Status of **IWRM** implementation in Central America & the Dominican Republic - *2020*

Challenges, opportunities & commitments towards IWRM in the region

Decisions on how to efficiently, sustainably and equitably allocate and use water in the Central American region are essential to its sustainable development. Its importance is reflected in Sustainable Development Goal (SDG) 6: "Ensure availability and sustainable management of water and sanitation for all".

1. Introduction

Central America is a region with an abundant availability of water. Approximately 58 per cent of its population live in urban areas. Per capita water availability per year ranges from between 4,000 to 11,000 m^3 in El Salvador, Guatemala, and Honduras to between 24,000 and 60,000 m^3 in Costa Rica, Nicaragua, Panama and Belize. The region has at least 18 transboundary aquifers and 25 transboundary river basins covering more than 42 per cent of its territory.

However, differences exist in the temporal and spatial distribution of water resources between watersheds in countries. Likewise, different pressures affect the quantity and quality of water available for different uses, including deterioration caused by pollution from inadequate wastewater treatment, basin degradation and the occurrence of increasingly frequent extreme events, among other aspects. The 2019 Climate Risk Index (CRI) ranked Honduras and Nicaragua second and sixth among the ten countries most affected by extreme weather events worldwide between 1998 and 2017. Two tropical storms, Amanda and Cristóbal, occurred in May and June 2020. In November of the same year two major hurricanes, Eta and Iota, slammed into the Central American territory barely two weeks apart, leaving more than three million victims in their wake, mainly in Honduras and Guatemala.

In addition to the above, the institutional arrangements and legal and political frameworks for water management in the region need to be strengthened to enable effective and timely decision-making around sustainable water management and use, while ensuring institutional capacities at all levels to implement IWRM. This can be achieved through the establishment of coordination and participation mechanisms among the different actors and sectors that facilitate the integration of different visions and interests for the effective implementation of IWRM and to overcome the gaps in access to water in sufficient quantity and quality.

Although IWRM is a relatively simple concept, its implementation in the Central American region has been challenging. Some countries are moving at a slower pace while others are more diligent, which explains the difference in outcomes observed and reported. This document, "Status of Integrated Water Resource Management Implementation in Central America and the Dominican Republic - 2020",

is based on data submitted by member countries of the Central American Integration System (SICA) - Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and the Dominican Republic - on their country reports for indicator 6.5.1 related to degree of IWRM implementation, both to establish the baseline in 2017 and for the new assessment cycle conducted in 2020.[12]

As of 2020, the average degree of IWRM implementation in Central America stands at 30 points, which places it in the "low" category, the same as in 2017. Under these circumstances, it is unlikely that the region will reach the target by 2030 unless investment aimed at advancing IWRM implementation is substantially increased.

2. Regional Policy Framework Related to IWRM

The Central American Integration System (SICA) is a regional body with the mandate to support and advise member countries on the development of better political, social, economic and environmental conditions. With respect to environmental issues, SICA has an environmental subsystem made up of the Central American Commission for Environment and Development (CCAD), the Regional Committee on Hydraulic Resources (CRRH) and the Coordination Centre for the Prevention of Disasters in Central America (CEPREDENAC).

SICA has developed the following instruments to guide IWRM at the regional level:

- Energy Strategy (EES 2030): Its objective is to promote the joint development of regional generation projects, sharing reserves and lowering costs to leverage economies of scale in hydroelectric projects, as well as to establish environmental safeguard guidelines.

- Regional Agenda for Social Protection and Productive Inclusion (ARISIP 2030): It aims to achieve greater social protection and productive inclusion to reduce poverty and inequality. Its strategic lines include the development of actions aimed at integrated management of water, soil and air, including pollution control; reducing the vulnerability of current surface and groundwater reserves; and sustainable management of water, sanitation and hygiene services, enhancing availability, governance and financial management.

- Regional Climate Change Strategy (ERCC 2022): Under its IWRM strategic action guideline, it seeks to strengthen modern and effective management of water resources in the region to ensure sustainability. This strategy has a implementation plan for 2018-2022 that includes actions to strengthen and develop multi-purpose water infrastructure in shared basins in the region under a water-food-energy security nexus approach, reducing vulnerability to climate change and ensuring efficient water use, and considering vulnerable groups.

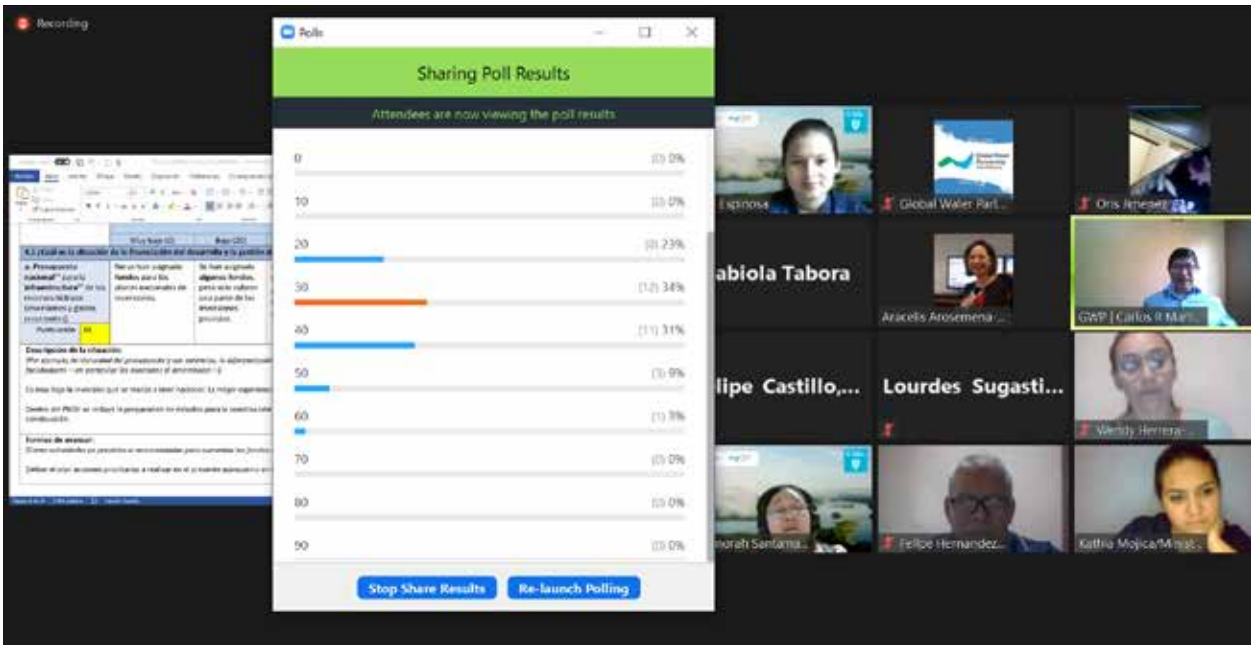
- Central American Strategy on Territorial Rural Development (ECADERT 2030): Under its nature and territories component, it seeks to influence stakeholders to adapt their practices towards considering ecosystems' capacity for renewal and biodiversity conservation. This involves creating innovation processes to mitigate the effects of climate change and adapting production systems, counteracting the inappropriate use and degradation of soil, reducing disparities between water demand and availability for irrigation and human consumption and tackling other socio-environmental challenges.

- Regional Environmental Framework Strategy (ERAM 2025): Promotes environmental integration in the region for the economic and social development of its population by articulating efforts and enhancing available resources. The strategy defines five strategic lines - one of which is IWRM, whose objective is to "strengthen sustainable water resource management, to ensure availability for all uses by promoting knowledge management and governance", contributing to meeting SDG 6 of the 2030 Agenda.

1 As Nicaragua did not measure the SDG indicator 6.5.1 in 2017, the measurement for 2020 is considered its national IWRM baseline. On the other hand, the Dominican Republic did not measure SDG 6.5.1 in 2020, so the results provided in this document correspond to its baseline from 2017.

2 SDG 6.5.1 country reports for 2017 and 2020 can be accessed or downloaded in English and Spanish at: http://iwrmdataportal.unepdhi.org/.

Photo 1 SDG 6.5.1 Consultation in Panama, July 9-10, 2020.



3. Preparation process of the SDG 6.5.1 regional report

The "Status of Implementation of Integrated Water Resource Management in Central America and the Dominican Republic - 2020" regional report was prepared in coordination with the Central American Commission for Environment and Development (CCAD); the Ministries of Environment as SDG 6.5.1 focal points[3], and GWP Central America, with technical support from UNEP-DHI and the GWP Global Secretariat through the SDG 6 IWRM Support Programme.

This report was drafted based on the review and analysis of information contained in strategic documents in the region, the 2018 Global Report on the degree of SDG 6.5.1 implementation, and questionnaires and reporting on the SDG 6.5.1 indicator assessment processes completed by countries in 2017 and 2020, which can be accessed and downloaded at: http://iwrmdataportal.unepdhi.org/.

SDG 6.5.1 questionnaires cover 33 topics across the four IWRM dimensions: laws, policies and plans; institutional arrangements and stakeholder engagement; management instruments for informed decision making; and financing for IWRM.

As a result, the report provides a consolidated overview of the region that reflects the challenges, opportunities and progress in the implementation of IWRM as of 2020. The results can inform national work plans and regional strategies, which will allow accelerated progress towards a better and more satisfactory implementation of IWRM by 2030.

3 The Belize and the Dominican Republic focal points' participation in preparing the document consisted only in the information contained in the SDG 6.5.1 assessment questionnaires

4. Status of IWRM Implementation in the Region

4.1 IWRM Implementation in Countries

The average score of IWRM implementation in SICA countries in 2017 was 29 and increased by a mere 1 point to 30 in 2020, which means that implementation in the region remains low. Overall, practically no progress was made in IWRM implementation compared to the 2017 baseline, which could be due to the short period of time between measurements (three years).

However, it is important to mention that this does not necessarily mean a step backward for IWRM, but rather can largely be attributed to more robust methodologies applied in the assessment processes in 2020. Multi-stakeholder consultations were held in most of the countries assessed in this document, with broad participation of representatives from different institutions, sectors and other stakeholders (in 2020: 414 representatives from 228 institutions - 54.6% where women).

At the regional level, it can be concluded that implementation of IWRM elements has begun, but with limited buy-in and low stakeholder participation. Table 1 lists the IWRM scores reported by countries to UNEP in 2020.

Table 1 Implementation scores across the four dimensions of IWRM in 2020.

Dimension	Costa Rica	Dominican Republic	Panama	Nicaragua	Honduras	El Salvador	Guatemala	Belize	Average
Laws, policies and plans	49	32	40	39	21	26	16	20	30
Institutions and participation	56	50	38	32	29	25	25	25	35
Management instruments	52	44	30	31	29	23	23	33	33
Financing	45	16	25	17	20	18	18	7	21
Average	**51**	**36**	**33**	**30**	**25**	**23**	**21**	**21**	

IWRM implementation	Very low	Low	Medium-low	Medium-high	High	Very high
Score	0-10	11-30	31-50	51-70	71-90	91-100

4.2 IWRM Progress 2017 – 2020

- **Laws, policies and plans:**

In general, the status of this dimension in the region is affected by the absence or limited implementation of national IWRM legislation and policies, which slows down progress in the other IWRM dimensions. There is a huge deficit in effective water governance. The Dominican Republic, Guatemala and El Salvador do not have specific legislation on IWRM, while the rest of the countries do, but its implementation is limited due to a lack of regulation or because legislation is outdated. There are important advances, such as the recent reform of Nicaragua's General National Water Law (2020) and El Salvador's 2017 National IWRM Policy and Plan, which are in their first phase of implementation.

- **Institutions and participation:**

There is a perception among stakeholders that water falls under the responsibility of several entities at national level, which generates duplication of competencies and little or no coordination between sectors. Furthermore, there are no (or not enough)

formal tools for the participation and inclusion of key stakeholders, including vulnerable groups. Further work is required on more inclusive mechanisms that strengthen a gender transformative approach and promote private sector participation.

However, there are noteworthy efforts to create mechanisms for governance and coordination between different sectors, such as the formation of the National Water Council (CONAGUA) in Panama; the Inter-Institutional and Sectoral Commission for Water, Sanitation and Hygiene (COMISASH) in Nicaragua; the Governance Mechanism (Decree 41058-MINAE) in Costa Rica; the National Inter-Institutional Committee on Watersheds (CINACH) in El Salvador; and the Water Coordination Board in the Dominican Republic. At the subnational level, the formation of the Basin Committees in Panama and the Basin Organizations in Honduras stand out.

Very little progress has been made on transboundary water management agreements. Initial progress was made through the development of international cooperation projects, including the Trifinio Plan (Guatemala, El Salvador and Honduras); Sixaola River (Costa Rica and Panama); Negro River (Honduras and Nicaragua); Goascorán River (Honduras and El Salvador); and Hondo River (Belize and Mexico). 2020 country reports on indicator 6.5.2[4], related to the proportion of transboundary basin area under an operational arrangement, show that the region has an average value of less than 10 per cent, i.e., in the 'very low' range.

- **Management instruments:**

Costa Rica, El Salvador, Honduras and Nicaragua have established national information systems, with various degrees of progress, but overall, their use and implementation still need to be improved. All countries have regulations and instruments in place to control pollution, although there is still a long way to go in terms of their effective enforcement and reversing the deterioration of water bodies and of surface and underground water recharge areas. IWRM planning processes are still far from becoming permanent consultation processes that translate into continuous improvement and learning processes at the national and basin level.

Costa Rica shows important progress in aquifer management through studies and the creation of specific technical commissions. El Salvador has initiated processes to identify and characterize aquifers, which could be systematized and shared among countries as was done with the national water information system processes. All countries have had positive experiences in designing and implementing basin management plans, so the systematization and dissemination of experiences and instruments among the countries would allow faster progress in this dimension.

- **Financing:**

This is the dimension that earned the lowest assessment scores in all the countries in the region. The budgets allocated to IWRM are insufficient, and alternative sources of income generation are little or not at all developed in the countries. This funding is usually channelled to specific projects and often comes from international cooperation funds. The progress achieved by Costa Rica in the financing dimension is related to a better enabling environment and to having instruments and mechanisms in place, such as use and discharge fees. These have yet to be created and/or need strengthening in most Central American countries.

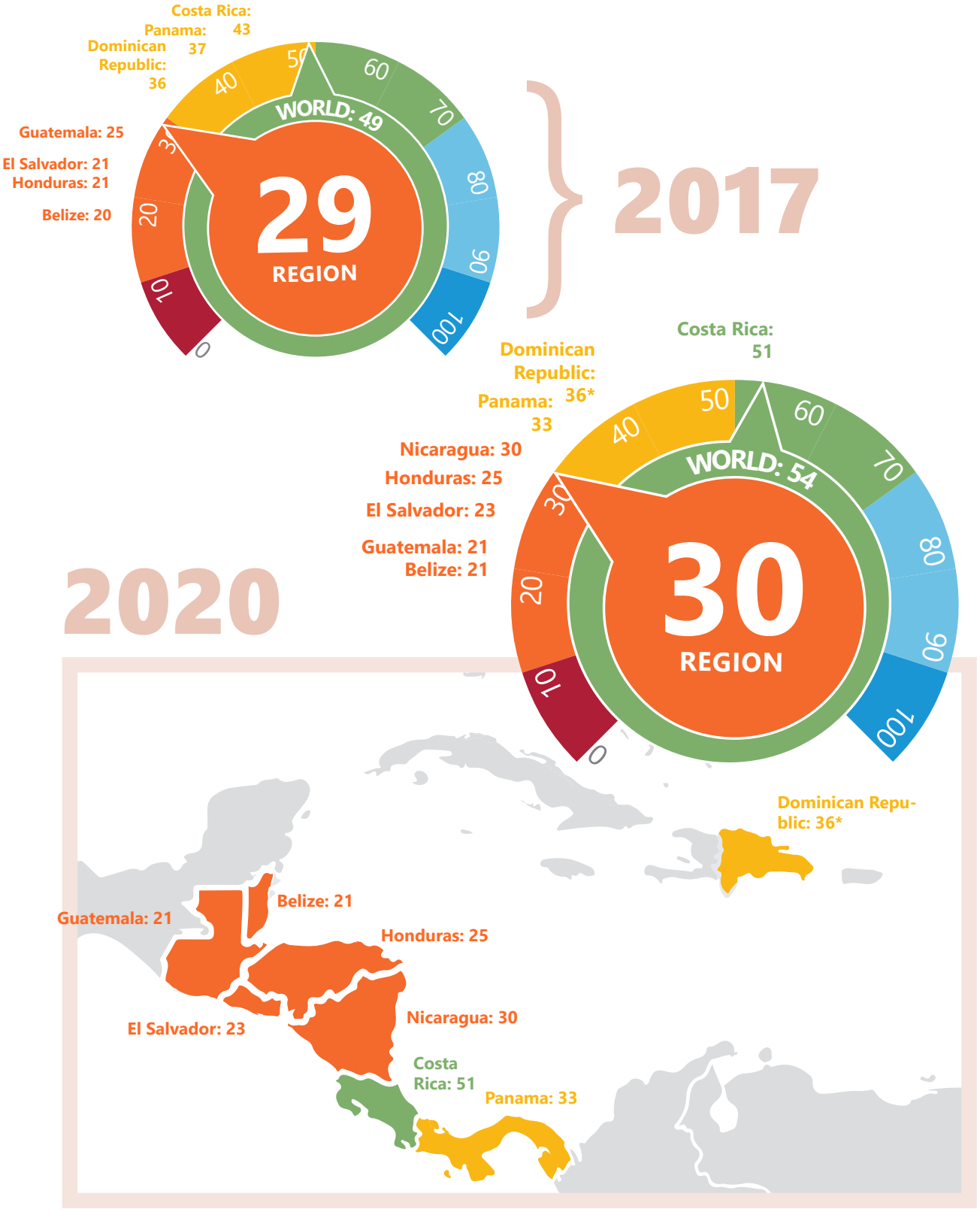
There are successful experiences in implementing financial instruments in Costa Rica, Guatemala and Panama, such as paying for ecosystem services and water funds. Water laws in Honduras and Nicaragua envisage water use fees and the creation of mechanisms such as water funds, but these have not yet been fully developed. Table 2 (page 6) shows the progress of IWRM implementation in SICA countries as of 2020.

4 Indicator 6.5.2 measures the proportion of transboundary basin area within a country that has an operational arrangement for water cooperation. UNECE and UNESCO are the custodians of this indicator.

Table 2 Progress of IWRM Implementation in SICA Countries as of 2020

# of countries	Score range	Progress against the baseline (2017) as of 2020
0	Very high **91-100**	--
0	High **71-90**	--
1	Medium-high **51-70**	**Costa Rica (51)** has made progress with creating the legal, financial and social instruments that allow the country to move forward with IWRM despite not having an updated Water Law (1942). Among these instruments are the updating of the discharge fee decree, water quality regulations, the approval of a methodology for a water resource protection fee, the national water governance mechanism, the updating of key policies for water, sanitation and wastewater and a policy for communal aqueducts. In addition, water offices have been decentralized to the regions, which has allowed a greater local presence. However, the policy, law and plan still need to be updated.
2	Medium-low **31-50**	In the case of the **Dominican Republic (36)**, progress cannot be determined because the country did not conduct the 2020 assessment, but authorized UNEP to present the same results obtained in 2017. It does not have an IWRM policy or law. It has a Water Coordination Board, which is responsible for preparing and approving a comprehensive water management strategy for the country. **Panama (33)** has strengthened the development of public policies, the legal framework, inter-institutional coordination and stakeholder participation. It has a Water Security Plan and an National IWRM Plan; however, it reports limitations regarding implementation of management instruments and in financing for IWRM, especially at the subnational level. Updating of the 1966 Water Law is pending.
5	Low **11–30**	**Nicaragua (30)** has a Water Law (2007) and created a National Water Authority; however, the latter needs strengthening to embrace its steering role. Similarly, the National Water Resources Council – which was created by law - has to be operationalized. A Water Information System has been established but is currently being updated and strengthened. The law foresees a user fee, but it is not implemented due to a lack of regulations, although concessions and licenses continue to be granted. **Honduras (25)** shows some progress, as Basin Councils are beginning to be created in some of the country's basins. Worth highlighting is the Special Regulation for Basin Organizations issued in 2019, which adopts a gender approach and involves women in their formation. Regulation has been proposed for the 2009 Water Law in an effort to make it operational. **El Salvador (23)** has made progress, among other aspects, with the approval of its IWRM policy and plan and in the creation of a Water Information System. It is also working on the development of a Water Agenda and the reactivation of the Interinstitutional Committee on Watersheds (CINACH). It does not have a Water Law. **Guatemala (21)** has made very little progress. There is no approved IWRM strategy; there is no law or plan, but a proposed policy is currently under review. The decrease in its score in 2020 can be linked to the fact that the consultation was broader and more diverse, and not necessarily because it has regressed since 2017. **Belize (21)** made very little progress as well. It has a National Water Policy from 2008 and an Action Plan from 2009, which both require updating, as well as an IWRM National Law (enacted in 2011), which has yet to be implemented. An important advance is the coordination between the Water Advisory Council, the Water Extraction Licensing Team and the World Water Day Committee.
0	Very low **0–10**	--

Graph 1 Comparison of the Implementation of SDG 6.5.1 in the Region in 2017 and 2020



*The Dominican Republic did not carry out the evaluation in 2020; therefore, the values of the 2017 evaluation are being used.

4.3 Reflections on Achieving SDG 6.5.1 by 2030

From a national perspective and based on the results submitted, it is evident that no significant progress has occurred with IWRM implementation at the regional level. Countries in the region continue to face significant challenges related to:

- Securing political support to develop or update the legal and planning frameworks required to foster an enabling environment for IWRM.
- Producing quality monitoring data on water quality and quantity and sharing it through information systems to support decision-making, accountability, assessment and continuous improvement of IWRM.
- Achieving inclusive and active participation of key stakeholders, especially local organizations, vulnerable groups, women and private businesses, to legitimize dialogue and decision-making at all levels of water governance and to support IWRM implementation as a shared responsibility.
- Sustaining continuous knowledge management programmes on IWRM to educate and build the capacity of different stakeholders, aimed at establishing a new water culture and recognizing the different values of water in the environmental, social and economic sphere.
- Integrating a focus on gender and inclusion of vulnerable groups in national laws, policies and strategies, as a basis for the development and implementation of projects and concrete actions that strengthen inclusion and equity considerations in IWRM.
- Improving monitoring systems to track environmental indicators in basin interventions and turning them into water policy assessment instruments.
- Strengthening commitment, collaboration and experience exchanges between countries to achieve joint progress, especially on water management issues in which they have already generated good experiences and lessons learned.
- Promoting the development of IWRM-related planning instruments, such as national or basin level plans, that enable the identification and prioritization of the actions required at the national level and their subsequent mainstreaming in institutions' operational plans, both at the government level and in other sectors - so financial, technical and logistical resources can be allocated for their implementation.
- Establishing financial instruments and mechanisms for IWRM, taking into account those already established in national legislation and the experiences generated in the region, to unlock the financial resources necessary to implement actions and achieve progress with IWRM implementation in a sustainable way.
- Advancing on transboundary cooperation for the management of shared basins and aquifers, based on the identification of the benefits that can be reaped from such cooperation.

Considering all of the above as well as the current rate of progress on IWRM in Central American countries and the Dominican Republic, it is unlikely that the region, or any of its countries, will achieve the global target of "very high" (score range between 91 and 100) by 2030.

This limits the achievement of water security in countries, which is part of SICA´s vision. It is therefore recommended that each country establish realistic, short (2023) and medium-term (2026) targets based on the current context and the opportunities identified. This will allow to realistically and effectively advance in the degree of IWRM implementation within those timeframes.

5. Strategic Actions to Accelerate IWRM at the National and Regional Level

5.1 Short and Medium-term Actions at the Country Level

According to the consultation process, preliminary projections for the region assume that countries will achieve progress mainly in the management instruments dimension by 2023, as a result of the creation or strengthening of national water resource information systems and the creation or expansion of basin management bodies.

In the institutions and participation dimension, the creation or strengthening of inter-institutional coordination mechanisms is planned; the private sector will be encouraged to participate in actions beyond paying for licenses; and spaces for participation of different stakeholders will be created in both consultation and decision-making processes, incorporating vulnerable groups and including gender perspectives. In terms of the dimension including Laws, policies and plans, progress will be made by countries that already have water policies and plans undergoing final review for approval, as well as those that have draft water laws under discussion in legislative assemblies or congresses. The financing dimension will depend on progress in the other dimensions, but also on the establishment of mechanisms such as such as water protection fees, payment for ecosystem services, water funds, as well as use and discharge fees, in countries that can by law employ such mechanisms.

Preliminary projections for progress by 2026 in the Laws, policies and plans dimension are that governing bodies will be institutionalized as a result of the approval of national water laws and policies, which will allow aligning the competencies of every institution involved in IWRM. This in turn will foster to the creation of financing mechanisms in accordance with the legal frameworks, which is expected to reduce the region's dependence on funding from international cooperation organizations to implement IWRM actions. Furthermore, the experience gained by some countries from creating and strengthening their legal, technical and financial instruments can be shared with other countries at the national and other levels, in particular the efforts by municipal governments and at the basin level. It is also assumed that legal, institutional, technical and financial mechanisms for transboundary water management will be established, given that Central America has 25 transboundary basins and 18 transboundary aquifers covering 42 per cent of its territory.

Table 3 presents the priority actions to be developed in countries in the region to achieve progress with IWRM in the short (1-2 years) and in the medium term (3-5 years).

Graph 2 Countries' Tendency to Implement SDG 6.5.1

Country	Trend	Distance to target	Progress to target
Belize	**Limited** or **no** progress	**Very far** from target	
Costa Rica	**Substantial** progress / on track	**Moderate** distance to target	
Dominican Republic*	**Limited** or **no** progress	**Far** from target	
El Salvador	**Limited** or **no** progress	**Very far** from target	
Guatemala	**Limited** or **no** progress	**Very far** from target	
Honduras	Fair progress but **acceleration needed**	**Very far** from target	
Nicaragua	Did not report in 2017	**Very far** from target	
Panama	**Limited** or **no** progress	**Far** from target	

Table 3 Short and Medium-term Actions in Countries for Accelerated Progress Towards IWRM

Priority actions in the short term (1 - 2 years)	Priority actions in the medium term (3 - 5 years)
Costa Rica:	
• Update the National Water Policy and the National IWRM Plan. • Strengthen and follow up on agreements established in the Water Governance Mechanism. • Improve the national water information system (format, dissemination and accessibility to stakeholders). • Scale up and strengthen pollution monitoring networks. • Consolidate projects: Real Time Groundwater Monitoring System (SIMASTIR), aquifer vulnerability mapping and Communal Aqueduct and Sewer Systems (ASADAS) sanitation projects.	• Update the Water Law of 1942 to incorporate specific elements of IWRM. • Create and strengthen basin-level water management authorities and ensure that they are covered by a specific law. • Update and standardize the existing water balance methodology. • Monitor and evaluate IWRM projects and actions to adapt budgets to actual needs.
Dominican Republic:	
• Update the National Hydrological Plan. • Enact the Organic Law of Single Planning Regions currently being discussed in the National Congress. • Include vulnerable groups and a gender approach in water resource planning and management. • Prepare an inventory of national and subnational actors implementing IWRM actions. • Scale up groundwater sampling and develop aquifer management instruments. • Evaluate the national budget for the water sector to justify an increase for IWRM.	• Create and enact a National Water Resources Policy. • Create and enact a National Water Resources Law. • Create the National Water Information System, with support from the National Statistics Office.
Panama:	
• Approve the draft of the new Water Law currently in the National Assembly. • Update and regulate the National Water Policy. • Strengthen the Ministry of Environment in IWRM aspects to enable it to exercise its role as the governing body on water resources. • Strengthen and/or create basin committees at the national level and provide them with tools and resources for their operation. • Create the National Water Information System under the mandate of the National Plan for Water Security (PNSH). • Strengthen the water quality and environmental management monitoring system. • Define and manage the budget of the Ministry of Environment considering IWRM implementation and operating expenses. • Develop an investment strategy for multipurpose reservoirs and other works.	• Strengthen the National Water Council (CONAGUA), as the inter-institutional coordination body for IWRM implementation. • Create private sector participation mechanisms for the design of IWRM policies and regulations. • Systematize the lessons learned from IWRM in the Panama Canal basin. • Develop management plans for all the established basin committees. • Strengthen compensation mechanisms for ecosystem services and water fees for conservation.

Priority actions in the short term (1 - 2 years)	Priority actions in the medium term (3 - 5 years)

Nicaragua:

(*Nicaragua indicated that short-term actions will be implemented in 2021.)*

• Publish and promote the National Water Resources Plan. • Promote the enforcement of the General Law on National Waters and its 2020 reform at all levels. • Decentralize water resource management at the municipal level and with the Interinstitutional and Sectoral Commission for WASH (COMISASH) IWRM sub-commission. • Educate and train technicians and officials in IWRM. • Update and strengthen the National Water Resource Information System (SiAgua). • Define an expenditure category for IWRM between National Water Council (ANA) and the Commission for the Environment and Natural Resources. • Establish strategic partnerships with a focus on IWRM to promote the institutional framework and local governance.	• Update the National Water Resources Policy, linking it with the National Water Resources Plan. • Create permanent mechanisms for coordination, monitoring and evaluation of IWRM in relevant institutions. • Establish public and private participation mechanisms for the design of IWRM policies, planning and management • Information exchanges and dissemination between government, academia and the private sector. • Approve the Law on Water Fees and create the National Water Fund mandated by the General Law on National Waters. • Encourage public-private partnerships for financing IWRM initiatives.

Honduras:

• Formulate the Water Policy in accordance with the General Water Law. • Approve and disseminate General Water Law regulations. • Create and institutionalize the Water Authority in accordance with the law. • Establish alliances between academia, the private sector and the government for IWRM knowledge management. • Create a National Water Information System that enables registration, processing, reporting and updating of data. • Strengthen the collection of water fees in accordance with the General Water Law and its proposed regulation.	• Develop a National Water Resources Plan. • Establish coordination, articulation and monitoring mechanisms for IWRM policy actions. • Create IWRM boards or incorporate IWRM into basin organizations and other boards in municipalities. • Perform the national water balance estimation (surface and groundwater) under a basin approach. • Regulate the granting of permits for the discharge of treated wastewater to water bodies. • Create the National Water Resources Fund in accordance with the law.

El Salvador:

(El Salvador indicated that these actions will be evaluated in order to include them in the 2021 Anual Operative Plan.)

• Advance in the implementation of the IWRM National Policy and Plan, both from 2017. • Finalize the National Water Agenda by CINACH, within the framework of the IWRM Policy and Plan. • Promote the use of a Water Information System at all levels. • Expand MARN's water quality laboratory. • Develop and manage a national programme aimed at strengthening human resources, infrastructure and equipment for IWRM. • Scale up the trust fund accessible for water boards from Northern Morazán and San Miguel to the national level.	• Approve the General Water Law currently under discussion in the Legislative Assembly. • Implement the Water Governance Strategy, led by MARN. • Develop water plans for micro-regions or micro-basins, in line with the National IWRM Plan. • Scale up the well monitoring network to improve groundwater management. • Create the IWRM trust fund, as established in the Environment Law. • Standardize the application of a differentiated fee for water use that considers its protection and conservation.

Priority actions in the short term (1 - 2 years)	Priority actions in the medium term (3 - 5 years)
Guatemala:	
• Approve the IWRM Framework Policy currently under review. • Strengthen the newly created Vice-Ministry of Water to promote the advancement of IWRM. • Train national authorities linked to IWRM, basin organizations and technical boards. • Enforce existing legislation to reduce pollution of water bodies. • Allocate an institutional budget for IWRM to MARN.	• Approve the law for the integrated, sustainable and efficient use and management of water resources. • Develop the National Water Resources Plan. • Promote alliances with the private sector for water funds, communication and other areas, based on experiences in the Southern coast. • Create a National Water Information System. • Strengthen capacities for hydrological planning and water quality control and monitoring. • Promote budget decentralization for IWRM. • Create public-private partnerships to implement strategic actions for IWRM. • Develop and strengthen at national level incentives and payment/compensation for ecosystem services in basins.
Belize:	
• Update the National Water Policy from 2008. • Effectively implement the National IWRM Law from 2011. • Create a Water Information System based on progress made by the National Hydrological Service.	• Develop a National Adaptation Plan for the water sector. • Appoint the national water authority, as required by the IWRM National Law. • Create the Groundwater Monitoring Network. • Increase budget allocation for IWRM of government institutions in the water sector.

Photo 2 SDG 6.5.1 Consultation in Honduras, July 14-15, 2020

5.2 Strategic Actions with a Regional Focus

Common actions have been identified among the countries that can be addressed and facilitated through regional institutions. As a regional SICA body, the Central American Commission for Environment and Development (CCAD) represents an excellent opportunity for countries to make joint arrangements, coordinate and collaborate to accelerate progress in IWRM implementation. The regional strategies for IWRM identified in this study are in line with the Regional Environmental Framework Strategy (ERAM) and respond to the challenges identified for the four IWRM dimensions in order to contribute to accelerate progress on SDG 6.5.1 in Central America.

A. Strengthening and Integration of National Water Information Systems (NWIS) into the Regional Environmental Observatory (OAR)

The information generated through NWISs should be integrated into the Regional Environmental Observatory through the hub created for this purpose, as an information exchange mechanism that has the potential to aim for a regional vision, given that 42 per cent region's territory is covered by 25 transboundary basins and 18 transboundary aquifers.

This requires the establishment and strengthening of NWISs to have comprehensive, updated information on the supply and demand of water resources (water balances, seasonal projections and, if possible, annual and/or monthly updates). Having unified information will contribute to better decision-making and planning around water use and conservation, taking into account climate change scenarios and variability in the region. This will also help to avoid potential conflicts stemming from the growing demand for water for different uses, and to jointly manage financial resources to make more sustainable water investments that contribute to water security.

B. Management of Risks Related to Water and Climate Change

The goal is to establish a preventive approach by improving water management as a mechanism to reduce vulnerability. Links between the risk, climate change and water agendas must be strengthened by identifying the causes and impacts of extreme weather events, and by preparing studies on the benefits of action and the costs of inaction that allow promoting measures to advance climate resilience and water security.

This strategy is connected to ERCC 2022 and ERAM 2025 and operationally linked to the capacity of the Central American countries to ensure that NWISs and hydrometeorological services have adequate databases to create regional climate change scenarios (for drought and flood events). This includes using recently developed tools such as the CEPREDENAC and the CRRH platforms.

C. IWRM Knowledge Management

As indicated, countries in the region have achieved different levels of progress and acquired lessons learned that are worth systematizing and sharing. Therefore, conditions should be created that enable the exchange of good practices related to IWRM from projects at local level, as well as on governance issues related to policy and institutional frameworks, including coordination and management mechanisms. In this sense, South-South collaboration between countries should be promoted, as well as the systematization of experiences and the organization of exchange and training events to create and strengthen institutional technical capacities at all levels. The IWRM module or toolbox will provide knowledge on good practices in the countries in the four IWRM components and will also contain information on other approaches such as traditional knowledge and practice, among others.

D. Public-private Partnerships for IWRM

To achieve progress on this issue, each country should create an agenda on water security and IWRM to help establish agreements that mobilize both national and international investments for the protection, management and conservation of water resources; to create or replicate financial mechanisms that have been successful in other countries and that help overcome existing financial gaps; and to generate internal mechanisms to supplement cooperation resources.

There are positive experiences with public-private partnerships in the region such as the Water Funds, including Agua Tica in Costa Rica and FUNCAGUA in Guatemala. Another example are the fees for water use and discharge. They are addressed in several of the existing legal instruments in the region, and which in some cases have been successfully imple-

Photo 3 SDG 6.5.1 consultation in El Salvador, July 16-17, 2020.

mented even without updated laws. As one of the major contributors, the private sector plays an important role in both the design and application of these fees. In some countries in the region, certain productive sectors are already assuming an active role in water resource management, sometimes also in aspects such as the protection and efficient use of water, regardless of the existence or lack of regulations since water is an essential input for the production of their goods and services.

E. Management of Regional Funding to Accelerate Progress on SDG 6.5.1

Accelerating progress on the 2030 Agenda will require designing and managing initiatives and projects that facilitate securing the financial resources needed to make rapid progress on SDG 6.5.1. Several water-related programmes, projects and actions are currently being implemented in the region with international cooperation funds. This provides an opportunity to evaluate the good practices and lessons learned to develop new initiatives that ensure continuity and that complement some elements of IWRM that have not yet been addressed.

Securing the financial resources needed to overcome identified challenges will require joint responsibility by public entities, the private sector and society as a whole. This also implies the creation of procedures to ensure transparency, accountability and efficiency in their use. In particular, mechanisms have to be established that allow channelling resources from international cooperation and from public or private sources sustainably over time.

The Financial Mechanism to Support Environmental Integration - an instrument for managing financial resources and applying structured procedures to facilitate actions that ensure implementation of the ERAM – will be used as a reference. This mechanism involves different actors and brings countries together to increase their level of ownership and the application of regional instruments to achieve prioritized lines of action, including actions to accelerate implementation of IWRM by 2030

F. Strengthening transboundary water management

The countries recognize that efforts must be made to improve transboundary management and cooperation, which is also reflected in ERAM 2025. This includes follow-up actions to the Regional Multi-Stakeholder Dialogue initiative launched in 2019 by CCAD with support from GWP Central America and IW-Learn/GEF, which is considered an essential mechanism to promote transboundary water cooperation.

The establishment of a Community of Practice will be promoted to foster exchange of experiences and to strengthen capacity in IWRM and transboundary basin management. This should go hand in hand with the development of regional guidelines that provide orientation to countries in the establishment of agreements on transboundary water management and facilitate consensus at the policy and decision-maker level. In this regard, it will be important to have the support of UNECE and UNESCO as custodian agencies for Indicator 6.5.2.

5.3 Regional Institutional Framework to Support IWRM

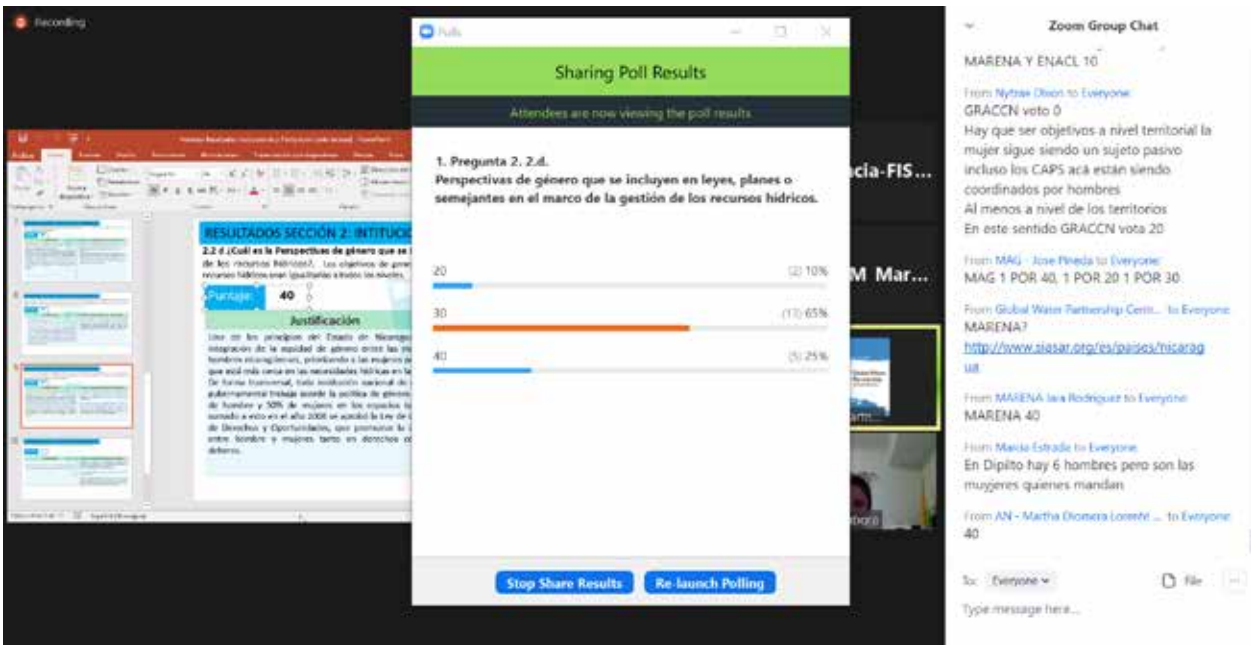
The formation of the IWRM Technical Committee in 2015, attached to CCAD, was an important development in the region in terms of an institutional framework. Furthermore, a work agenda, i.e., the Water Agenda, has been established for this Technical Committee as part of the implementation of the ERAM IWRM strategic line. CCAD's IWRM Technical Committee includes a representative from every Ministry of the Environment (water/basin/water resource directors, as appropriate) who act as the national IWRM focal point and lead the consultation processes for the assessment of indicator 6.5.1. In most cases, they also lead or are directly involved in the assessment of indicator 6.5.2.

Regional institutions, such as the CCAD, CAC, CRRH and CEPREDENAC are and will be key to accelerate progress toward the SDG indicator 6.5.1. The implementation of the aforementioned strategies will require support from strategic partners, so that actions are carried out adequately and in a timely manner in coordination with the IWRM Technical Committee. This will allow assisting countries in building their institutional capacity to achieve SDG 6.5.1 by 2030, focusing on advancing the enabling environment, knowledge management, financing, and adequately addressing common challenges among countries, such as the management of shared transboundary watercourses.

On the other hand, countries have been supported with their SDG 6.5.1 assessment and reporting processes through the SDG 6 IWRM Support Programme. This programme is implemented under the guidance of UNEP, with collaboration from UNEP-DHI and Cap-Net/UNDP and is coordinated by GWP. The objective of the program is to support countries to design and implement responses that promote and accelerate measurable progress toward achieving SDG 6 indicator 6.5.1. The program will help to mobilize resources and provide technical assistance for the preparation and implementation of action plans at the national level, as well as for actions from other instruments such as national agendas, water plans and strategies which have the potential to contribute to progress on SDG indicator 6.5.1. It will also be possible to collaborate on the strategic actions included in this document.

Through the IWRM Technical Committee, CCAD's facilitation and the involvement of strategic partners, a binding participatory platform will be available for the monitoring and implementation of activities related to the SDG 6.5.1, since decision making and securing financing depend on timely information. It is recommended to have an initial IWRM support phase of at least three years, based on the national and regional actions proposed in this document. This process can be facilitated by both CCAD and the SDG 6 IWRM Support Programme, with the support of strategic partners.

Photo 4 SDG 6.5.1 consultation in Nicaragua, May 28, 2020.



6. Conclusions regarding SDG 6.5.1 in the Region

The current degree of IWRM implementation in the region is considered "low" (regional average of 30 points). In other words, the institutionalization and implementation of IWRM elements has begun, but with limited application as well as limited buy-in and participation by stakeholders in the countries. At country level, only Costa Rica falls within the category of "medium-high" with an overall score of 51 in 2020; followed by the Dominican Republic and Panama with overall scores of 36 and 33, respectively, which places them in the "medium-low" category; while Nicaragua (30), Honduras (25), El Salvador (23), Guatemala (21) and Belize (21) remain in the "low" category.

Individual successful experiences of countries in each IWRM dimension can be shared through the IWRM Technical Committee. The focal points will be able to convey these experiences back to their countries. This will help enable those countries that still lack laws, policies, plans, national information systems, governing bodies, participation mechanisms, pollution control management instruments, conservation and recovery of water ecosystems, financial mechanisms such as water funds, user and discharge fees, etc. to replicate and/or adapt the necessary measures to progress faster toward IWRM implementation in the region.

The Central American Integration System (SICA), through its specialized institutions (CCAD, CAC, CRRH, and CEPREDENAC, among others), has developed strategic lines and actions such as the 2030 Energy Strategy, the 2030 Regional Agenda for Social Protection and Productive Inclusion, the Central American Strategy on Territorial Rural Development , the Regional Climate Change Strategy and the 2021-2025 Regional Environmental Framework Strategy, which will all contribute to achieving greater progress in the degree of implementation of the IWRM dimensions and therefore toward achieving SDG 6.5.1.

Advancing in the implementation of IWRM should be a fundamental part of the strategies developed by the countries in the region to recover from the impacts of COVID 19. The strategies proposed in this document, as well as country-specific challenges and opportunities, can contribute to prioritize actions and resources for the countries' recovery processes.

For the next SDG 6.5.1 indicator assessment, it is recommended that all countries in the region carry out participatory multi-stakeholder processes to keep the process robust and to ensure that the reality of IWRM at the national and other levels is reflected. In this regard, it is expected that the SDG 6 IWRM Support Programme, which has been assisting countries with SDG 6.5.1 assessment and reporting processes, will continue to provide support with the assessment reports for 2023 and 2026 and with the preparation and implementation of IWRM action plans to accelerate progress on SDG indicator 6.5.1 and other related indicators in the 2030 Agenda.

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This is a summary of the document "Status of Integrated Water Resources Management implementation in Central America & the Dominican Republic - 2020", available in Spanish. GWP is an international network of organizations involved in water management. Our vision is a water secure world and our mission is to advance governance and management of water resources for sustainable and equitable development.