

Summary

Panama Integrated Water Resource Management Action Plan (PAGIRH) (2022 – 2026)



1 Background

The Sustainable Development Goals (SDGs), particularly SDG 6 – Clean Water and Sanitation for all – served as the strategic framework for designing Panama's Integrated Water Resource Management Action Plan (PAGIRH) for 2022 – 2026. The Plan is in follow-up to the reporting process on SDG Indicator 6.5.1 – the Degree of Implementation of Integrated Water Resource

Management (IWRM) - conducted in 2020, which showed that the country had achieved 33 per cent progress towards that goal, i.e., a medium-low level of implementation (Enabling Environment: 40 per cent; Institutions and Participation: 38 per cent; Management Instruments: 30 per cent; and Financing: 25 per cent).

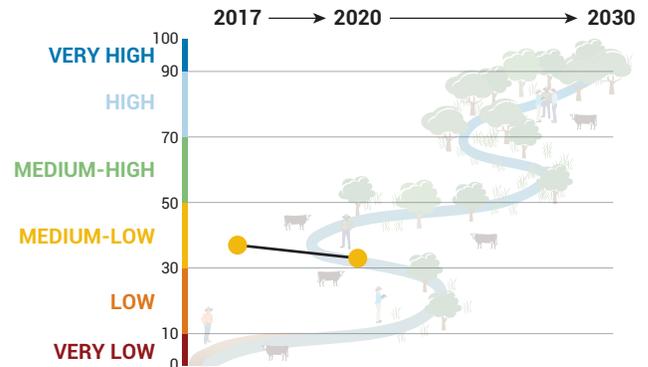
Panama (2020)

REGIÓN: **Latin America and the Caribbean**

STATUS



PROGRESS



IWRM IMPLEMENTATION

Global target for SDG 6.5.1 is "very high" implementation by 2030. Countries may set their own national target".

Note: Panama reached 33% in the evaluation of the degree of IWRM implementation in 2020, which represents an increase of 6 points compared to the evaluation of 37% reached in 2017. Source: Country Summary- Panama from UNEP's IWRM data portal.



Panama’s Ministry of Environment led the development of the **Panama PAGIRH 2022-2026** with technical and financial support from the SDG 6 IWRM Support Programme, which is being implemented by the Global Water Partnership in Central America (GWP CAM), under the guidance of the UN Environment Programme (UNEP) and in collaboration with the UNEP-DHI Centre and UNDP Cap-Net.

The purpose of the Action Plan is to accelerate integrated water resources management implementation and fulfil the commitment to provide solutions to national priorities and challenges related to water.

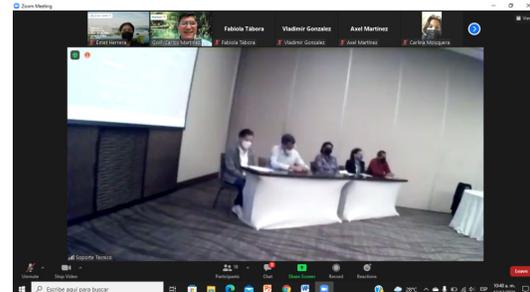
It is important to highlight that the PAGIRH is in line with other planning instruments in place in Panama, such as the Government Strategic Plan (PEG) 2019-2024, the document on the consensus built around the "Closing Gaps" Bicentennial Pact, and other national strategic instruments linked to IWRM that aim to overcome the challenges preventing the country from advancing towards achievement of IWRM.

Main challenges identified:

- Updating the Water Resource National Policy (with a gender and transboundary basin management approach).
- Approving the draft Water Law.
- Strengthening River Basin Committees in terms of IWRM.
- Preparing and updating Detailed Assessments, Environmental Land Use Plans and Basin Management Plans.
- Achieving private sector participation in IWRM elements.
- Incorporating the environmental variable and IWRM in curricular programmes.
- Conducting awareness-raising, environmental education and citizen engagement campaigns by levels and sectors.
- Creating the national hydrogeological information system.
- Strengthening monitoring of surface and groundwater quality.
- Developing an investment strategy (with different sources) for IWRM.
- Promoting compensation for ecosystem services.

 **2 Participatory Consultation Process**

The Ministry of the Environment coordinated the consultation process for the prioritisation of the actions that are part of the PAGIRH under a participatory consultation methodology. An inter-institutional Working Group (WG) was established at the outset to support the plan's methodological construction and progress. The process included three multi-stakeholder consultation workshops, which were held between October and December 2021 and were attended by stakeholders from various fields and sectors, including the public sector, civil society, the private sector, academia and international cooperation. In addition, several interviews were conducted with key water sector authorities



3 Objectives of the PAGIRH

3.1 Overall Objective

To contribute to water security in Panama, through the prioritisation of concrete actions aimed at rapidly advancing toward IWRM implementation based on national priorities, climate change scenarios, the needs of the various sectors, and institutional and financial capacity for implementation.

3.2 Specific Objectives

1. To identify national actions with specific interventions that offer solutions to the main IWRM challenges and accelerate their level of implementation.
2. To facilitate coordination between the various actors and sectors linked to water management, to advance jointly toward IWRM implementation and water security.
3. To support internal and external processes aimed at obtaining financing for IWRM implementation in the country.

4 Actions Prioritized in the PAGIRH 2022 – 2026

The prioritized actions presented below, which have been grouped by IWRM dimension, are the output of the consultation process conducted via the workshops.

Table 1

Actions prioritized in the PAGIRH

Enabling Environment: actions regarding legal framework, policies and plans for national, subnational and transboundary IWRM.	
Prioritized Actions	Responsible
1. Promote ownership of the Water Resources National Policy by all national stakeholders (organized civil society, business sector, indigenous communities, government sector, among others).	Ministry of the Environment, Water Security Directorate (SDH) and Planning, National Water Council (CONAGUA).
2. Achieve approval of the draft law to update the rules regulating IWRM.	Ministry of the Environment, SDH, Legislative Assembly.
3. Approval of new regulations on environmental flows.	Ministry of the Environment, SDH, and Climate Change Directorate (CCD).
4. Update Law 44 of 5 August 2002 pertaining to River Basin Committees on issues such as access to financing sources and their roles; increase civil society engagement under a gender approach; and integrate detailed assessment tools, environmental land use-plans and basin management plans.	Ministry of the Environment, SDH, Legislative Assembly.



Enabling Environment: Actions regarding legal framework, policies and plans for national, subnational and transboundary IWRM.	
Prioritized Actions	Responsible
5. Prepare and implement the Sewer Network and Wastewater Treatment Master Plan 2022-2025 (Consensus No: CONS-4S9YTin).	Institute of National Aqueducts and Sewers (IDAAN).
6. Promote transboundary basin management agreements.	Ministry of the Environment, DSH, International Technical Cooperation Office (OCTI), Ministry of Foreign Affairs (MINREX).
7. Climate Change Plan for Integrated Basin Management, including adaptation and mitigation measures and the integration of a gender approach developed.	Ministry of the Environment, DCC, DSH, Panama Climate Change National Committee.
Institutions And Participation: capacity and effectiveness at various levels (coordination, stakeholder engagement and gender equality).	
Prioritized Actions	Responsible
1. Promote the development of technical standards and procedures to calculate Water Footprints and Carbon Footprints in Agricultural Products.	Ministry of the Environment, MIDA, CATHALAC, Industrial Union, Fundación Natura.
2. Implement best practices for sustainable land management and restoration of productive landscapes with large-scale agroforestry, to achieve national land degradation neutrality (LDN) targets.	Ministry of the Environment – DSH, Ministry of Economy and Finance (MEF), Ministry of Agricultural Development (MIDA), The Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC), FUNDACIÓN NATURA, NGOs.
3. Develop a participatory awareness-raising-dissemination strategy for the PAGIRH to foster collaboration in its implementation.	GWP, CATIE, MIDA, Ministry of the Environment.
4. Design and develop a Diploma Course on Effective Operation of Basin Committees in Panama with a gender approach.	Ministry of the Environment, Ministry of Education, NGOs Basin Committee members.
5. Build water users' administrative and organizational capacities (Basin Committee).	Ministry of Health (MINSAs), MIDA, NGOs Ministry of the Environment .
6. Build private sector capacity to comply with subnational regulations (circular economy, CSR, water footprint, others).	National Council of Private Enterprise (CONEP), Panamanian Association of Business Executives (APEDE), Industrial Union.
7. Build the capacity of water sector technicians (male and female).	CONAGUA, National Committee for the International Hydrological Program (CONAPHI), Academia, Private sector, International Cooperation, NGOs, AECID, JICA. CCAD.

Institutions And Participation: capacity and effectiveness at various levels (coordination, stakeholder engagement and gender equality).	
8. Promote local actors (aqueduct management boards and other water users) engagement in implementation of the Increase Water Resilience Project through implementation of rainwater harvesting systems (SCALL), for various uses in Colmena Plan (Stage 1) districts, with active participation of health centres, State institutions and rural schools.	Ministry of the Environment.
Management Instruments: Monitoring tools, pollution, ecosystems, risk; basin and aquifer management, data and information.	
Prioritized Actions	Responsible
1. Develop the National Climate Data System, with participation by the private sector.	Climate Change Directorate-Ministry of the Environment.
2. Strengthen and/or increase the network of hydrometeorological stations at the basin level to better monitor water availability at the national level.	Panama Meteorology and Hydrology Institute (IMHPA), Panama Canal Authority (ACP), Electric Transmission Company (ETESA), MIDA, Ministry of the Environment.
3. Establish the Panama Meteorology and Hydrology Institute, as stipulated by Law N° 209 (of 22 April 2021).	Panama Meteorology and Hydrology Institute (IMHPA), ETESA, Ministry of the Environment, NGOs.
4. Establish and strengthen the Water Quality Laboratory.	DIVEDA, Ministry of the Environment.
5. Strengthen environmental management instruments (Audits, EIAs, BEP guidelines, among others).	Environmental Performance Verification Directorate – DIVEDA Ministry of the Environment.
6. Prepare water use balance study for sources under water stress or experiencing high demand.	Ministry of the Environment - DSH, NGOs, ACP, Smithsonian Institution, Basin committees.
7. Establish environmental flows for water sources experiencing higher demand.	Ministry of the Environment – DSH.
8. Strengthen groundwater monitoring.	Ministry of the Environment – DSH, NGOs, MIDA.
9. Strengthen the water information module in SINIA (Environmental Information System).	DSH and Environmental Information Directorate, Ministry of the Environment.
10. Prepare Detailed Assessment for watersheds (DP).	Ministry of the Environment – DSH.
11. Prepare Environmental Land Use Plans (POAT).	Ministry of the Environment – DSH.
12. Prepare Management Plans (MP) at the basin level.	Ministry of the Environment – DSH.
13. Monitor surface water quality in main rivers at the national level.	Ministry of the Environment, DIVEDA.

Management instruments: monitoring tools, pollution, ecosystems, risk; basin and aquifer management, data and information.	
Prioritized Actions	Responsible
14. Capacity development in seawater monitoring methodology.	Aquatic Resources Authority of Panama (ARAP), International Maritime University of Panama (UMIP).
15. Prepare climate risk maps (floods and sea level rise) and a vulnerability index for Panama.	Ministry of the Environment – DCC, Panama Climate Change National Committee.
Financing: availability of financing for water resource management at the national, basin, local government and transboundary level.	
Prioritized Actions	Responsible
1. Establish a roundtable with international cooperation agencies and State institutions whose remits fall within various IWRM-related sectors.	Ministry of the Environment, MIDA, MINSA, Land Degradation Neutrality (NDT) member institutions.
2. Establish coordination platforms with NGOs prioritized by the Ministry of the Environment and the private sector, to promote technical and financial collaboration for IWRM activities in transboundary and priority basins.	DSH (responsible), MIDA, MINSA, NDT member institutions, Binational Sixaola Project (Panamá -Costa Rica).
3. Prepare a project proposal for the Green Climate Fund with support from accredited entities involved in readiness and other climate investment lines.	Ministry of the Environment -DSH-DCC, GWP, CABEL, FAO, UNEP, UNDP.
4. Create municipal community projects to address water governance elements at the local level.	Ministry of the Environment –DSH, Association of Municipalities (AMUPA), Proposed NGO’s roundtable.
5. Review water fee rates, as well as initial water use inspection fees (for new users) and annual fees (for users with a contract).	Ministry of the Environment - DSH.

5 Budget

The cost of the prioritized actions is derived from the estimates made in the workshops and ad-hoc consultations; therefore, they are not official figures but rather reference figures for the Plan. A specific budget for each prioritized action should be prepared in detail by each institution

responsible for its execution, considering competence and affinity with the activity.

The following table shows the total estimated unofficial budget, by IWRM dimension:

Table 2

Total estimated unofficial budget, by IWRM dimension

Nº	Dimension	Total Estimated Cost (US\$) ¹	Likely contribution by the State and other sources	
			Contribution in US\$	Financing source
1	Enabling environment	2,900,000	150,000	<ul style="list-style-type: none"> International cooperation – The Global Climate Change Alliance (AMCC), Green Climate Fund. Government operating budget.
2	Institutions and Participation	2,770,000	650,000	<ul style="list-style-type: none"> Trust Fund - Mi AMBIENTE.
			150,000	<ul style="list-style-type: none"> Spanish Agency for International Cooperation (AECID). Government operating budget.
			150,000	<ul style="list-style-type: none"> AMCC Cooperation. Green Climate Fund. Government operating budget.
3	Management Instruments	8,235,000	635,000	<ul style="list-style-type: none"> Climate Change Adaptation Fund. Government operating budget.
			120,000	<ul style="list-style-type: none"> International cooperation - CAF Funding. Government operating budget.
			1,500,000	<ul style="list-style-type: none"> Trust Fund - Mi AMBIENTE.
4	Financing	90,000	0	
Total		13,995,000.00	3,355,000.00	24% contribution to Total Estimated Cost.

¹ The contribution was estimated based on a review of state budgets and existing external cooperation projects in the country; however, the State's financial contribution for actions is subject to the requested budget's approval by the Ministry of Economy and Finance.

The identified financial gap must be addressed with international cooperation as well as through existing internal financial mechanisms in the country.

6 Inter-institutional Coordination Mechanism

The Ministry of the Environment will be the entity responsible for coordinating the PAGIRH 2022-2026 and will establish a Working Group (WG) for inter-institutional coordination and monitoring. This WG will be made up of

a technical representative responsible for implementation of the prioritized action assigned to their institution and for generating the necessary support to achieve overall progress.

Thematic commissions may be integrated within the WG to address any needs that must be met to fulfil PAGIRH objectives. In addition, basin committees will assist with

communication, discussion, dissemination and disclosure of all progress, results and impacts achieved through PAGIRH actions at the local level.

7 Tracking, Monitoring and Evaluation System (SSME)

The aim is for collaborating institutions to integrate priority IWRM actions into programming and implementation of their Annual Operational Plans (AOPs) and Five-Year (2020- 2024) Plans through the WG.

The SSME will be the tool that will help the Ministry of the Environment and the WG to evaluate the results of the PAGIRH's implementation. Through the system, inter-institutional progress will be consolidated and information generated and shared with other stakeholders. The system will be designed based on the indicators for each prioritized

action included in the PAGIRH and will consider criteria related to timeframe, inter-institutional collaboration and technical and financial progress of outputs and processes at various levels to advance annually towards the country's IWRM.

The results achieved from the implementation of the actions planned for the year, as well as the challenges faced, existing opportunities, and actions to be implemented the following year will be presented at the WG's end-of-year meeting.

