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STATUS OF NATIONAL INTEGRATED WATER RESOURCES MANAGEMENT PROCESSES IN CENTRAL AMERICA



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STATUS OF NATIONAL INTEGRATED WATER RESOURCES MANAGEMENT PROCESSES IN CENTRAL AMERICA

1. Introduction

The Central American countries are at different stages in the institutional and capacity building processes within the water sector and in the development of national water management plans. As a result of the conflicts that affected the region in the past 30 years, the allocation of public funds to the sector practically stopped during that period after the significant progress that had been achieved during the 1970's. The peace agreements of the late 1980's and the on-going modernisation of the state, however, have changed the situation once again, providing a new basis for prioritising environmental and water issues. Thus, all the Central American countries are in a transitional phase towards new efforts to strengthen human resources and institutional capacities.

Acknowledging physical interdependencies (shared river basins) and in order to share experiences and exploit economy-of-scale effects, the Central American countries in 1997 decided to address regional issues by establishing a regional water action plan. By means of a highly participatory process involving hundreds of stakeholders through workshops in each country, a good ownership of the planning process was ensured.

2. Brief Country Assessments

2.1 BELIZE

The numerous rivers and heavy rains, yet low population and low level of industrial and agricultural development, may be a few of the contributing factors to the continued misconception that Belize has an abundance of fresh water. The few industries that existed in Belize in the 1970's and 1980's did not place any significant pressure on this vital resource. Belize has not attracted to date the types of heavy industries that could impact the fresh water resources greatly. However, during these same decades there was a rapid increase in Belize's population, especially through immigration from neighbouring countries due to civil wars in other Central American countries. It could be inferred that the lack of pressure from civil society on the issue of water resource management may have also contributed to the lack of governmental initiative (policy and legislative) to address this vital resource. The absence of a legal mandate to control a common resource may have also contributed to the increase in exploitation of water resources, and to the misconception by the national leaders that Belize can sustain much more economic development before the fresh waters begin being threatened.

There is currently no legislation that comprehensively addresses water resource management. There was only one attempt in 1994 to establish a national water policy and legislation. This initiative was started by the then Pro-Tem Water Commission, which consisted of key Government Agencies and professionals in the field.

Unfortunately, during the process of developing this policy & draft law, there was a lack of adequate consultation and involvement of members of the Commission itself and of key government agencies. This may have been the main reason why some stakeholders raised many concerns about the process that was followed and its lack of proper and meaningful consultation with them. As a result, there was opposition to key recommendations made in the consultancy report, recommendations that were subsequently placed into the draft legislation. This unfortunate occurrence may have been the major contributor to the subsequent failure of this whole initiative and the gradual disappearance of the Water Commission.

No further steps have been taken to address this essential resource in an integrated manner. On the contrary, it took many years before the institutional responsibilities regarding water management began to be clarified. Since 1994, there has been increased pressure on the use of fresh water in the domestic, agriculture (aquifers) and aquaculture (surface) sectors. The case is that, in spite of recent conflicts between users of surface waters, neither citizens nor NGOs prioritize water resource management and to date there is no organized political pressure on government to place water resource management as a priority in its agenda. This has also led to a lack of data and information gathering and of a public awareness programme on fresh water, both needed to advance this topic. Hence, it can be summarized that in Belize there is until now a lack of consciousness on the issue.

The major legislation that addressed water resource management in Belize was the Water and Sewerage Authority (WASA) Act. This law basically granted to this statutory body the sole responsibility of developing potable water supply plans and programmes. This mandated responsibility was never appropriately implemented and, in the year 2001, in their quest to privatize the domestic water supply services, the government passed the Water Industry Act, which repealed the WASA Act. Some critical regulatory responsibilities were then assumed by different ministries while the water supply service was privatized. Even though this complicated the possibility of developing a comprehensive water resource management policy and legislation, it granted the opportunity to do something in the water sector in Belize.

Besides the inadequate involvement of key stakeholders, other problems that came to light during the above mentioned planning process were the lack of historical data and technical information on water resources in Belize, and the need to better understand the complexity of the institutional and legal responsibilities of various agencies and organizations involved in water resource management. Not-with-standing, the recommendations made in the policy report and draft legislation were technically sound, are still applicable today and achievable in the long term. The financial sustainability of the initiative was well thought out; it proposes that the generation of revenues to maintain water resource management sustainable be done nationally, without dependence on foreign assistance.

2.2 COSTA RICA

This country has a General Law on Water issued in 1942. For the past two years, a bill has been discussed in Parliament that would update this legislation, incorporating modern concepts based on IWRM. It has been a widely participatory process, incorporating all relevant sectors, and the bill is expected to be approved within a few months. Additionally, there is abundant sectoral legislation --on more specific topics such as potable water, hydroelectric generation, irrigation and tourism-- and Presidential decrees regulating this resource.

In spite of its old General Law on Water, Costa Rica has not had a national policy on the topic. The multiplicity of laws, responsibilities and actors in the sector clearly indicate the need to define such a policy. During the current administrative period, started in May, 2002, both the Executive and the Legislative branches of government have given a high priority to water resources within their environmental agenda. The 2002-2006 National Development Plan highlights the need for an improved inter-institutional coordination and a more coherent legislation, an mentions the definition of a policy and the formulation of an IWRM National Plan among its main goals.

The Ministry of the Environment and Energy (MINAE, Ministerio del Ambiente y Energía), with IADB support, has initiated the preparation of an IWRM National Strategy which is expected to provide the basis for a subsequent and wider ranging IWRM National Plan. IADB's technical cooperation supports the Government of Costa Rica in developing its own conception of a rational and sustainable, shared and responsible mode of managing water in the country. Its specific objectives are: (i) to prepare an IWRM National Strategy and an IWRM National Policy; (ii) to spur approval of the new General Law on Water by Parliament; and (iii) to provide the basis for the future preparation of the IWRM National Plan. Funds have already been approved and actual work is scheduled for January, 2004.

The Costa Rican legislation defines MINAE as the leading agency for water resource management. It has not yet fully assumed this role, however, and numerous other entities also participate, overlapping in some areas and leaving other ones unattended. In August, 2002, a Presidential Decree created the National Council on Water (Consejo Nacional de Aguas); although the main water related agencies are its members, an improved coordination and a better definition of specific responsibilities for each agency are required in order to minimize overlaps and facilitate their functioning.

Other constraints to proceed with this IWRM planning effort are the insufficient availability of funds and the insufficient scientific information, e.g., there is no water budget for Costa Rica and hydro-meteorological information is not uniform along the country. In fact, this information is thorough with regards to watersheds with a potential for hydro generation, where the Costa Rica Electricity Institute (ICE, Instituto Costarricense de Electricidad) has produced it, but is scarce about other watersheds. The existence of a wide consensus should be noted, however, on MINAE being the appropriate leading agency for water resource management and for preparing the plan.

Although Costa Rica and its political authorities are committed to IWRM planning, additional financial support is required. Besides the IADB funds already allocated for the first phase, additional funding needs to be sought and negotiated. Other requirements that need to be met in order to successfully initiate planning are: (i) to define the agency in charge; (ii) to create a task force that will support the process; (iii) to generate a wide participatory process involving stakeholders from the public and the private sectors, for consensus building, and for preparing and validating the plan; (iv) capacity building across the board; and, finally, (v) legislative approval of the new General Law on Water may also be necessary.

2.3 EL SALVADOR

The only legislation on IWRM in El Salvador was passed in the early 1980's; however, it is very sketchy and is generally ignored because its validity is unclear. Existing sectoral laws include those creating the autonomous agencies in charge of potable water and energy and the Law on Irrigation and Drainage, that establishes the rights of use. Draft pieces of legislation on potable water and sanitation, fees and subsidies, and IWRM have been discussed in recent years, but have not made their way to Parliament. The widespread interest in water has been shown by the involvement of municipalities, community-based organizations, NGO's, professional associations and political parties, besides the central government, in these discussions.

By the end of year 2002, a National Water Policy (Política Nacional Hídrica) prepared by the Ministry of the Environment (Ministerio de Ambiente) was approved by the Presidential Cabinet. This policy has received much criticism because its preparation lacked any meaningful participation or consultation; moreover, to date it has not been validated by water users or other relevant agencies. Nevertheless, it is orienting this Ministry in an internal organizational process that is expected to consolidate its leadership on the water sector by 2004.

In El Salvador, the institutional framework for water resources is centralized in the Ministry of the Environment and the Ministry of Agriculture (Ministerio de Agricultura), while more specific roles are assigned to other governmental agencies. Several coordinating bodies have been established, such as the Potable Water and Sanitation Network (Red de Agua Potable y Saneamiento), where public entities participate alongside with NGO's, international cooperation and other stakeholders. The "National Water Agenda" (Agenda Hídrica Nacional), with a more integrated focus on water resources, is a group of recent creation. It mostly was the initiative of local NGO's and is now in the process of building alliances. It is expected to generate momentum for the preparation of an IWRM National Plan. Another important actor is the FORGAES Program, which has an ample mandate to strengthen environmental management in El Salvador, including inter-institutional dialogue. It is supported by the European Union.

Presently, IWRM plans and Water Efficiency plans are not national priorities in El Salvador. The only previous planning experience worth a mention is the Water Master Plan initiated in 1982; it is little known and has been underutilized. Future planning efforts will have to consider the need to: (i) involve all the relevant sectors in the preparation process, (ii) fundraise to complement the scarce governmental funds;

(iii) produce reliable hydro-meteorological information; (iv) create a national register of water users; and (v) significantly improve inter-agency coordination. Some important technical work is presently going on, however, such as the preparation of a hydro-geologic map and that of some micro-regional water budgets; the latter, intended to support programs under execution, are supported by the Swiss and Japanese cooperation agencies and IADB.

Additional requirements for a successful IWRM planning in El Salvador are: (i) to generate sufficient citizen and political support; (ii) to select the agency in charge of plan preparation; (iii) capacity building at all levels; and (iv) a stand by during the pre-elections process which is presently under way; i.e., start activities the national elections of January, 2004.

2.4 GUATEMALA

There is no general law on water in this country and the different bills proposed in the past have not gone far in the legislative process due to the scarce interest shown by the highest political levels. One such bill was drafted with IADB funds for the Water Resource Management Program (Programa de Manejo del Recurso Hídrico), a unit within the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería, MAGA). This bill was considered an appropriate and technically correct document, but it was replaced in Parliament by a different text of unclear origin; neither one was passed. It is hoped that the new government (to be inaugurated in January, 2004) will endorse the MAGA bill and advance its approval. On the other hand, a number of sectoral laws on water related topics exist in Guatemala.

A National Water Policy was recently completed by the MAGA; it was partly financed by IADB and the effort was led by IDEADS, a private research institute. This policy has been criticized because many interested sectors, such as municipalities, farmers, and indigenous and campesino groups, were not involved in its preparation. It incorporates modern IWRM concepts but it mostly reflects the consensus reached by a group of public servants and academicians, and has had little actual impact.

The institutional framework is an obstacle for achieving IWRM in Guatemala. In general terms, it is highly fragmented and very vulnerable to political change. It is unclear which entity is supposed to take leadership for an integrated consideration of water. In recent years, the leading agency for water management processes has been the MAGA, but its Water Resource Management Program has enjoyed very limited political support. One of the reasons is that the Ministry of the Environment was only created in the year 2001, through a transformation of the former National Commission on the Environment (Comisión Nacional de Medio Ambiente). The existing Inter-Agency Commission on Water Resources (Comisión Intergubernamental de Recursos Hídricos) is formed by representatives of water-related public agencies and provides for their coordination. It is led by the Ministry of the Environment.

IWRM plans and water efficiency plans do not appear to be national priorities. In 1999 and with IADB financial support, a national plan of this sort was initiated by a technical group hired to this end. They began by generating information and by

involving representatives of diverse sectors (industry, ranchers, small users, etc.). However, the inauguration of a new government in January, 2000 caused the cessation of this effort.

The main constraints for IWRM planning in Guatemala are: (i) the scarcity of reliable hydro-meteorological information; (ii) the nonexistence of a register of concessions (only 0.5% of water licenses are registered); (iii) the lack of an economic valuation of water resources; and (iv) the insufficient inter-institutional coordination. Moreover, appropriate political will is required, as are the definition of an agency in charge of plan implementation, capacity building at the national level and a halt until the elections process is over, which implies starting after January 2004. Nevertheless, Guatemala counts on well trained local staff and a positive environment among some sectors (such as municipalities, public institutions, NGO's and academicians) having an acute awareness of the need to establish effective IWRM regulations and practices.

2.5 HONDURAS

A General Law on Water, passed in 1927, is still valid but of little functionality, because the needs and conditions of the country have changed much. A bill to update it was prepared almost five years ago and the Ministry of Natural Resources and Environment (Secretaría de Recursos Naturales y Ambiente) hired experts to prepare a second draft that would adjust the institutional framework and harmonize this bill with other legislation; it still awaits parliamentary discussion. On the other hand, Parliament approved the Law on Potable Water and Sanitation in 2003 in spite of the inconformity of some sectors. Efforts are being made to raise citizen awareness on this new legislation and the regulations are being prepared.

The Parliamentary Committee on Natural Resources, Water Resources and Mining requested support from the Water Platform to review and update the 1927 law. As a result, a bill with strong technical bases is being drafted in a highly participatory process. Every important stakeholder is being included and meetings were organized in eight sites around the country, to ensure that the critical aspects of the different regions would be identified and analyzed. A very positive environment for passing this bill in Parliament already exists among legislators of all political groups, the problem being that they expect the draft legislation to be ready within a non-realistically short period of time. The Water Platform is a group gathering representatives of government, users of different types, basin boards, hydro-electric generation, NGO's, donors, etc.

The Ministry of Natural Resources and Environment is the formal governmental leader for water issues. It lacks, however, the political strength to perform the task appropriately and is weakened by the frequent turnover of its technical staff, following political change. In the future, the Water Platform might be providing the badly needed stability to this sector. Other agencies involved are the Ministry of Agriculture and Livestock (Secretaría de Agricultura y Ganadería), in charge of irrigation; the National Energy Agency (Empresa Nacional de Energía Eléctrica) and the Aqueduct and Sewerage National Autonomous Service (Servicio Autónomo Nacional de Acueductos y Alcantarillados, SANAA). The proposed new legislation would give supervisory functions to the latter while charging the municipal

administrations with the operational responsibilities. Additionally, the Executive Commission for the Sula Valley (Comisión Ejecutiva del Valle de Sula) has been active building infrastructure for the northern cities. The Permanent Contingency Commission (Comisión Permanente de Contingencias) prevents and alleviates risks such as floods and droughts.

To date, planning for water resource management has received little attention in Honduras. There is a proposal to prepare a Watershed Management Strategy still awaiting funding. CEDEX, a Spanish center of water studies, presented a document where water demands are balanced against the resources available to meet them, extending its estimates to the year 2025.

Some of the most significant constraints to the advancement of IWRM in Honduras are: the institutional weakness (including centralization, low political clout, the very modest budgetary allocations and poor law enforcement), the lack of citizen awareness and a meaningful community involvement, the scientific and technical weakness (there is little hydrologic information, trained human resources are extremely scarce and those in technical positions are often unable to correctly interpret the available data). The positive side is represented by the awakening of an interest in IWRM among some user sectors and communities as well as the water budget studies that have been recently conducted.

2.6 NICARAGUA

The Nicaraguan legislation and institutions have regulated water issues only for sectoral purposes. Numerous rules, dispersed in many legal bodies, affect water use and management. The Constitution establishes the public domain on water; the Civil Code recognizes water as a public good of free use, although subject to some rules of ownership; finally, there are a number of specific laws such as those creating the water related public agencies. Representatives of these agencies form the National Commission on Water Resources (Comisión Nacional de Recursos Hídricos), including the Ministries of Industry and Trade, Environment and Natural Resources, Agriculture and Forestry Development, and Health; and the Institutes of Territorial Studies and Electric Energy. This Commission is charged with coordinating these entities and advising the President of Nicaragua. Briefly, it can be stated that the nonexistence of a general law on water does not imply a legal void on the matter; however, there is no coherent set of regulations since the existing ones have been issued at different times and are not geared towards IWRM.

Several drafts for a General Law on Water, including one prepared in 1997 under the Water Resources National Action Plan (Plan Nacional de Acción de Recursos Hídricos, PARH), have been proposed but have not progressed towards enactment. Two such initiatives came along in 2003; one was presented to Parliament by the Consumers Network (Red de Consumidores), and another one is being drafted within the Executive Branch. The latter has received GWP support. Both coincide in a number of aspects; the government, however, stresses administrative issues, consolidates the Network as a permanent national water authority and assigns control of rights of use, environmental issues and information gathering to different agencies. The bill sponsored by the consumers group, instead, stresses social issues and

proposes the creation of a new agency centralizing the different responsibilities on water.

A National Water Policy (Política Nacional Hídrica) for Nicaragua was prepared by the Ministry of the Environment (Ministerio de Ambiente) with GWP support, in the year 2001. It represents the consensus of the various sectors and is based on IWRM principles. It strives at orienting IWRM at the national, regional and local levels, as well as the interventions of citizen organizations and the general populace, with the purpose of preserving, restoring and improving the quantity and quality of the water needed to foster life. Furthermore, it aims at ensuring that water management harmonizes with economic growth, social equity, an improved quality of life and the sustainable use of environmental resources. Among its guiding principles, this policy states that (i) water use for human consumption is privileged over all other uses, and (ii) prevention and preservation are to prevail over other aspects in both public and private water management.

The roles of the public sector with regards to water management have traditionally been fragmented among various agencies, whose mandates are often unclear or overlapping. Law 290, a recent attempt to reform and modernize the Nicaraguan public sector, improved to some degree the definition of institutional roles and provided a basis for the above mentioned bills. This wide ranging process is also promoting decentralization, by providing the regional and local governments as well as the civil society with more participatory and decisive roles with regards to water management.

Nicaragua is the only Central American country having a Water Resources National Action Plan, the above mentioned PARH; it was completed in 1998, after 29 months of intense activity, with financial support from DANIDA. The National Commission on Water Resources led the process, with the active involvement of the Nicaraguan institutions and a foreign consulting firm providing orientation. The final reports comprise 13 volumes covering such aspects as policy, legislation, institutional framework, economic instruments, technical topics and an Action Plan with recommendations.

The PARH aims at confronting the weaknesses of the water resources management system in Nicaragua by facing in every aspect the challenges posed by integrated management principles. Its short-term goals are: (i) to develop a comprehensive water sector strategy, based on clear policies and a feasible and acceptable institutional framework; (ii) to develop a legislative and regulatory framework; and (iii) to develop a program for the short- and long-term accomplishment of water resource related actions. These goals are to be attained by providing to the participating institutions improved capacities for decision making along actual opportunities to carry on their own initiatives.

While the Nicaraguan government has failed to formally adopt the PARH, follow up and monitoring of the actions therein proposed have been tenuous at best, mostly because the responsibility for plan implementation was not clearly identified on any single agency and the interest of the participating parties has decreased as a consequence. The plan has been important, however, as a basis for the new

legislation promoting IWRM and, in general terms, for orienting the action of the public sector.

The identified constraints for further implementing IWRM in this country are the following: Political will is scarce, the institutional structure is weak, the individual agencies are grossly underfunded, they still need a more clear definition of their responsibilities and a much improved coordination among them, technological resources are scarce, and there is a notorious need of specific education and training for the human resources of this sector.

In order to regain the impetus for IWRM planning in Nicaragua, a strategy is required to update the PARH and set it in motion anew, comprising adaptations to the local political and social environment, and the designation of an agency to bear the overall responsibility of plan implementation. Additional requirements are technical and financial support, political will and capacity building at the national level.

2.7 PANAMÁ

The General Law on Water was passed in 1966, thereby being the most recent among those existing in the region; it does not have a fully integrated focus, because it stresses human consumption and irrigation. The need for updating this piece of legislation is also felt because there is new knowledge and new needs that should be incorporated. The priority however is not considered to be updating this law but rather improving its enforcement and inter-institutional coordination. Additionally, the Law on Watersheds, which establishes a special administrative regime, was approved in 2002 and the corresponding regulations are presently being drafted. It does not apply to the basin of the Panama Canal, because this area has a management plan (although lacking an integrated focus) and there is specific legislation creating the Panama Canal Authority and the Inter-Institutional Committee of the Panama Canal Basin. Other laws have a sectoral character such as those referring to potable water, irrigation, public health and hydro-electric generation.

Panama experienced for many years the presence of the United States in its territory, directing its main economic activity: the Canal. This prevented the development of strong institutions for water management as well as other important governmental roles. In the process to reverse this situation, the National Environmental Authority (Autoridad Nacional del Ambiente, ANAM) was established by law in 1998 with a mandate to lead water management. This responsibility, however, is restricted to the environmental aspects and there is no agency in charge with an integrated approach. The National Committee of the UNESCO sponsored International Hydrologic Programme, with participation of 11 public and 2 educational water related institutions, has gone beyond its initial goals and has become an active inter-institutional coordinating body. NGO's and the private sector are however absent.

To date, there is no formal water policy document available in this country, but one is expected to be prepared during 2004 as part of the National Environmental Plan, presently underway with IADB technical cooperation. This policy will spur the preparation of IWRM plans and water efficiency plans. This subsequent step could however be restrained by the poor inter-agency coordination, lack of financial

resources, and insufficient training and awareness; hydro-meteorological information, besides, is split among four different agencies lacking common goals or homogeneous criteria. National elections are programmed for May, 2004 and the new government will take charge in September; since that might involve new directions, the planning process should start at that point in time. Other requirements are a national policy, adequate financial support, an institution in charge and capacity building, especially regarding underground waters and watershed management.

3. Conclusion

Nowadays, IWRM principles are well known and accepted in Central America among public servants and academicians, but less so in NGO's and the civil society. The water agenda is now open to all sectors, coordinated action has gained impetus, extensive efforts are being made to improve the national legal frameworks, including institutional arrangements, and the economic value of water is starting to be recognized as well as the need for users to pay for it. A relevant example of this new vision and the decision to work together in that direction is the Regional Strategy for Water Resources (Estrategia Regional para los Recursos Hídricos), whose preparation was recently decided by the Ministers of Agriculture and Environment of the seven countries, incorporating IWRM principles and widely using the GWP's toolbox.

Initiatives of this sort are facilitated among these countries because the Central American Integration System (Sistema de la Integración Centroamericana, SICA) exists and is operational, as are its specialized bodies such as the Central American Commission on Environment and Development (Comisión Centroamericana de Ambiente y Desarrollo, CCAD) and the Consejo Agropecuario Centroamericano (Central American Agricultural Council, CAC); each of them is formed by the ministers of the sector. Moreover, the regional system has ensured that trans-boundary water issues are adequately considered, since some of the most important catchment areas are shared between two or even three countries.

Planning for water resource management is still incipient in Central America, much more so the preparation of plans with an integrated focus. Besides, the attempts made have had limited success, mostly because a meaningful participation of the private sectors and the civil society was lacking; sometimes, because donor agencies have imposed foreign consultants thus alienating the resulting plans from those who were expected to implement them. Overall, water is abundant in Central America, but not always, not everywhere. Besides, when and where there is water, it is not accessible to too many of its inhabitants, and pollution is an increasing problem made worse by the insufficient investment in sanitation. Not surprisingly, water issues are becoming more and more relevant for politicians, all sorts of interest groups and plain citizens alike.

Table 1: Summary analysis of country readiness for IWRM planning and implementation

Steps	COSTA RICA	EI SALVADOR	GUATEMALA
1. Raise awareness about IWRM and build political will to support the process	Awareness and political support have been rising for the past two years. A draft General Law on Water Resources is discussed in Parliament and a multi-stakeholder group leads the discussion, taking place throughout the country. The Ministry of the Environment was restructured to include a thematic area on water. Regulation charging for water pollution was approved. Another one recognizing the economic value of water is being prepared.	Expectations are high. The Ministry of the Environment created an Internal Committee on Water Issues expected to spur inter-agency coordination. It is also working with international donors to construct data base. The civil society has been active on two fronts: Opposition to water resource privatization and fostering inter-sectoral alliances to define the National Water Agenda.	Problems with water, such as scarcity and pollution, have in the last few years raised awareness in the public; but the government keeps a low profile and does not adopt concrete measures. Water resource management is spread among several public agencies with no common targets. National and local networks of the civil society (mostly interested in water supply and sanitation), e.g. Mesa Nacional del Agua, are active and some dialogue is taking place.
2. Ensure a framework for broad stakeholder participation	The above mentioned bill incorporates mechanisms for citizen participation. The discussion comprised 6 regional and 1 technical workshops that were open to all sectors of society. Their recommendations were adopted by Parliament.	The potential is good to promote participation of policy makers and various stakeholders in discussing concrete proposals.	The new administrative system established on 2002 (communities, local authorities, regions, nation) has opened space for civil society participation and seems very promising.
3. Overview of on going activities that the IWRM plan can build on	The bill organizes water management responsibilities around watershed boards, mandated to prepare watershed management plans, and under one leading agency that will prepare a National IWRM Plan. The Ministry of the Environment is preparing a national strategy.	The civil society, organized around the National Agenda and strengthened by international cooperation, has good potential to make a difference on the new government's proposals for programs and legislation.	Studies and general proposals being prepared by the Ministries of Agriculture and the Environment. Some watershed management activities are taken place in rural areas (initiatives of both the central and local governments).
4. Identify and prioritize WRM issues and challenges	IWRM and the principles of Dublin are conceived as the new paradigm for the sustainability of water. The priorities are: - National planning and watershed management; - Water budgets to control supply and demand; - Sanitation.	1) Getting to know water resources: - Water budget (surface & underground water) - Systematize experiences and lessons learned - Educate people on water problems and IWRM. 2) Preparing national water strategy and plan: - Demand management and regulation - Legislative framework - Institutional framework	- Lack of enabling environment; - Water rights & Conflict resolution; - Capacity building (public, private & social); - Low quality of water services; - Pollution.
5. Identify WRM functions	Discussion of the bill has become an actual educational process on IWRM for Costa Ricans.	Very limited knowledge of IWRM concept and practice by both public and private actors. There is a long way to go.	IWRM is mostly considered by consultants, public sector technicians and some NGO's like Mesa Nacional del Agua and Water Supply and Sanitation Network

Table 1 (continued): Summary analysis of country readiness for IWRM planning and implementation

Steps	COSTA RICA	EI SALVADOR	GUATEMALA
6. Identify management potential and constraints	<ul style="list-style-type: none"> - Water has been considered of low economic value and management has been underfunded; - Human resources are dispersed in many agencies; - System centralization. <p>The bill offers possibility of reversing this situations.</p>	Some public agencies recently strengthened and growing political will show good potential for positive developments. Still early to know the orientation of the new government.	<p>Potentials: Environmental legislation, public sector, file of water pollution, EIA's.</p> <p>Constraints: Lack of enabling environment, law enforcement and organization.</p>
7 Prepare strategies and plans for IWRM framework	The Ministry of the Environment has IADB funds for preparation of the national IWRM strategy and plan.	There is good potential based on existing national policy (little known), hydrologic information at regional level and pilot experiences at micro-basin level.	Initiatives are within the public sector but should be shared with ongoing civil society efforts.
8. Ensure adoption at the highest political level	The Council on Water was created in August 2002 by Presidential Decree, with participation of all public agencies relevant for water management.	There is good potential to use the above mentioned inputs and field experiences to prepare a national plan.	The new government as of January 2004 will have to deal with very difficult issues besides water, such as poverty affecting 60% of population and corruption.
9. Initiate capacity building	Training on IWRM and the ToolBox is underway for appropriate public servants.	<p>Enable the National Agenda to become the prime educational space on IWRM for key actors and general citizenry alike.</p> <p>Support government to ensure enforcement of present legislation.</p> <p>Facilitate consensus building between Government, Parliament and civil society to ensure an effective and agreed-upon sector reform.</p>	Once and again, efforts within the executive branch pay no results. Rural areas appear to have a better social capacity to manage water locally.
10 prepare portfolio implementation projects & financing strategy of plan	<ul style="list-style-type: none"> - Preparation of the national strategy by the Ministry of the Environment will start in January 2004. - The CR-USA Foundation focuses its funding towards IWRM projects. - The National Environmental Forum gave priority support to the bill and to IWRM projects. 	The generation of an inter-agency mechanism for water and the consolidation of the National Agenda ensure the participation of key stakeholders in proposal preparation.	None
Conclusion/recommendation	Both the political leadership and the Costa Rican society at large show a growing awareness about the urgent need to define and move towards IWRM.	Politics in El Salvador are at a critical time due to the ongoing electoral process. GWP along with other international and local organizations determine priorities regarding water management. This is the basis for building alliances with the government and other sectors to develop IWRM plans.	Water is not at the top of the citizen or government agendas; yet water problems are serious and complex. The issue is to gain a place in the mind, plans and actions of the public and private actors. The new government begins in January 2004, so political support for IWRM will probably be high.

Table 1 (continued): Summary analysis of country readiness for IWRM planning and implementation

Steps	HONDURAS	NICARAGUA	PANAMA
1. Raise awareness about IWRM and build political will to support the process	Citizen and political awareness seem to be slowly awakening as water related problems become more evident; this is specially true in Parliament, Presidential Commission for Modernizing the State and some NGO's (mostly focusing water supply and sanitation).	The official issuance of an IWRM policy and the preparation of a bill for the General Law of Water are indeed indications of the awareness in the high levels of government and the importance granted to this topic.	Local scarcity of water, a population with no access to potable water, floods, droughts and pollution are some the main problems and they are growing. This is raising the people's awareness and concern.
2. Ensure a framework for broad stakeholder participation	There is a long way to go regarding stakeholder participation.	Stakeholder participation is strongly stresses by the National Policy and has already been applied throughout the country. The draft General Law on Water also incorporates participatory the concept.	The Laws on the Environment and on Citizen Participation provide very good conditions for involvement of various stakeholders. This is new to this country and people are just learning how to do it effectively.
3. Overview of on going activities that the IWRM plan can build on	<ul style="list-style-type: none"> - Water Platform is doing important political work. - Strong impetus to decentralize. - Law on Potable Water and Sanitation was recently approved; new General Law on Water soon to be discussed. 	The National Water Resources Action Plan is a landmark policy and technical document; policy debates and the involvement of varied actors are other stimulating activities.	Two International Water Festivals in 01 and 03, a forum to seek solutions for water problems in the drier part of the country, workshops on governance, meetings of Basin Board managers and the Advisory Environmental Commissions (national, provincial and local) count among the recent significant activities.
4. Identify and prioritize WRM issues and challenges	<ul style="list-style-type: none"> - Spur inter-agency coordination. - Formulate policies and strategies. - Pass updated law, ensure enforcement. - Enable government to stand by its policies and resist foreign pressures. - Achieve participation of all relevant actors. 	33 priority actions were already identified by the National Water Resources Action Plan.	<ul style="list-style-type: none"> - Formulate a National Policy and prepare a Strategy. - Achieve an effective IWRM. - Complete 6th phase of the International Hydrologic Programme. - Issue regulations for Law on Watersheds and install Basin Boards.
5. Identify WRM functions	Water related functions are assigned to diverse agencies. The Ministries of Natural Resources and Agriculture overlap.	The Action Plan also identifies functions, especially those related to institutions, policy, law, economic instruments and information systems.	Institutional responsibilities are not well defined; when facing a situation, no agency may feel in charge or several do. The most acute problem relates to the Panama Canal Basin and occurs between the Canal Authority and the ad-hoc Inter-Institutional Committee.

Table 1 (continued): Summary analysis of country readiness for IWRM planning and implementation

Steps	HONDURAS	NICARAGUA	PANAMA
6. Identify management potential and constraints	Potential: Water is abundant, good will in Congress, over 4000 Water and Sanitation Community Boards are doing a good job. Constraints: Weak institutions, very scarce trained staff, turn over with every new government, centralized decision making.	The main constraints to implementing the Action Plan are the low organizational level and technical capabilities.	Potential: Educated populace, well trained technicians and a clear will to solve water problems among the political leadership. Constraints: Confusing institutional framework, poor communication and coordination among agencies and sectors.
7 Prepare strategies and plans for IWRM framework	There is basically no water resource management planning.	A Development Strategy for the Water Sector is presently being drafted, in close connection to the Action Plan.	Strategy and plan preparation for water management are to date quite incipient.
8. Ensure adoption at the highest political level	The President of Honduras has shown interest in water issues but the Ministry of Natural Resources is a weak agency.	The reforms to the State and especially the draft General Law on Water propose options for achieving more political participation by decision makers in IWRM.	Within the Panamanian political leadership, legislators are the most supportive. In fact, the recently approved Law on Watersheds originated among them.
9. Initiate capacity building	Training leaders and staff in all sectors is a huge task ahead, more cost/effective to do it in Honduras. More stability in jobs needed to maintain trained staff.	Also considered by the reforms of the State and the draft General Law on Water.	Priority training requirements comprise: System coordination, integrated management, basin management and underground water. Institutional strengthening should consist mainly in reinstalling the Basin Units that formerly existed in the relevant agencies.
10 prepare portfolio implementation projects & financing strategy of plan	International cooperation is mainly expected from CIDA, COSUDE, Spanish Cooperation, UNO, USAID.	This portfolio is presently being prepared by the office of the Vice-President.	Semi-Urban Aquifer Management Programme, Identification of Aquifers in Arco Seco, basin management projects under the National Desertification Programme, management of the Sixaola River Bi-National Basin.
Conclusion/recommendation		a) Nicaragua counts on instruments and basic organization for IWRM but still lacks some of the legal, technical and financial resources required to implement it. Integrated management needs to be further promoted among decision makers and at the basin level.	Panama is at this time in an excellent position to take advantage of its strengths and opportunities to start a decisive movement towards IWRM.

Steps	BELICE	NICARAGUA	PANAMA
1. Raise awareness about IWRM and build political will to support the process	The creation of a National Water Commission by Statutory Instrument is a clear indication of the awareness and political will that exist for the promotion of IWRM.	The official issuance of an IWRM policy and the preparation of a bill for the General Law of Water are indeed indications of the awareness in the high levels of government and the importance granted to this topic.	Local scarcity of water, a population with no access to potable water, floods, droughts and pollution are some of the main problems and they are growing. This is raising the people's awareness and concern.
2. Ensure a framework for broad stakeholder participation	The National Water Commission has multi-sectoral and multidisciplinary representation, including government, NGOs, Private Sector, academia, and community based organizations.	Stakeholder participation is strongly stressed by the National Policy and has already been applied throughout the country. The draft General Law on Water also incorporates participatory the concept.	The Laws on the Environment and on Citizen Participation provide very good conditions for involvement of various stakeholders. This is new to this country and people are just learning how to do it effectively.
3. Overview of on going activities that the IWRM plan can build on	The existence of a Draft National Water Policy developed with the assistance of FAO about 10 years ago. Existing national interest by key NGOs to push the water agenda. A momentum exists that should not be lost.	The National Water Resources Action Plan is a landmark policy and technical document; policy debates and the involvement of varied actors are other stimulating activities.	Two International Water Festivals in 01 and 03, a forum to seek solutions for water problems in the drier part of the country, workshops on governance, meetings of Basin Board managers and the Advisory Environmental Commissions (national, provincial and local) count among the recent significant activities.
4. Identify and prioritize WRM issues and challenges	<ul style="list-style-type: none"> - The formulation of a national policy, legislation and IWRM plan. - Need to specifically address watershed management, and in particular, transboundary watersheds - Need to improve the water culture and broaden the water constituency. 	33 priority actions were already identified by the National Water Resources Action Plan.	<ul style="list-style-type: none"> - Formulate a National Policy and prepare a Strategy. - Achieve an effective IWRM. - Complete 6th phase of the International Hydrologic Programme. - Issue regulations for Law on Watersheds and install Basin Boards.
5. Identify WRM functions	The institutional arrangements for IWRM need to be better structured to take on the multi-disciplinary nature of the task at hand. Legislative overlaps and frictions with industrial users will require skilled conflict resolution approaches.	The Action Plan also identifies functions, especially those related to institutions, policy, law, economic instruments and information systems.	Institutional responsibilities are not well defined; when facing a situation, no agency may feel in charge or several do. The most acute problem relates to the Panama Canal Basin and occurs between the Canal Authority and the ad-hoc Inter-Institutional Committee.

Steps	BELICE	NICARAGUA	PANAMA
6. Identify management potential and constraints	A Hydrology Department exists, but with very little capacity to do effective management. Legal, institutional, organizational and financial deficiencies exist.	The main constraints to implementing the Action Plan are the low organizational level and technical capabilities.	Potential: Educated populace, well trained technicians and a clear will to solve water problems among the political leadership. Constraints: Confusing institutional framework, poor communication and coordination among agencies and sectors.
7 Prepare strategies and plans for IWRM framework	The newly formed National Water Commission has the specific responsibility to oversee the dev. Of policy and IWRM plan.	A Development Strategy for the Water Sector is presently being drafted, in close connection to the Action Plan.	Strategy and plan preparation for water management are to date quite incipient.
8. Ensure adoption at the highest political level	The legally established commission already has political support and a political mandate to dev. Policy and plan. The following step is water legislation to be adopted by House of Representatives.	The reforms to the State and especially the draft General Law on Water propose options for achieving more political participation by decision makers in IWRM.	Within the Panamanian political leadership, legislators are the most supportive. In fact, the recently approved Law on Watersheds originated among them.
9. Initiate capacity building	A host of training courses are required in Watershed Management, Groundwater, IWRM, Economic Instruments. Institutional capacity needs to be built and given legal autonomy.	Also considered by the reforms of the State and the draft General Law on Water.	Priority training requirements comprise: System coordination, integrated management, basin management and underground water. Institutional strengthening should consist mainly in reinstalling the Basin Units that formerly existed in the relevant agencies.
10 prepare portfolio implementation projects & financing strategy of plan	Management of Transboundary Watersheds between Belize and Guatemala, and with Mexico; Development of a groundwater and Wells Registry; Process for the Development of Policy and Plan to start immediately.	This portfolio is presently being prepared by the office of the Vice-President.	Semi-Urban Aquifer Management Programme, Identification of Aquifers in Arco Seco, basin management projects under the National Desertification Programme, management of the Sixaola River Bi-National Basin.
Conclusion/recommendation	Belize stands ready to actively pursue the promotion and establishment of IWRM policies and plan, followed by the necessary legal instrumentation necessary for effective governance.	b) Nicaragua counts on instruments and basic organization for IWRM but still lacks some of the legal, technical and financial resources required to implement it. Integrated management needs to be further promoted among decision makers and at the basin level.	Panama is at this time in an excellent position to take advantage of its strengths and opportunities to start a decisive movement towards IWRM.

Table 2: Categorization of countries according to assistance requirements to meet the target of 2005 on IWRM national plans

Country	Category	Justification
Belize	B	Although there has been no national discussion on the topic, Belizeans are very prone to innovation and therefore to embark in preparing an IWRM Plan. It should be closely linked to the National Water Policy that has been drafted for the past several months. National authorities have fully agreed to receive support for this process. Besides, the National Water Commission was established by Ministerial Decree with a specific responsibility to guide and oversee the preparation of the IWRM National Plan and Policies.
Costa Rica	A	The process is underway since preparation of the National Water Strategy (with IADB funding) will start in early 2004 and will culminate with an IWRM Plan for which financing is required..
El Salvador	B/C	Conditions are favorable because interest in IWRM is rapidly growing in rural areas and among the very well organized NGO's. The international organizations are supportive, but the government has not shown the decision to prepare the Plan. The outcome is therefore uncertain.
Guatemala	C	The present political situation makes it difficult to achieve the target. The institutional framework is not suitable. Due to previous experiences, there is little interest from international organizations to support this country.
Honduras	B	There are favorable political and institutional conditions and interest of the World Bank to support this country. Great momentum from the Water Platform to start preparing a guide on IWRM Plans. An important effort in terms of capacity building and gathering of reliable information is required.
Nicaragua	A	There is a Water Resources National Management Plan that needs to be updated. Besides, a national commitment to implement the plan is required. Capacity building must be pursued at the national level.
Panamá	B	Panama will start in 2004 preparing a national strategy, with IADB financial support, that is meant to develop later into a national IWRM plan. There is political will but strengthening the institutional framework and more capacity building are required.

Category A: Country likely to meet the target of 2005 on IWRM national plans

Category B: Country needs some support to meet the targets

Category C: Country needs substantial support to meet the targets

APPENDIX 1

BELICE

Temas	No	Sí	Punteo 1 a 5
1. Sistema de otorgamiento de derechos de uso (1)			
1.1 Sistema de derechos de uso funcionando	X		
1.1.1 Catastro Hídrico	X		
1.1.2 Registro de Derechos		x	1
2. Sistema de valoración del agua (2)			
2.1 Tarifas por servicios ambientales (producción)		X	1
2.2 Tarifas por usos del agua (agua potable)	X	x	2
2.3 Tarifas por disponer residuos en las aguas, uso directo		X	2
2.4 Tarifas para recuperar la calidad del recurso, uso indirecto		X	1
3. Medidas de prevención ante eventos extraordinarios (3)			
3.1 Protección vida		x	1
3.2 Protección infraestructura económica y social		X	2
4. Sistema de Conservación del Recurso (4)			
4.1 Abundamiento		X	3
4.2 Control de contaminación		X	1
4.3 Recuperación de la calidad del recurso		X	1
5. Mecanismos de Resolución de Conflictos definidos		X	2
6. Administración del Agua (1)		X	2
6.1 Administración Nacional (objetivos y metas nacionales) (9)			
6.2 Planificación/presupuesto acciones sub sectoriales nacionales		X	1
6.3 Mecanismos de descentralización definidos		X	2
6.3.1 Gobiernos locales participan		X	2
6.3.2 Participación de los usuarios		X	1
6.3.3 Participación del público		X	3
6.4 Mecanismos de delegación de funciones	X		
6.5 Organismos de cuenca definidos (5)		X	2
6.5.1 Toman decisiones	X		
6.5.2 Aplican el sistema de derechos y obligaciones		X	2
6.5.3 Recaudan/disponen recursos económicos y financieros		X	1
6.5.4 Conocen infracciones e imponen sanciones		X	1
Total			34

PUNTAJE DE:

De 0 a 50, Deficiente

De 51 a 100, Razonable

De 101 a 150, Bueno

COSTA RICA

Temas	No	Sí	Punteo 1 a 5
1. Sistema de otorgamiento de derechos de uso (3)		X	3
1.1 Sistema de derechos de uso funcionando		X	3
1.1.1 Catastro Hídrico		X	3
1.1.2 Registro de Derechos		X	3
2. Sistema de valoración del agua (3)		X	3
2.1 Tarifas por servicios ambientales (producción)		X	3
2.2 Tarifas por usos del agua		X	1
2.3 Tarifas por disponer residuos en las aguas, uso directo		X	3
2.4 Tarifas para recuperar la calidad del recurso, uso indirecto	X		
3. Medidas de prevención ante eventos extraordinarios		X	2
3.1 Protección vida		X	2 cne
3.2 Protección infraestructura económica y social		X	2 cne
4. Sistema de Conservación del Recurso (3)		X	3
4.1 Abundamiento		X	3
4.2 Control de contaminación		X	2
4.3 Recuperación de la calidad del recurso		X	1
5. Mecanismos de Resolución de Conflictos definidos (3)		X	3
6. Administración del Agua		X	3
6.1 Administración Nacional (objetivos y metas nacionales)		X	
6.2 Planificación/presupuesto acciones sub sectoriales nacionales		X	4
6.3 Mecanismos de descentralización definidos		X	1
6.3.1 Gobiernos locales participan		X	3
6.3.2 Participación de los usuarios		X	2
6.3.3 Participación del público		X	2
6.4 Mecanismos de delegación de funciones	X		
6.5 Organismos de cuenca definidos (2)		X	2
6.5.1 Toman decisiones		X	2
6.5.2 Aplican el sistema de derechos y obligaciones		X	3
6.5.3 Recaudan/disponen recursos económicos y financieros	X		
6.5.4 Conocen infracciones e imponen sanciones	X		
Total			61

PUNTAJE DE:

De 0 a 50, Deficiente

De 51 a 100, Razonable

De 101 a 150, Bueno

EL SALVADOR

Temas	No	Sí	Punteo 1 a 5
1. Sistema de otorgamiento de derechos de uso	X		
1.1 Sistema de derechos de uso funcionando		X	1
1.1.1 Catastro Hídrico	X		
1.1.2 Registro de Derechos	X		
2. Sistema de valoración del agua			
2.1 Tarifas por servicios ambientales (producción)	X		
2.2 Tarifas por usos del agua		X	2
2.3 Tarifas por disponer residuos en las aguas, uso directo	X		
2.4 Tarifas para recuperar la calidad del recurso, uso indirecto	X		
3. Medidas de prevención ante eventos extraordinarios			
3.1 Protección vida	X		
3.2 Protección infraestructura económica y social	X		
4. Sistema de Conservación del Recurso			
4.1 Abundamiento	X		
4.2 Control de contaminación	X		
4.3 Recuperación de la calidad del recurso	X		
5. Mecanismos de Resolución de Conflictos definidos	X		
6. Administración del Agua		X	2
6.1 Administración Nacional (objetivos y metas nacionales)		X	1
6.2 Planificación/presupuesto acciones sub sectoriales nacionales	X		
6.3 Mecanismos de descentralización definidos		X	2
6.3.1 Gobiernos locales participan		X	2
6.3.2 Participación de los usuarios		X	2
6.3.3 Participación del público	X		
6.4 Mecanismos de delegación de funciones		X	2
6.5 Organismos de cuenca definidos	X		
6.5.1 Toman decisiones	X		
6.5.2 Aplican el sistema de derechos y obligaciones	X		
6.5.3 Recaudan/disponen recursos económicos y financieros	X		
6.5.4 Conocen infracciones e imponen sanciones	X		
Total			14

PUNTAJE DE:

De 0 a 50, Deficiente

De 51 a 100, Razonable

De 101 a 150, Bueno

GUATEMALA

Temas	No	Sí	Punteo 1 a 5
1. Sistema de otorgamiento de derechos de uso			
1.1 Sistema de derechos de uso funcionando	X		
1.1.1 Catastro Hídricos	X		
1.1.2 Registro de Derechos		X	2
2. Sistema de valoración del agua			
2.1 Tarifas por servicios ambientales (producción)	X		
2.2 Tarifas por usos del agua		X	1
2.3 Tarifas por disponer residuos en las aguas, uso directo	X		
2.4 Tarifas para recuperar la calidad del recurso, uso indirecto	X		
3. Medidas de prevención ante eventos extraordinarios		X	1
3.1 Protección vida	X		
3.2 Protección infraestructura económica y social	X		
4. Sistema de Conservación del Recurso			
4.1 Abundamiento	X		
4.2 Control de contaminación		X	1
4.3 Recuperación de la calidad del recurso	X		
5. Mecanismos de Resolución de Conflictos definidos		X	1
6. Administración del Agua	X		
6.1 Administración Nacional (objetivos y metas nacionales)	X		
6.2 Planificación/presupuesto acciones sub sectoriales nacionales		X	2
6.3 Mecanismos de descentralización definidos		X	2
6.3.1 Gobiernos locales participan		X	2
6.3.2 Participación de los usuarios		X	1
6.3.3 Participación del público		X	1
6.4 Mecanismos de delegación de funciones		X	2
6.5 Organismos de cuenca definidos	X		1
6.5.1 Toman decisiones	X		
6.5.2 Aplican el sistema de derechos y obligaciones	X		
6.5.3 Recaudan/disponen recursos económicos y financieros	X		
6.5.4 Conocen infracciones e imponen sanciones	X		
Total			17

PUNTAJE DE:

De 0 a 50, Deficiente

De 51 a 100, Razonable

De 101 a 150, Bueno

HONDURAS

Temas	No	Sí	Punteo 1 a 5
1. Sistema de otorgamiento de derechos de uso			
1.1 Sistema de derechos de uso funcionando		X	1
1.1.1 Catastro Hídrico		X	1
1.1.2 Registro de Derechos		X	1
2. Sistema de valoración del agua			
2.1 Tarifas por servicios ambientales (producción)		X	1
2.2 Tarifas por usos del agua		X	2
2.3 Tarifas por disponer residuos en las aguas, uso directo	X		
2.4 Tarifas para recuperar la calidad del recurso, uso indirecto		X	1
3. Medidas de prevención ante eventos extraordinarios			
3.1 Protección vida		X	3
3.2 Protección infraestructura económica y social		X	2
4. Sistema de Conservación del Recurso			
4.1 Abundamiento		X	3
4.2 Control de contaminación		X	3
4.3 Recuperación de la calidad del recurso		X	3
5. Mecanismos de Resolución de Conflictos definidos		X	4
6. Administración del Agua			
6.1 Administración Nacional (objetivos y metas nacionales)		X	3
6.2 Planificación/presupuesto acciones sub sectoriales nacionales		X	3
6.3 Mecanismos de descentralización definidos	X		
6.3.1 Gobiernos locales participan		X	4
6.3.2 Participación de los usuarios		X	3
6.3.3 Participación del público		X	2
6.4 Mecanismos de delegación de funciones		X	4
6.5 Organismos de cuenca definidos			
6.5.1 Toman decisiones	X		
6.5.2 Aplican el sistema de derechos y obligaciones	X		
6.5.3 Recaudan/disponen recursos económicos y financieros	X		
6.5.4 Conocen infracciones e imponen sanciones	X		
Total			44

PUNTAJE DE:

De 0 a 50, Deficiente

De 51 a 100, Razonable

De 101 a 150, Bueno

NICARAGUA

Temas	No	Sí	Punteo 1 a 5
1. Sistema de otorgamiento de derechos de uso			
1.1 Sistema de derechos de uso funcionando	X		
1.1.1 Catastro Hídricos		X	3
1.1.2 Registro de Derechos	X		
2. Sistema de valoración del agua			
2.1 Tarifas por servicios ambientales (producción)	X		
2.2 Tarifas por usos del agua	X		
2.3 Tarifas por disponer residuos en las aguas, uso directo	X		
2.4 Tarifas para recuperar la calidad del recurso, uso indirecto	X		
3. Medidas de prevención ante eventos extraordinarios			
3.1 Protección vida		X	4
3.2 Protección infraestructura económica y social		X	4
4. Sistema de Conservación del Recurso			
4.1 Abundamiento	X		
4.2 Control de contaminación		X	3
4.3 Recuperación de la calidad del recurso		X	2
5. Mecanismos de Resolución de Conflictos definidos	X		
6. Administración del Agua			
6.1 Administración Nacional (objetivos y metas nacionales)		X	3
6.2 Planificación/presupuesto acciones sub sectoriales nacionales		X	3
6.3 Mecanismos de descentralización definidos			
6.3.1 Gobiernos locales participan		X	2
6.3.2 Participación de los usuarios		X	1
6.3.3 Participación del público		X	1
6.4 Mecanismos de delegación de funciones		X	2
6.5 Organismos de cuenca definidos		X	1
6.5.1 Toman decisiones		X	1
6.5.2 Aplican el sistema de derechos y obligaciones	X		
6.5.3 Recaudan/disponen recursos económicos y financieros	X		
6.5.4 Conocen infracciones e imponen sanciones	X		
Total			30

PUNTAJE DE:

De 0 a 50, Deficiente

De 51 a 100, Razonable

De 101 a 150, Bueno

PANAMA

Temas	No	Sí	Punteo 1 a 5
1. Sistema de otorgamiento de derechos de uso			3
1.1 Sistema de derechos de uso funcionando		X	3
1.1.1 Catastro Hídrico	X		2
1.1.2 Registro de Derechos		X	5
2. Sistema de valoración del agua			1
2.1 Tarifas por servicios ambientales (producción)	X		0
2.2 Tarifas por usos del agua			3
2.3 Tarifas por disponer residuos en las aguas, uso directo			2
2.4 Tarifas para recuperar la calidad del recurso, uso indirecto			0
3. Medidas de prevención ante eventos extraordinarios			3
3.1 Protección vida		X	3
3.2 Protección infraestructura económica y social		X	3
4. Sistema de Conservación del Recurso			3
4.1 Abundamiento		X	3
4.2 Control de contaminación		X	3
4.3 Recuperación de la calidad del recurso		X	3
5. Mecanismos de Resolución de Conflictos definidos		X	4
6. Administración del Agua		X	1
6.1 Administración Nacional (objetivos y metas nacionales)		X	4
6.2 Planificación/presupuesto acciones sub sectoriales nacionales		X	3
6.3 Mecanismos de descentralización definidos		X	2
6.3.1 Gobiernos locales participan		X	1
6.3.2 Participación de los usuarios		X	1
6.3.3 Participación del público		X	1
6.4 Mecanismos de delegación de funciones		X	2
6.5 Organismos de cuenca definidos			1
6.5.1 Toman decisiones /Recomiendan y Coordinan	X		1
6.5.2 Aplican el sistema de derechos y obligaciones	X		0
6.5.3 Recaudan/disponen recursos económicos y financieros	X		0
6.5.4 Conocen infracciones e imponen sanciones	X		0
Total			62

PUNTAJE DE:

De 0 a 50, Deficiente

De 51 a 100, Razonable

De 101 a 150, Bueno