent between replenishment periods.

Review process:

Project proposals go through a structured review process, with two submission windows per year:

- Technical review by the Adaptation Fund Secretariat.
- Independent expert assessment, including environmental, social, and gender safeguards.
- Final approval decision by the Adaptation Fund Board, composed of representatives from developed and developing countries.

Projects must demonstrate strong community benefits, robust safeguards, and alignment with national climate adaptation priorities.

Fund for Responding to Loss and Damage (FLRD)

What is it?

The Fund for Responding to Loss and Damage (FRLD), also known as the Loss and Damage Fund, was established at COP27 in 2022 and became operational at COP28 in 2023. It provides financial support to developing countries facing unavoidable losses and damages caused by climate change, especially where impacts go beyond what can be prevented through adaptation.

The Fund covers both:

- Sudden-onset events, such as extreme floods, tropical storms, or heatwaves.
- Slow-onset processes, including sea-level rise, desertification, coastal erosion, and glacier melt.

The FRLD represents a landmark step in global climate finance, recognising the need for direct support to countries and communities already experiencing irreversible climate-related harm.

Who do they target?

The Fund targets developing countries, with a strong emphasis on those most exposed to severe climate risks and least able to cope.

Specifically:

- Least Developed Countries (LDCs).
- Small Island Developing States (SIDS).
- Other developing countries facing high vulnerability to climate impacts, such as fragile ecosystems, low-lying coastal areas, or high exposure to extreme weather events.

The Fund prioritises support for communities disproportionately affected by loss and damage, including vulnerable groups such as women, Indigenous Peoples, and those living in poverty.

How do you apply?

As of 2025, the operational details are still being finalised, but emerging guidance indicates the process will build on lessons from other UN climate funds.

Key aspects expected include:

- National governments will submit project proposals through Accredited Entities, likely including:
  - National Implementing Entities (NIEs) – Government or national-level organisations.
  - Multilateral Implementing Entities (MIEs) – International organisations such as UNDP or the World Bank.
- A Direct Access modality for countries, similar to the Adaptation Fund, is expected to increase national ownership and simplify access.
- Early-stage technical assistance is being made available to help countries build project pipelines and develop strong proposals.

Skills and typical stakeholders involved:

Designing and implementing FRLD projects requires a diverse mix of technical, financial, and social expertise.

This includes:

- Disaster risk management experts, for risk reduction and response planning.
- Water resource specialists, with a focus on flood, drought, and coastal risks.
- Engineers and infrastructure experts, for rehabilitation and resilient reconstruction.
- Finance, legal, and procurement teams, ensuring project feasibility and governance.
- Social protection and humanitarian actors, to ensure the most vulnerable communities are effectively supported.

Priority spending buckets:

The Fund is expected to cover a broad range of interventions that respond to loss and damage and help build resilience for the future:

- Immediate disaster response and recovery, including emergency relief.
- Infrastructure rehabilitation and reconstruction, ensuring rebuilt systems are climate-resilient.
- Livelihood restoration, such as support for farmers, fishers, and small businesses.
- Early warning systems and risk reduction, including community preparedness and hazard monitoring.
- Water-related interventions, such as drought mitigation, flood response, and coastal protection.

The Fund's priorities will evolve based on the latest scientific assessments, country needs, and COP decisions, with periodic replenishments shaping the level of available resources.

Review Process:

Project proposals will undergo a structured but streamlined review process to enable timely support:

- A Governing Board, with balanced representation from developed and developing countries, oversees final approvals.
- Independent technical panels will review proposals for feasibility, environmental and social safeguards, and alignment with Fund objectives.
- An emphasis is placed on rapid, needs-based financing, with simplified procedures for urgent interventions, such as responding to extreme weather events.

3.2.2 MULTILATERAL DEVELOPMENT BANKS (MDBS)

MDBs are international financial institutions that provide loans, grants, and technical assistance to support development, poverty reduction, and climate action, including water resilience. They play a critical role in financing large-scale infrastructure, policy reform, and capacity building, often co-financing with global climate funds such as the GCF or GEF.

MDBs target developing countries and emerging economies, with specific funds, programs, or lending windows often designed for LDCs, SIDS, or countries highly vulnerable to climate change.

World Bank

MULTILATERAL DEVELOPMENT BANKS

What is it?

The World Bank Group is one of the world's largest providers of development finance for low- and middle-income countries. It consists of several institutions, with the two key ones for climate and water resilience being:

- The International Bank for Reconstruction and Development (IBRD) – which provides loans and technical assistance to middle-income and creditworthy low-income countries.
- The International Development Association (IDA) – which offers concessional loans and grants to the world's poorest countries.

The World Bank plays a central role in financing large-scale climate action, including investments in water resources, resilient infrastructure, disaster risk reduction, and integrated development approaches that address climate, poverty, and sustainability together.

Who do they target?

The World Bank provides financial support to countries based on income level, vulnerability, and development priorities.

Primary target groups include:

- Low- and middle-income countries, with different financing terms based on economic status.
- Fragile, conflict-affected, and disaster-prone states, where climate vulnerability is often highest.
- Least Developed Countries (LDCs) and countries implementing National Adaptation Plans (NAPs) or other major climate resilience initiatives.

The Bank also works extensively with regional bodies, cities, and sub-national governments to support climate and water resilience projects.

How do you apply?

Access to World Bank finance is led by national governments, usually through ministries of finance, planning, or infrastructure.

The typical process includes:

1. Country Partnership Framework (CPF) – Countries develop a strategic plan with the World Bank, identifying priority sectors, including climate and water.
2. Specific projects are designed with World Bank teams, in consultation with relevant ministries, technical experts, and stakeholders.

3. A Project Appraisal Document (PAD) is prepared, outlining technical details, risks, financing, and implementation arrangements.
4. Projects are reviewed and approved by the World Bank Board of Executive Directors.

For LDCs and IDA-eligible countries, concessional loans or grants are available. For middle-income countries, financing terms depend on project type and country status.

Skills and typical stakeholders involved:

World Bank projects require broad technical, financial, and social expertise across government, development partners, and communities.

Common roles include:

- Engineers and infrastructure specialists, for water, transport, and urban resilience design.
- Water resource managers, to ensure integrated water governance and climate-smart water management.
- Environmental and social safeguards experts, to prevent negative impacts and protect vulnerable groups.
- Financial and legal advisors, to ensure sound financial design and compliance.
- Community engagement teams, to promote locally appropriate solutions and ensure inclusion.
- Economists and policy specialists, to align projects with national climate and development priorities.

Priority spending buckets:

The World Bank funds a wide range of climate-related and water resilience initiatives, often integrated with broader development goals:

- Water supply and sanitation, including access to safe, affordable water.
- Water resources management and governance, with a focus on integrated and climate-resilient approaches.
- Climate-resilient infrastructure, such as transport, energy, and urban systems.
- Disaster risk reduction, including flood management, early warning systems, and preparedness.
- Agriculture, health, and education, linked to building community-level climate resilience.
- Nature-based solutions, including ecosystem restoration, watershed protection, and coastal resilience.

How often do priorities change?

World Bank priorities evolve based on global development trends, scientific assessments, and internal climate targets. For example:

- A 35% climate finance target by 2025 shapes funding priorities towards low-carbon and climate-resilient projects.
- Global shocks, such as the COVID-19 pandemic or food security crises, influence the focus on integrated, sustainable recovery.
- Increasing emphasis on green growth, nature-based solutions, and social inclusion informs project design.

Review process

All World Bank-financed projects undergo a comprehensive, multi-stage review process to ensure technical quality, safeguards, and alignment with development goals:

- Internal technical review, covering project design, feasibility, and financial structure.
- Environmental, social, and gender safeguards assessments, to identify and manage risks.
- Preparation of a Project Appraisal Document (PAD).
- Board approval by the World Bank's Executive Directors.
- Ongoing implementation, monitoring, and independent evaluation to track project performance and outcomes.

Regional Banks

What are they?

Regional Development Banks (RDBs) play a vital role in financing infrastructure, climate action, and sustainable development across specific regions of the world. They are multilateral financial institutions, established by groups of countries, that provide loans, grants, technical assistance, and policy support to their member states.

Compared to global institutions like the World Bank, regional banks are often more closely attuned to the political, economic, and environmental priorities of their member countries. Their regional focus, local networks, and deep understanding of country contexts make them key actors in supporting climate resilience, including water security and integrated water resource management.

RDBs also play a critical role in mobilising private sector investment, building institutional capacity, and delivering climate finance at scale, especially in sectors like water, agriculture, disaster risk reduction, and urban resilience. Their influence in shaping national policy, structuring finance, and convening regional partnerships makes them important allies for advancing Just Transitions for Water Security (JTWS).

What do they fund?

While mandates vary, most Regional Development Banks fund:

- Large-scale infrastructure, including water supply, sanitation, and water management.
- Disaster risk reduction and climate resilience, including early warning systems and nature-based solutions.
- Social and economic development, with an emphasis on poverty reduction and inclusive growth.
- Increasingly, targeted climate finance to support adaptation and mitigation aligned with global and regional climate commitments.

Some banks such as the African Development Bank (AfDB) or Inter-American Development Bank (IDB), explicitly prioritise water security and climate resilience as part of their development mandates. Others, such as the Asian Infrastructure Investment Bank (AIIB) or New Development Bank (NDB), have broader infrastructure mandates, with growing but more indirect links to water resilience and just transitions.

The table below provides an overview of selected Regional Development Banks, summarising their geographic focus, priority areas of investment (including water-related sectors), and their alignment with the principles of Just Transitions for Water Security. It highlights both the direct and indirect ways these banks contribute to building water security, climate resilience, and inclusive development across different regions.

TABLE 1:
Regional Development Banks and Their Contribution to Water Resilience and Just Transitions

BANK	GEOGRAPHIC FOCUS	PRIORITY AREAS (INCL. WATER RESILIENCE)	APPLICATION TO JUST TRANSITIONS WATER SECURITY
Asian Development Bank (ADB)	Asia-Pacific	Water supply, water resource management, climate resilience, green infrastructure	Supports water security as part of inclusive, climate-resilient development; strong focus on adaptation in vulnerable communities
Asian Infrastructure Investment Bank (AIIB)	Asia (wider emerging economies)	Sustainable infrastructure, energy, transport, urban development	Indirect link; water projects contribute to climate-resilient infrastructure, but limited explicit focus on just transitions in water
African Development Bank (AfDB)	Africa	Water security, agriculture, disaster risk management, water governance	Direct focus on water security as a pillar of its climate and just transitions agenda; leads water-specific climate programs (e.g., AWF)
East African Development Bank (EADB)	East Africa	Infrastructure, water supply, health, climate resilience	Supports water infrastructure to reduce inequality and vulnerability, aligning with just transition principles
ECOWAS Bank for Investment and Development (EBID)	West Africa	Water and sanitation, energy, agriculture, climate resilience	Water investments directly contribute to inclusive development and regional water security under just transitions lens
Inter-American Development Bank (IDB)	Latin America & Caribbean	Water supply, sanitation, integrated water management, disaster risk reduction	Explicit focus on social inclusion, climate resilience, and water security; supports just transitions through community-level water adaptation
CAF – Development Bank of Latin America	Latin America	Infrastructure, water management, climate resilience, ecosystems	Aligns with just transitions by financing water security and ecosystem restoration to protect livelihoods

European Investment Bank (EIB)	Europe, Global	Water, climate resilience, green infrastructure, innovation	Water security integrated into climate finance; supports just transitions through urban resilience, water efficiency, and nature-based solutions
European Bank for Reconstruction and Development (EBRD)	Europe, Central Asia	Water utilities, climate finance, green cities, water efficiency	Invests in water efficiency and infrastructure, supporting low-carbon, resilient, and equitable urban transitions
Islamic Development Bank (IsDB)	Muslim-majority countries	Water, agriculture, disaster risk reduction, climate adaptation	Water security integrated into resilience programming, contributing to equitable climate adaptation in line with just transitions
New Development Bank (NDB)	BRICS countries	Infrastructure, water, sustainable development	Supports large-scale water infrastructure; just transition relevance is indirect but growing in policy alignment

Bilateral Aid

What is it?

Bilateral aid, in the context of climate finance, refers to financial assistance provided directly from one government to another to support climate change mitigation, adaptation, and resilience efforts. Unlike multilateral climate funds, bilateral aid is managed directly by donor countries through their development agencies and diplomatic channels.

This type of aid can take various forms, including:

- Grants, which do not require repayment.
- Concessional loans, which offer favourable terms.
- Technical assistance, providing expertise and capacity building.

Bilateral aid is typically integrated into a donor country's foreign policy and development budgets, aligning with their strategic interests, geopolitical priorities, and international climate commitments. The percentage of national income dedicated to bilateral aid varies by country and political leadership. Donor countries often deliver bilateral aid through established development agencies, such as the UK's Foreign, Commonwealth and Development Office (FCDO), Germany's GIZ, Japan's JICA, the US Agency for International Development (USAID), and Korea Iternational Cooperation Agency (KOICA), among many others.

While the Organisation for Economic Co-operation and Development (OECD) tracks official development assistance (ODA), there is still limited transparency and consistency in reporting specifically for climate-related bilateral finance.

Who do they target?

Bilateral aid is targeted at developing countries, with a focus on supporting national priorities that align with both the donor's strategic interests and global development and climate objectives.

Key recipients include:

- Developing countries and economies in transition, particularly those with significant climate vulnerabilities.
- Vulnerable communities, including those exposed to poverty, conflict, or environmental hazards.

Bilateral aid agreements often specify the intended use of funds, conditions for delivery, and dispute resolution mechanisms. Funding is commonly directed to priority sectors such as:

- Renewable energy and energy access.
- Water security and climate-resilient infrastructure.
- Digital infrastructure and innovation.
- Health, education, and social inclusion initiatives.

The specific focus of bilateral aid depends on both the donor's foreign policy priorities and the recipient country's development needs.

How do you apply?

Access to bilateral aid is negotiated directly between governments or through accredited implementing organisations.

The typical process includes:

1. Proposal Submission – Recipient governments or eligible organisations submit detailed project proposals outlining:
   - The need for funding.
   - Project plans and expected outcomes.
   - How the project aligns with the donor's climate, development, or geopolitical priorities.
2. Review and Negotiation – The donor government assesses the proposal for:
   - Technical feasibility.
   - Strategic alignment with donor objectives.

› The recipient's capacity to effectively manage the funds.

3. Formal Agreements – If approved, the terms are formalised through:

› Memorandums of Understanding (MOUs).

› Legally binding treaties or cooperation agreements.

› These documents outline conditions for delivery, monitoring, dispute resolution, and reporting requirements.

In some cases, civil society organisations, research institutions, or private sector actors can also access bilateral aid through competitive calls for proposals, typically managed by the donor's development agency.

Skills and typical stakeholders involved:

Effective bilateral aid programmes require strong technical, financial, and policy expertise on both the donor and recipient sides.

Typical stakeholders include:

- Financial and legal advisors, to structure agreements and ensure compliance.
- Project management experts, to design, implement, and monitor projects.
- Social scientists and development experts, to ensure projects are inclusive, equitable, and responsive to local contexts.
- Government officials, especially from ministries of finance, planning, climate, water, or foreign affairs.
- Civil society and community groups, particularly for projects with local adaptation or social inclusion objectives.

Priority spending buckets:

Bilateral aid can support a wide range of development and climate-related priorities, often influenced by both donor and recipient country objectives. Common spending areas include:

- Economic development, including infrastructure, agriculture, and private sector support.
- Humanitarian assistance, particularly for disaster response and recovery.
- Climate mitigation, such as renewable energy and energy efficiency.
- Climate adaptation and resilience, including water security, disaster risk reduction, and ecosystem-based approaches.
- Social sectors, including health, education, and gender equality.

The extent to which water security and climate resilience are prioritised depends on the donor country's specific climate commitments and development policies.

How often do priorities change?

Bilateral aid priorities can shift frequently, influenced by:

- Political leadership changes in donor countries.
- Economic conditions and budget pressures.
- Global events such as humanitarian crises, pandemics, or geopolitical tensions.
- Evolving international climate and development commitments (e.g., COP decisions, SDG progress).

As a result, recipients must remain responsive to changes in donor policies and priorities.

Review Process:

The review process for bilateral aid proposals typically follows these steps:

1. Administrative review, verifying eligibility and completeness of the proposal.
2. Detailed technical and financial evaluation, conducted by experts in the donor agency or through independent consultants.
3. Negotiation and refinement, where project scope, budget, and responsibilities are clarified.
4. Formal approval, through MOUs, treaties, or grant agreements.

In some cases, ongoing political dialogue between governments shapes the final funding decisions and implementation plans.

National, Regional and Country-Collaborative Climate Funds

What is it?

National, regional, and country-collaborative climate funds are financing mechanisms designed to channel, coordinate, and manage climate finance at national or regional levels. These funds are country-driven, often established by governments or regional groups to ensure climate finance is tailored to local needs, priorities, and institutional frameworks.

At the national level, National Climate Funds (NCFs) help countries collect, blend, and allocate climate finance from diverse sources, including international donors, private sector contributions, and domestic revenues. They often act as a single access point for climate finance, supporting project implementation and enhancing transparency and accountability.

Regional climate funds work similarly but are designed to pool resources and expertise across groups of countries that share common climate challenges or development priorities.

Country-collaborative funds involve multi-country partnerships or joint funding mechanisms focused on specific ecosystems or climate challenges that span national borders.

Examples include:

- The Indonesian Climate Change Trust Fund (ICCTF) – a national fund supporting climate change mitigation and adaptation in Indonesia.
- Brazil's Amazon Fund – the largest regional climate fund of its kind, supporting forest conservation and sustainable development across the Amazon Basin, with contributions from multiple countries.

Who do they target?

These funds are designed to support public, civil society, and sometimes private sector actors within the country or region, with a focus on delivering locally appropriate climate solutions.

Eligible recipients typically include:

- Government agencies, including ministries, local governments, and state-owned enterprises.
- Non-Governmental Organisations (NGOs) and community groups.
- Private sector entities, particularly for projects aligned with fund objectives (varies by fund).
- Vulnerable communities, especially where fund mandates prioritise adaptation, social inclusion, or just transitions.

The specific targeting and eligibility criteria depend on each fund's governance structure, geographic scope, and thematic priorities.

How do you apply?

Application processes vary by fund but typically follow a structured, transparent process overseen by a steering committee or governing body.

Common steps include:

1. Accreditation/Approval of Implementing Entities – Organisations seeking funding must be approved or accredited by the fund's governing body (often a steering committee).
2. Proposal Submission – Accredited entities submit project proposals aligned with the fund's objectives and investment priorities.
3. Review and Negotiation – Proposals undergo technical and financial review, with opportunities for feedback and revision.
4. Formal Agreements – Once approved, formal agreements or joint ratifications are signed, specifying project scope, financing, and implementation arrangements.
5. Disbursement of Funds – The fund's trustee (e.g., a designated bank) releases funds to the implementing entity according to agreed milestones.

Many funds provide technical assistance to support project design and ensure alignment with national or regional climate strategies.

Skills and typical stakeholders involved:

Successful operation and access to these funds require strong governance, technical expertise, and cross-sector collaboration.

Typical stakeholders include:

- A steering committee, often comprising representatives from multiple government ministries, civil society, and sometimes donors or private sector partners.
- Financial and legal advisors, supporting fund governance and project agreements.
- Project management experts, to oversee project design, implementation, and reporting.
- Social scientists and development experts, ensuring social inclusion, gender equality, and community engagement.
- Engineers and technical specialists, particularly for infrastructure or nature-based solutions.
- Researchers and academics, providing data, monitoring, and technical assessments to inform fund operations and project design.

Alternative Finance Mechanisms

Closing the gap between available financing for climate change adaptation and the needs of developing countries has necessitated the innovation of finance instruments beyond the traditional forms described in the above sections. Other forms of funds and financing vehicles are emerging including:

- Green Bonds - These are fixed-income securities designed to raise funds for projects with environmental benefits, such as renewable energy or sustainable agriculture.
- Private Equity - Involves investment funds acquiring equity ownership in private companies, providing significant capital for growth, restructuring, or buyouts. In the context of climate finance, private equity can play a crucial role by investing in companies and projects that focus on sustainable and environmentally friendly initiatives.
- Climate Vulnerable Forum (CVF) and Vulnerable 20 Group - The fund is supported by public and philanthropic contributions and was established in 2020 as a voluntary financial and implementation tool focused on increasing SouthSouth climate cooperation among the 58 members of the CVF and V20.

These instruments can be classified into different categories including:

- Debt instruments - Green bonds, climate (resilience) bonds, blue bonds, green loans, etc.
- Results-based financing instruments - Biodiversity credits, payments for ecosystem services etc.
- Financial risk management instruments - Pooled investment funds, crowdfunding platforms, credit guarantees, tax increment financing, debt-for-nature-swaps etc.

These funds target a wide range of issuers including governments, municipalities, corporations, and investors who want to align their financial goals with environmental values.

4

Water Resilience Tracker - Overview of Assessment Methods We Use

This section provides an overview and assessment of tools that the WRT can use in-country, the insights these tools have provided, and opportunities for their further development.

4.1 Country Activities

4.1.1 COUNTRY READINESS FOR CLIMATE FINANCE

Countries exhibit significant variation in their ability to access and effectively utilise international climate finance for water resilience. This variation reflects a complex interplay of factors, including institutional capacity, governance frameworks, availability of robust data, alignment with global reporting processes (e.g., NDCs, NAPs, BTRs), and technical proficiency in developing bankable projects.

Preliminary assessments indicate that while some countries, particularly middle-income nations with strong institutional frameworks, are successfully attracting climate finance for water resilience, others, notably many least developed countries (LDCs) and Small Island Developing States (SIDS), face persistent barriers.

Key Observations:

Countries with active, high-quality NDCs and NAPs integrating water resilience tend to be better positioned to secure finance.

Lack of credible vulnerability assessments, project pipelines, and national climate funds constraints readiness.

Regional disparities are evident, with Sub-Saharan Africa and parts of South Asia facing pronounced capacity gaps.

4.2 Approach to Climate-water Vulnerability Assessment

Many countries currently rely on hazard-based vulnerability assessments, which primarily focus on identifying and mapping specific climate hazards such as floods or droughts. While these assessments are important for understanding immediate risks, they often provide a narrow, fragmented view of the systemic vulnerabilities that affect water resources and related infrastructure under long-term climate change and interconnected stressors. This hazard-centric approach can inadvertently lead to fragmented interventions that address symptoms rather than root causes, increasing the risk of maladaptation or suboptimal resilience outcomes.

The Water Resilience Tracker (WRT) supports a shift towards system-based, decision-relevant assessments, designed to capture the full complexity and interdependencies within water systems. This includes understanding how water-related vulnerabilities are influenced by governance, infrastructure, socio-economic factors, and cross-sectoral pressures, as well as by climate hazards.

More organizations are turning to dashboards to make technical assessments usable for real decisions. These platforms visualize climate risks, socio-economic trends, and water and climate metrics across both space and time, helping everyone from national planners to local practitioners quickly grasp complex situations. When built around actual user needs and how institutions work, dashboards create transparency, build shared understanding, and get different agencies and sectors on the same page, particularly important when you need coordination across multiple areas of governance.

The WRT is working on resilience dashboards that go beyond just organizing data; they tell a coherent story that connects climate and vulnerability insights to actual decisions, actions, and results over time. Instead of being simple data displays, they show how risks and responses interconnect, and include some level of system thinking. Effective resilience dashboards allow users to see cascading impacts (e.g., how rainfall changes affect agriculture and food prices) and track the performance of interventions over time.'

The ultimate aim is to deliver tools and elements that make coordinated, integrated water management easier, supporting governments to move beyond fragmented, reactive responses and towards proactive, climate-resilient water governance.

4.2.1 CRIDA-STYLE APPROACH

Many countries rely on risk- and vulnerability-based assessments. The Tracker supports system-based tools like CRIDA, which integrates a bottom up approach to defining the decision making context and developing pathways that encompass long-term uncertainty. CRIDA offers decision-making under deep uncertainty and has been adapted in countries for water investment planning under climate stress.

This approach has been adapted in various countries for water investment planning under climate stress and is recognized by international bodies such as the World Bank and the Green Climate Fund (GCF) as an effective method for developing resilient water projects. CRIDA's emphasis on systematically analyzing uncertainties and informing contingent planning helps projects achieve higher resilience ratings, ensuring that investments remain beneficial despite potential negative impacts of climate change. This shift from purely hazard-based assessments to system-based, uncertainty-informed approaches is critical for building robust and adaptive water resilience.

4.2.2 GEDSI-APPROACH

The need to advance gender and social inclusion is increasingly recognized by policies on climate change and water resources management. The IPCC's Sixth Assessment Report (2022) emphasizes equity and justice as central principles in climate adaptation, while the UNFCCC has increasingly emphasized gender considerations in water and climate discussions. Countries have also individually made progress on social inclusion. A review of 56 multisector (NAP) documents submitted to UNFCCC as of 2024 suggests that all but two documents mention the word gender, and 96% of National Adaptation Plans (NAPs) mention at least one other group as being particularly vulnerable to the impacts of climate change (Dazé and Hunter,2024).

However, persistent gaps remain in implementation, limiting this recognition to policy rhetoric. For example, despite the recognition of the significance of the GEDSI approach, there are no details on how the climate vulnerabilities of the different social groups will be addressed, or the actual contributions to climate action. Additionally, women and other historically marginalised groups are more likely to be framed as vulnerable victims of climate change by climate policies, with their roles as agents of change and important actors in climate action receiving less importance.

4.3 Climate-water Resilience Indicators

A water-resilient approach to climate change requires moving beyond conventional metrics to capture the complexity, uncertainty, and interconnectivity of water systems under change. The approach on indicators is under active development and revision by the Water Resilience Tracker and is based on two complementary efforts: an FCDO-commissioned study by AGWA (from 2024) reviewing existing frameworks for water and climate resilience indicators, and Arup's City Water Resilience Framework (CWRF) developed with the City water Resilience Approach (CWRA).

The approach emphasizes the need for context-specific, system-linked, and process-based indicators that reflect non-stationarity and feedback loops, proposing a preliminary set of 40 such indicators. The CWRA, developed through engagement with nine cities, identifies 62 indicators across four dimensions: leadership, planning, infrastructure, and well-being, designed to assess urban water resilience holistically.

Together, these initiatives provide practical foundations for building scalable, learning-oriented indicator frameworks that guide adaptive decision-making across diverse water systems. The WRT aims to progress the development and use of unified indicators to baseline and track progress on water resilience.

4.4 Multilevel Governance: Connecting Cities, Basins, and National Policy

Delivering water resilience requires effective coordination across governance levels—from river basin authorities and regional planners to national ministries and local municipalities. While the WRT has focused on country-level engagement, expanding our lens to include multilevel governance is essential for unlocking systemic, lasting water resilience.

5 Progress Update for JTWS Programme

This section provides an overview and assessment of tools that the WRT can use in-country, the insights these tools have provided, and opportunities for their further development.

5.1 Water Resilience Tracker

The WRT provides governments and stakeholders with an integrative framework and practical tools, data, and indicators to integrate water resilience into national climate policy, planning, and investment processes. The focus is on strengthening country capacity to track, measure, and act on water resilience in alignment with global frameworks such as NDCs, NAPs, and the Global Goal on Adaptation (GGA).

- Engagement with over 50 government and non-government institutional stakeholders across four countries (Brazil, Egypt, Malawi, Nepal) to support national water resilience planning.
- Joint national missions in Malawi and Morocco, coordinated with Fair Water Footprints (FWF), enhancing political buy-in and aligning WRT with broader water governance efforts.
- Participation in major global events such as COP29, Africa Water Week, and Cairo Water Week, raising the visibility of water resilience as a central climate adaptation issue.
- Development of an updated indicator framework, drawing on AGWA, CRIDA, and CWRA methodologies, with a focus on system-wide, context-specific tracking of water resilience.

The WRT has refined its approach to emphasise country-led, phased implementation, recognising that integrating water resilience into national planning is a long-term process requiring technical support, political engagement, and institutional strengthening.

In its second year of implementation, the WRT will launch its website, generate knowledge briefs and technical guidance, support implementation of the WRT at national and local scales, assess NDCs, and boost implementation of our deep dive support with Nepal, Brazil, Egypt and Malawi, while scoping potential new engagement with new countries, supporters and collaborators.

In its second year of implementation, the WRT will focus on scaling its impact through a series of strategic actions. These include launching a dedicated website, producing knowledge briefs and technical guidance, and supporting the practical application of the WRT at national and sub-national levels. The programme will also conduct assessments of Nationally Determined Contributions (NDCs) to identify water resilience gaps, advance deep-dive technical support in Nepal, Brazil, Egypt, and Malawi, and explore opportunities for engagement with new countries, partners, and supporters.

5.2 Fair Water Footprints

The FWF initiative works to drive systemic change in water stewardship by embedding accountability and equity throughout global supply chains. In its first year under JTWS, FWF has:

- Engaged five producer countries (Peru, Malawi, Morocco, Zambia, Zimbabwe) and one dual-role country (Brazil), with policy and governance reforms underway in at least four.
- Strengthened global advocacy, notably through partnerships with the G20 Sustainable Finance Working Group, targeting financial regulators and corporations to embed water resilience into transition planning.
- Developed water-related Key Performance Indicators (KPIs) to track corporate action, with finalisation expected in late 2025.
- Launched initial Rapid Action Fund projects supporting community-led water stewardship and developing practical guidance for fair water transitions.

Lessons from FWF stress the need to frame water stewardship as a risk and resilience priority for businesses, to navigate declining global ESG momentum while maintaining private sector engagement.

5.3 Resilient Water Accelerator

The RWA focuses on unlocking private finance for climate-resilient water infrastructure and services, with an emphasis on catalysing investment in "primed" markets where both water security needs and enabling conditions align.

Key achievements to date include:

- Market screening across 10 countries, with Bangladesh's textiles sector confirmed as "primed" for accelerated investment.
- High-level engagement with over 140 investors and stakeholders, with particular progress in Bangladesh and Nigeria.
- Development of a refined strategy and updated tools to lower transaction costs, shorten project development timelines, and build credible investment pipelines.
- Early-stage work to explore investment opportunities in Morocco, Malawi, and South Africa.

The RWA has adapted its approach to prioritise market-specific interventions, recognising that focusing on discrete, high-impact opportunities is more effective than broad system-wide engagement.

5.4 Combined Strengths

A defining feature of the JTWS is the strategic integration of WRT, FWF, and RWA into a unified programme, enhancing efficiency, alignment, and collective impact. Evidence from the first year demonstrates:

- Country entry strategies are increasingly joint, with overlapping priorities in countries like Malawi and Morocco fostering shared activities and stakeholder engagement.
- Knowledge products, technical assistance, and capacity-building efforts are being coordinated to reduce duplication and maximise influence.
- MEL (Monitoring, Evaluation, and Learning) processes are being harmonised across the three workstreams, with updated indicators and a joint Results Framework under development.

While integration is still maturing, early signs point to increased coherence and the potential for JTWS to serve as a global model for operationalising just transitions for water security, even amid reduced development finance and heightened implementation challenges.

WATER RESILIENCE TRACKER

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