







Mapping of Integrity and Accountability in Water Resources Management and Relevant Capacities in Latin America

Damian Indij y Michael Hantke Domas

Report commissioned by UNDP Water Governance Facility at SIWI, WaterNet and Cap-Net'

Introduction

This report is in response to a request from Cap-Net/UNDP and UNDP's Water Governance Facility at SIWI. It aims to strengthen integrity and transparency in the Latin American water sector by producing a regional mapping report, assembling a team of specialists, and designing a capacity development plan to be implemented during the second semester of 2013 and henceforth.

The report is a joint proposal of LA-WETnet, the Latin American Water Education and Training Network; the national member networks – ArgCap-net (Argentina), Cap-Net Brazil, REDICA (Central America); REMERH (Mexico) –; and the following LA-WETnet member institutions: Universidad Externado (Colombia), Cultura Ambiental (Uruguay), Vitalis (Venezuela) and the Centro Bartolomé de Casas (Peru). Our special thanks go to Maria Jacobson at SIWI and to Kees Leendertse at Cap-Net for their permanent support in preparing this report, from identification of the methodology and selection of cases to their participation in the workshop held in Bogota.

Damian Indij, LA-WETnet Coordinator, July 2013

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Executive Summary

The overall objective of this report is to support a capacity development programme for water integrity and transparency in Latin America. A mapping study and a brief assessment of the processes associated with integrity, transparency, responsibility and accountability in the water sector, as well as identification of potential partners, will serve as a starting point.

The regional report was prepared by a team of authors who focused on national case studies from eight countries in the region: Argentina, Brazil, Colombia, Costa Rica, Mexico, Peru, Uruguay and Venezuela. National cases include not only a description of how integrity, responsibility, accountability and transparency are being promoted among all other relevant water sector components but also an approach to related sectors and other organisations concerned with issues of integrity and transparency.

Both the cases and this regional report are based on the identification of available skills and ongoing process towards integrity and transparency. This forms part of a strategy to offer entry points for capacity development in these key areas at the regional level. In many countries of the region the water sector is characterised by state interventions – if any. That is, each agency has its own vision and special characteristics, which result in a lack of institutional coordination. On the other hand, there are countries that have regulated the water sector efficiently but have failed at the implementation stage. Hence, the institutional quality of water management is relatively low.

To a greater or lesser extent, the countries of the region have gradually incorporated international integrity promotion instruments but, contrary to what could be expected, corruption perception levels are inversely proportional to that effort.

The case studies presented in this report show low levels of problem awareness in countries where, with few exceptions, the water sector is not particularly prominent in the fight against corruption.

Based on the above, it follows that it is necessary to raise awareness among all social levels of the need to fight corruption in the water sector. This involves building awareness among decision-makers (public policy agencies as well as regulatory agencies) through advocacy for water integrity and training. This opportunity should be extended to other pertinent groups such as private and public companies, consumer groups, non-governmental organisations engaged in integrity promotion, etc. The same applies to multilateral organisations involved in the water sector through funding (IDB, WB and LADB); if these agencies can adopt uniform integrity promotion and corruption prevention mechanisms, it will mean that an additional regulatory and political framework, besides the corruption control strategy, is in place.

The awareness raising process should end in the adoption of public commitments in management instruments, such as the acknowledgment of guiding principles in national water policies, integrity pacts, etc.

The fight against corruption must be extended to other sectors such as drinking water and sanitation, hydropower, irrigation and

environmental management. They all exert different impacts on water use and they are all equally prone to a lack of integrity. Private companies must be involved in this effort since corruption leads to additional costs that lower their competitiveness (provided they wish to be competitive and that corruption does not bring them greater benefits).

The countries of the region are adopting international anticorruption instruments. Most of them have introduced good governance standards (transparency, participation, accountability and access to justice) and integrated water resources management as a management model. Nevertheless, levels of implementation differ and in some countries the introduction of integrity instruments is shown to be only present at the level of speech, but not really at the level of formal application. This is extremely harmful because it turns the fight against corruption into a speech devoid of any real impact, and people seeking to eradicate the scourge of corruption tend to lose interest. Hence, it is crucial not only to participate in the promotion and adoption of anti-corruption policies but also to devise follow-up mechanisms for implementation processes, such as audits and institutional benchmarking.

If the case studies are considered as a more or less representative sample of the situation in Latin America, it may be concluded that the region is a fertile ground for promoting integrity in the water sector, not only as an ethical position but also as a tool to improve water use management at local, national and regional levels.

In order to optimise the opportunities identified in the eight case studies, it is essential to support strong capacity development processes, including public policies and standards.

Capacity development calls for:

- 1. Promoting training in integrated water resources management, including the integrity dimension at all levels and sectors since IWRM provides a window of opportunity for water governance and integrity in the region.
- 2. Working with unions, non-governmental organisations and universities so as to develop their own capacities for corruption control and for rendering public officials accountable when they stray away from the ethics of integrity.
- 3. Training the Judiciary and special units in felonies related to corruption in the water sector.
- 4. Gathering the largest number of national water-related sectors to develop a shared vision of which of the measures recommended here (and other measures) must be urgently adopted. This will make it possible to prioritise integrity actions according to each national reality.

Objective

The overall objective of this report is to support a capacity development programme on water integrity in Latin America. A mapping study and a brief assessment of the processes associated with integrity, transparency, responsibility and accountability in

the water sector, as well as an identification of potential partners, will serve as a point of entry into the subject.

Methodology

The regional report was prepared by a team of authors who wrote case studies from eight countries of the region:

- 1. Argentina: Armando Llop
- 2. Brazil: Daniela Nogueira
- 3. Colombia: Pilar García
- 4. Costa Rica: Liliana Arrieta
- 5. Mexico: Alejandro Tonatiuh Romero Contreras, Marta García Galván, Carlos Díaz Delgado
- 6. Peru: Mourik Bueno de Mezquita
- 7. Uruguay: Gabriela Pignataro
- 8. Venezuela: Diego Díaz Martin

Preparing this regional report within the framework of LA-WETnet was the strategy chosen to facilitate local ownership, demand response capacity, access to and use of local knowledge and identification of stakeholders and institutions that should be part of a capacity development plan in the region.

The eight countries included in the regional report were selected on the basis of: i) interest expressed by LA-WETnet members to participate in this undertaking; ii) balanced representation and regional coverage of Latin America; iii) subject relevance and ability to replicate a leading capacity development process.

Countries:

- Argentina, Brazil and Mexico, the largest countries with national capacity development networks: ArgCap-Net, Cap-Net Brazil, and REMERH.
- Costa Rica, in Central America, where REDICA's Secretariat is based, is a highly developed country in Latin America in terms of democratic practices and environmental protection. Costa Rica's experience can be shared with the whole region and used as a learning tool.
- *Uruguay*, the smallest country in the Southern Cone, is an interesting case. In 2004, 64 per cent of the Uruguayan population voted in favor of considering access to water as a human right and of keeping water supply in public areas in a referendum that was unique in its kind in the region.
- Peru and Colombia, the Andean countries where LA-WETnet members in Peru (Centro Bartolomé de las Casas) and Colombia (Universidad Externado) are deeply involved in capacity development for IWRM, including water integrity issues and a human rights approach.
- Venezuela, a country where political reforms that brought about greater centralisation have led to an interesting water governance structure. However, there are water laws and institutions that have pending matters (such as regulations) and that contradict the tendency towards centralisation.

As part of the development of this report, a work meeting was held on May 15-17, 2013 at the *Universidad Externado* in Colombia, with the aim to:

- Outline the progress achieved in the eight national case studies
- Share experiences related to water integrity processes and projects
- Identify target groups, core issues and potential partners for a water integrity action plan in Latin America
- Revise the Training Manual on Water Integrity developed by Cap-Net, SIWI, WIN and WaterNet, and identifying aspects that should be adapted for greater relevance in Latin America
- Design a regional capacity development plan on water integrity in Latin America.

Approach

National case studies describe how integrity, responsibility, accountability, and transparency are being promoted among all relevant water sector components, such as infrastructure projects, procurement and acquisitions, water supply and sanitation, water management, river basin organisations and other pertinent areas. The case studies also approach sector organisations as well as other institutions not directly perceived as water-related organisations but which are actively involved in integrity and transparency issues.

The case studies as well as this regional report are based on a positive-opportunity approach that aims at identifying entry points for capacity development in order to promote integrity and transparency in water management. The report does not purport or attempt to reveal corrupt areas, practices or levels, but rather to describe the regional scenario and highlight favorable aspects, institutions, mechanisms and stakeholders capable of contributing to greater transparency.

1. Framework for Water Integrity in Latin America

National case studies describe how integrity, responsibility, accountability, and transparency are being promoted among all relevant water sector components, such as infrastructure projects, procurement and acquisitions, water supply and sanitation, water management, river basin organisations and other pertinent areas. The case studies also approach sector organisations as well as other institutions not directly perceived as water-related organisations but which are actively involved in integrity and transparency issues. The case studies as well as this regional report are based on a positive-opportunity approach that aims at identifying entry points for capacity development in order to promote integrity and transparency in water management. The report does not purport or attempt to reveal corrupt areas, practices or levels, but rather to describe the regional scenario and highlight favorable aspects, institutions, mechanisms and stakeholders capable of contributing to greater transparency.

1. Framework for water integrity in Latin America

The perception of a general lack of integrity in Latin America and the Caribbean has been a historical constant. According to Transparency International (2008), of a sample of 32 countries in the region "22 had index scores below 5 out of a total of 10, which suggests a serious corruption problem, while 11 countries did not score higher than 3 points, suggesting rampant levels of corruption". Even so, this is not a characteristic unique to countries in the region, but rather a worldwide trend. For the Global Corruption Barometer (2010), developed by Transparency International, global corruption perception is higher: almost six out of ten respondents feel that corruption has been growing, especially in North America and Europe.

Which is the cause of this increasing lack of integrity? Has it really increased or is it just more visible today due to tighter social control? Notwithstanding the answers to these questions, figures point to alarming levels of practices that directly affect governance in societies where this type of conduct is widespread. This in turn leads to the decline of institutions and disinterest on the part of the community.

In addition to being ethically and morally reprehensible, corruption affects the development of countries. On the one hand, it corrodes democracy and governance by straying away from legitimate procedures; it undermines representativeness when it is part of election processes and diminishes accountability; it undermines the rule of law when the Judiciary is involved; and it robs people of their access to the right to a decent life. This is so because the national or municipal public sector does not render services on an equal footing as corrupt public officials divert public money for private gain.

Concrete cases of corruption are found in the water resources sector. In almost all Latin American countries water is managed by the public sector, either as a resource –water in its natural state flowing in river beds – or as a service –drinking water and

sanitation. Thus, when water sector officials abuse their authority for their own personal benefit, people are deprived of water and sanitation services.

Lack of integrity in the water sector is an extremely serious problem. Misappropriation of funds and property prevents the state from complying with its obligation to ensure the human right to water. Funds used for the benefit of public officials (and, in many cases, for the benefit of their private counterparts) also prevent the state from rendering drinking water and sanitation services. This type of practice hits the poor the hardest.

Corruption in the water sector also affects the environment. Protection and conservation of drainage basins and water production areas is not complied with, control of environmental degradation and penalties for environmental offences are less effective and excessive or illegal water withdrawals have an adverse impact on water quantity and quality. When these problems must be rectified with government funding, availability of economic resources for other social investments is reduced.

The scourge of corruption in the water sector also threatens food security. For instance, investments in irrigation are subject to practices that lack integrity. Estimates show that between 20 and 40 per cent of the costs are lost to corruption. Integrity is especially lacking in areas such as water distribution, irrigation management,

Is the water sector more prone to corruption than other sectors?

Some of the characteristics of the water sector, especially in the developing world, are shared by public services in general. The following are some of the characteristics that render the water sector more prone to corruption:

- Complex institutional actors with different service levels, geographic scale and decision-making power; complex legal and institutional rating that varies among countries, states, basins, municipal corporations, and even among poor neighborhoods;
- These institutions, with their intersecting lines of authority, either have low institutional capacity or are dysfunctional organisations with low-paid employees managing large infrastructure investments and large-scale purchases;
- In most countries, water management is seen as a technical problem rather than as a governance issue;
- The water sector is closely associated with the construction sector, which is considered to be extremely corrupt;
- When compared to other public services, the water industry is capital-intensive. Large hydraulic projects are complex and difficult to standardise; and fraudulent purchases for infrastructure works are difficult to detect;
- Private investments in the water sector are picking up in countries with high risk of corruption, a fact that poses special challenges to international investors; Informal suppliers, who play a key role in water supply to the poor, often operate in a legal grey zone and tend to be vulnerable to extortion and bribery.

groundwater management, land and water acquisitions, and food aid and distribution (Aarnoudse and Belalia, 2012).

The water sector is also affected by climate change. Global warming accelerates the global water cycle leading to intense rainfall (floods) and water shortages (droughts). These events cause loss of human and animal lives as well as economic damage. Adaptation and mitigation strategies promoted in response to climate change involve, in many cases, large investments in grey infrastructure – the traditional cement works (for instance, reservoirs, river protections, etc.). It is precisely this type of investments that are vulnerable to corruption.

IWRM, on the other hand, seeks to promote efficient solutions such as green infrastructure projects. Green infrastructure is defined as "an interconnected network of open space that conserves natural ecosystem values and functions and provides associated benefits to human populations" (Benedict and McMahon, 2002). For example, rather than being geared by the volume of investments, IWRM is geared by human, environmental and social benefits, which reduces but does not eliminate the risk of corruption.

Corruption in the Latin American water sector has not been measured, but extrapolation of aggregate corruption perception indexes in the region shows that corruption pervades the water sector as well.

Annex 1 is a catalogue of corrupt practices in the water sector. As can be observed, opportunities for growing corruption in the water sector and subsectors are broad. With several exceptions, these practices are likely to occur in many Latin American countries with high corruption indexes.

1.1 Water governance: trends and patterns in Latin America

The report by the UNDP Virtual School and Universidad de los Andes entitled "Impact of Accountability on Water Governance and Management, Regional Analysis of Four Case Studies in Latin America" (UNDP, 2013) is based on an analysis of institutional experiences and regulations of the last two decades. The report shows that Latin America has a hybrid governance system characterised by the coexistence of multiple institutional forms:

- 1. Public and decentralised water management as an alternative to the state's centralised and highly bureaucratic model.
- 2. Privatisation of water resources and of water service delivery, characterised by new institutional regulations advocating a minimal state, adoption of market logics in the distribution of property rights and water management, and a redefinition of the relationship between the market and the civil society.
- 3. Emergence of water "self-management" forms, rise of social movements against water privatisation and in favor of decentralised management models.

The Latin American water management and hybrid governance model shows that: a) there co-exist different viewpoints on and approaches to the right of access to water and water services (a public good, a human right, a merchandise and a public service); b) there co-exist a set of rules and regulations that define different institutional water management models that contain latent conflicts as well as formal and informal coordination and decision-making spaces through the use of different instruments; and c) the multiple state model, i.e. private and social actors involved in water-related decision-making, has been acknowledged.

The characterisation of this hybrid model mentioned in the UNDP report (2013) is also described in the summaries of the following eight national case studies on water integrity.

2. Mapping Integrity in the Latin American Water Sector: A Review of National Case studies

2.1 Water governance in Argentina

Given the fact that Argentina is a federal country where the provinces have full jurisdiction over water resources management, each province has its own water regulations and administration. Use of interprovincial waters must be handled through agreements entered into between the provinces involved with the participation of the federal government. In the case of international rivers, the Nation must first concur with the provinces on the nature of the agreements to be entered into, and then negotiate with the countries involved. According to the National Constitution (CN) of 1994, it is the Nation that establishes the minimum standards for environmental management, including water resources.

Argentina has made very good progress in the adoption of rules and regulations on water integrity following the guidelines laid down by the Organization of American States (OAS) and the United Nations (UN). The main laws and regulations enacted are: 1) Law ratifying the agreement reached at the Inter-American Anti-Corruption Convention of the OAS (No. 24759, 12-4-1996); 2) Ley de Ética de la Función Pública (Civil Service Ethics Act) (No. 25188, 9-29-1999); 3) Ley del Régimen Jurídico Básico de la Función Pública (Basic Civil Service Code for Staff in the Central Public Administration) (No. 22140); 4) Law creating the Anti-Corruption Office (No. 25233, 12-10-1999); 5) Law approving the United Nations Convention against Corruption (UNCAC) (No. 26097, 05-10-2006); 6) Law approving the International Treaty against Transnational Bribery (No. 25319); 7) Laws of Minimum Standards For Environmental Protection (Art. 41 CN); and 8) Law creating the Sindicatura General de la Nación (SIGEN) (Office of the Comptroller General) and Auditoría General de la Nación (AGN) (National General Auditing Office) (No. 24156 of 1992).

However, most of the provinces have not adhered to these laws and lack an Anti-Corruption Office and agencies such as the Office of the Comptroller General (SIGEN) or the National General Auditing Office (AGN). Most rules and regulations on integrity focus on the individual, leaving a considerable gap as regards collegiate bodies or certain associations with economic and political power involved in illicit activities. In terms of laws, institutions and organisational culture, much remains to be done. The systems in the provinces are more lax and provinces only have agencies such as the Fiscalía de Estado (State Prosecutor's Office) and the Contaduría General (General Accounting Office).

2.1.1 Water management reforms and IWRM

One of the most remarkable achievements in terms of national water policy, early in the last decade, was the adoption, with the consent of all the provinces, of "Guiding Water Policy Principles", which include the concept of accountability of major water operators in the country.

The setting up of the Consejo Hídrico Federal (COHIFE) (Federal Water Council) in December 2002, enacted by National Law No. 26438 of January 5, 2009, was an important step forward in transparency, participation and accountability, especially horizontal accountability.

During the last decade the national government has taken steps to increase investments in water infrastructure and repair and to extend the hydro-meteorological measurement network devastated in the 1990s.

Mention should be made of the role of Integrated Water Resources Management (IWRM) in water management in Argentina. This concept, which has practically permeated all institutions in the water sector, became the basis of Guiding Principle No. 27 of the Water Policy. The problem is that much is said but little is done in terms of effective IWRM implementation.

The Federal Water Resources National Plan (PNFRH), a joint effort undertaken in November 2006 by COHIFE and the Water Resources Under-Secretariat (SSRH), does not tackle the issue of integrity.

2.1.2 Mapping of organisations and stakeholders

At the national level, the agency responsible for mapping organisations and stakeholders is the **Water Resources Secretary** of the Ministry of Federal Planning, Public Investments and Services. The functions of the Secretary include: support to the provinces, management of funds from international sources for water supply, sanitation (ENOHSA) and irrigation (PROSAP) projects, and water sector investments.

There are multiple interjurisdictional agencies, such as River Basin Committees, that are structured through legal agreements between the provinces involved. The more recent *Agencia de Planificación* (APLA – Planning Agency), the result of a tripartite agreement between the Ministry of Federal Planning, Public Investment and Services, the Province of Buenos Aires and the Government of the Autonomous City of Buenos Aires, is responsible for planning sanitation works in the area operated by *Agua y Saneamiento* (AySA) (Water and Sanitation), the former *Aguas Argentinas*.

Another important agency is the *Consejo Hidrico Federal* (CO-HIFE), in charge of devising discussion mechanisms, agreements, access to and exchange of information, conflict resolution methods, the agenda of key issues to be addressed by the provinces, and of imposing accountability conditions for programme coordination processes upon federal authorities.

The Consejo Federal de Entidades de Servicios Sanitarios (COFES) (Federal Council of Sanitation Services), which comprises all provincial companies, seeks to promote cooperation among participating agencies and companies. The Asociación Argentina de Ingeniería Sanitariay Ciencias del Ambiente (AIDIS Argentina – Argentine Association of Sanitation Engineering and Environmental Sciences) is a member of the Inter-American Association of Sanitation and Environmental Engineering (AIDIS Interamericana).

Regulatory agencies are members of the Asociación Federal de Entes Reguladores de Agua y Saneamiento (AFERAS – Federal Association of Water and Sanitation Regulatory Agencies). At the Latin American level, these agencies are members of the Asociación de Entes Reguladores de Agua y Saneamiento de las Américas (ADERASA – Association of Water and Sanitation Regulatory

Agencies of the Americas). These are political organisations with many shortcomings in terms of experience, personnel training, clear objectives, roles and working methods.

This mapping of stakeholders should include the thousands of drinking water and sanitation operators, many of which are cooperatives with high ethical and professional standards, with natural cross checks suitable for integrity preservation, and private irrigation consortia such as those in the provinces of Salta and Jujuy.

On a broader scale, and outside the water sector, the **Anti-Corruption Office** is responsible for corruption prevention and investigation activities and for collecting annual sworn statements of assets, liabilities and net worth from all public officials responsible for managing government property.

The *Sindicatura General de la Nación* (Office of the Comptroller General – SIGEN) is the governing body of the internal control system of the Executive. It coordinates activities for the national public sector management to achieve government objectives. The *Auditoría General de la Nación* (National General Auditing Office – AGN) provides technical assistance to Congress in state control of public sector accounts. The tasks of the SIGEN are similar to those of the AGN, but the latter is a parliamentary body jointly managed with opposition parties.

The few public or civil organisations engaged in transparency issues are only occasionally or indirectly devoted to integrity in the water management sector: Foro Permanente de Fiscalías de Investigaciones Administrativas y Oficinas Anti-Corrupción (since 2005 in Viedma, Province of Río Negro); Dirección Provincial de Anti-Corrupción y Transparencia del Sector Público (since 2008, Province of Santa Fe), member of the Transparency and Information Access Network (RTA); the "Water Observatory" (in Santa Fe); Nuestra Mendoza and Nuestra Córdoba associations, also members of the RTA; Fundación Metropolitana, an NGO engaged in managing public property (in the Metropolitan Region of Buenos Aires) and OIKOS Ambiental, which has a Water Advocacy Program (in Mendoza).

2.1.3 Capacity development needs and target groups

All public or private agencies involved in public sector administration have capacity development needs. In the context of Integrated Water Resources Management, those whose activities may exert a negative impact on the environment should also be included in the target groups. Institutional capacity in terms of transparency, integrity and accountability is very low.

Capacity development seeks to: a) raise awareness of integrity, of the human right to water and of IWRM; b) identify vulnerabilities to corruption through workshop sessions; and c) develop ethical practices and organisational culture.

Given its social and institutional context and its national scope, the most important target group in Argentina is COHIFE. COHIFE is still very new and will take some time to achieve full autonomy. It is financially and organisationally subordinate to the SSRH, the agency that provides the funds and assists in the preparation of the agenda. As it is composed of one representative per province, the interests represented always take top priority.

The problem is that most provincial water agencies engage in hydraulics, flood control, or irrigation, while sectors such as drinking water supply and sanitation, regulatory agencies and private irrigation consortium operators are hardly represented at all. COHIFE finds it difficult to promote actions towards IWRM at the provincial level, and its meeting agendas fail to include the subject of integrity in water management. This must clearly be one of the goals of training activities.

The drinking water and sanitation sector comprises all provincial and municipal drinking water and sanitation companies as well as a huge number of small-scale operators. The strategy recommended is to join associations such as the Argentine Association of Sanitation Engineering and Environmental Sciences (AIDIS) and the Federal Council of Sanitation Services (COFES), which gather all major water and sanitation companies of the country. Also, the *Ente Nacional de Obras Hídricas y Saneamiento* (ENHOSA – National Agency of Water Works and Sanitation) has a long history of institutional capacity development in provincial water supply and sanitation agencies.

Based on the success of water and power supply cooperatives, it is tempting to design some sort of "benchmarking" in integrity and accountability with cooperatives transferring their experience to major companies.

Efforts should be made to strengthen and enhance development of non-governmental organisations concerned with integrity issues. The strategy for this target group consists in offering non-governmental organisations, either existing or in the process of being set up, incentives to direct their efforts and develop capacities to promote integrity in water management.

Finally, attention should be paid to irrigation organisations that are notoriously heterogeneous. They range from those with a centralised administration to those operated as private organisations. Selection of this target group should be made on a situational basis.

2.2 Water governance in Brazil

Access to water in Brazil is strongly marked by class, gender, race and ethnicity issues as well as by regional inequalities; this is why the subject of integrity and accountability in integrated water resources management becomes more relevant and is central to democratic water governance and sustainable human development.

The regulatory framework for water management at the national level is the *Water Code* of 1934, but it is Law No. 9433/97 – which regulates paragraph XIX of Article 21 of the Federal Constitution – that lays down the *Política Nacional de Recursos Hídricos* (PNRH – National Water Resources Policy) and creates the *Sistema Nacional de Gerenciamiento de Recursos Hídricos* (SINGREH – National Water Resources Management System). The latter is based on the following principles: water is a public good, the river basin is the land unit and management must be systemic, decentralised and participatory. Decentralised and participatory management offers states the possibility of legislating on a subsidiary basis. This gives rise to different configurations of the states' water systems and allows local actors to participate in decision-making.

The PNRH – established by Article 5 of the above-mentioned law–includes: water resources plans, classification of water bodies, allocation of water use rights, water use charges, compensation to municipalities, and water resources information systems.

In addition to *Law No. 9433*, *Law No. 9984* of 2000 created the National Water Agency, with executive functions to enforce the PNRH in the jurisdiction of the federal government. Recently *Law No. 12058* of 2009 granted the Agency the power to regulate public irrigation services with federal water bodies. Finally, *Law No. 10881* of 2004, amidst the difficulties in setting up basin organisations, regulated the function of delegated agencies to exercise the powers of the Agency in rivers within the domain of the federal government.

The last decades have been marked by a series of government initiatives to improve accountability, responsibility and integrity in public management:

- Brazil ratified the main international agreements dealing with promotion of transparency and the fight against corruption: Open Government Alliance; United Nations Convention Against Corruption Agreement (UNCAC); Convention of the Organization of American States (OAS); Convention of the Organization for Economic Cooperation and Development (OECD).
- 2. The objective of the *Transparency Law* (Law No. 12527, November 18, 2011), the most recent legal instrument, is to regulate the constitutional right of citizens' access to public information. Its provisions apply to the three powers of the Federal Government and to the States, the Federal District and the Municipalities. It is supplemented by the *Law of Access to Public Government Information* and by the *Fiscal Responsibility Law*—LRF (Supplementary Law No. 101/00).
- 3. The Brazilian *Transparency Programme* aims to support enforcement of the Law of Access to Public Government Information and promote efforts to improve transparency in the public sector and adopt open government measures.
- 4. The First National Conference on Transparency and Social Control (CONSOCIAL) is a wide forum that seeks to involve key stakeholders of society in a multi-stage process conducted not only at local, municipal and regional levels but also at state and federal levels. The central topics of the first CONSOCIAL were public transparency and social control.
- 5. The *Transparency Portal* of the Federal Government is a tool developed by the Office of the Comptroller General (CGU) in November 2004 to ensure better use of public resources. Its objective is to improve transparency in public management so that citizens can monitor public spending and supervise its application.
- 6. In addition to the above, the Comptroller General-initiated Programme "Where is the public money?" seeks to raise awareness of the importance of transparency in public management, accountability and compliance with legal regulations among local leaders, local government officials, professors and students.
- 7. The *Second Brazilian Action Plan*, launched on May 7, 2013, is part of the *Open Government Alliance*. This document includes 45 commitments by 17 federal agencies and is divided into five areas: enhanced public sector integrity, public service improvement, greater corporate responsibility, development of

safer communities, and more effective public resources management. Community participation is promoted by means of discussions via an online platform.

2.2.1 Water management reforms and IWRM

Until the 1980s, shaping and execution of water policies in Brazil was in the hands of the Federal Government, which used a clear sectoral approach. With the end of the military dictatorship and democratisation of the country, the Federal Constitution of 1988 laid emphasis on community participation. By regarding water as a public good, the Federal Constitution set forth that it is the Federal Government's responsibility to legislate on water resources. It was then that the *National Water Resources Management System* (SINGREH) was created. Since the Constitution was enacted, several Brazilian states have introduced or amended their water laws.

Even though the legal framework deals with central issues applicable to the whole of the national territory, the Brazilian water system has regional features that pose great challenges to the SINGREH: (i) in Amazonia and in the wetlands demands center around environmental protection; (ii) in the semi-arid region, where water availability is low, and existing infrastructure and new constructions require expansion and optimisation; (iii) in the southern and southeastern parts of the country excessive water use impairs water quality; (iv) river basins are managed under the principle of "predominant use" rather than under the principle of multiple use; and (v) large urban centres call for public water supply alternatives.

More than a decade after Law No. 9433 came into force, a full revision of the policy and of the system is deemed convenient.

2.2.2 Mapping of organisations and stakeholders

There is a very wide range of players directly or indirectly related to integrity and accountability in water resources public management. This section focuses on the role of organisations that are part of the SINGREH. At the federal level, they are: the Ministry of the Environment (MMA), responsible for formulating the National Policy; the Ministry of Planning and Budgets (MPOG), in charge of coordinating water resources policies; the National Water Agency (ANA), responsible for policy implementation and, in some cases, for policy formulation; the National Water Resources Council (CNRH), subordinate to the SINGREH, in charge of coordinating and monitoring policy implementation. At the local level, there is the Water Resources Councils of the provinces. The agencies responsible for internal and external control are: the *Office of the* Comptroller General (CGU), through its Corruption Prevention and Strategic Information Office, which supervises enforcement of international agreements and conventions entered into by the country, and the Court of Auditors.

In connection with policy implementation and civil society participation there is an increasing number of social movements (different environmental movements, the Indigenous Peoples' Movement, the anti-dam movement, etc.), in particular horizontal social movements, which rely to a great extent on the performance of *River Basin Committees* (more than 170), designed to ensure

the participation of all sectors, especially the most vulnerable ones, in implementation and assessment of the Water Policy.

Other groups are *non-governmental organisations*, such as the Brazilian Forum of Non-Governmental Organisations and the National Forum on Transparency and Social Control, responsible for monitoring implementation of public policies, and *technical-scientific organisations* such as the Brazilian Water Resources Association and the National Industrial Confederation through its Water Resources Network.

2.2.3 Capacity development needs and target groups

In identifying capacity development needs related to integrity and accountability, special attention must be paid to collegiate bodies, especially the National Water Resources Council, Water Resources Councils of the States, and River Basin Committees which, in addition to charging for water use, apply planning instruments for basin management (National, District and State Water Resources Plans and Watershed Plans) that govern resource allocation and play an important social control function.

The decentralised Brazilian water management model is characterised by the existence of different spaces for discussion and debate on multiple water uses. These spaces are necessary to promote and adopt instruments that improve integrity in water management but they do not suffice to implement accountability mechanisms or to ensure a representative and effective participation of all sectors involved. As in any decision-making system, the process of deliberation in spaces for participation of the National Water Resources Management System is subject to and governed by those who have the information. In this sense, a continuous training, education and information process of the groups involved is required to reduce this information asymmetry and ensure social control over the whole process.

Since Water Resources Councils and Watershed Committees are the main spaces for participation at SINGREH, they should be targeted as the starting point for capacity development. These organisations are the most skilled at improving horizontal policy coordination and empowerment of all relevant actors for their effective participation in the solution of management problems.

The following planning scheme is suggested:

- *I.Training in:* a) representation and representativeness with emphasis on integrity/accountability; b) institutional framework and management tools focused on integrity/accountability; c) financial flows with an integrity/accountability approach
 - Target group 1: executive secretaries of national and states' councils and river basin committees
 - Target group 2: national and states' officials and representatives of different river basin committee sectors (civil society and users)
- 2. Awareness-raising on the importance of transparency in public administration, accountability and compliance with legal regulations:
 - Target group 1: municipal officials, local leaders and municipal public agents
 - Target group 2: professors and students

2. 3 Water governance in Colombia

Despite Colombia's relative wealth of water resources, 4 million people lack access to drinking water and almost 7 million to sanitation services. Though this situation was analysed and considered by the state at different budgetary periods, it could not be remedied. According to the Superintendency of Residential Public Services, if the resources allocated in the 1996-2003 period had been efficiently used, 100 per cent of the population would now have access to drinking water services and 95 per cent to sanitation services.

This shows that even though Colombia is especially affected by corruption, the problem has only recently received attention. Anti-corruption strategies were formally adopted in 1991 with the setting up of the Mission for Public Administration Ethics and Efficiency. Since then, executive, legislative and judicial agencies as well as control organisations have been gradually developing multiple anti-corruption instruments.

According to the Constitution of the Republic of Colombia, the State must intervene in natural resources exploitation and in private and public service delivery in order to enhance the quality of life of the population, ensure equitable distribution of development opportunities and benefits, and maintain a healthy environment (art. 334 CP). Water in Colombia is a public good (art. 80 D.2811/74) that must be managed by the State. In 2010 this concept was made part of the National Policy for Integrated Water Resources Management. As regards administrative decentralisation, municipalities are responsible not only for rendering public services as prescribed by law, but also for building the infrastructure that local progress demands and for developing land use planning schemes (art. 311 CP).

In terms of participation, the Constitution recognises the right of all citizens to participate via multiple channels (voting, plebiscite, referendum, public consultation, open council, legislative initiative and revocation of mandate, among others) and commands legislators to organise ways and methods of community participation that make it possible to keep a check on public administration (art. 270 CP).

Unlike other constitutions of the region, the Colombian Constitution does not explicitly acknowledge the human right to water; however, in multiple rulings the Constitutional Court has protected the right to water of all individuals. This right has been structured around General Observation 15 of the Committee on Economic, Social and Cultural Rights of the United Nations.

The most significant national piece of legislation is Law 1474 of 2011, the "Anti-Corruption Act", that sets forth multiple administrative, punitive, fiscal and disciplinary measures, regulates lobbying, creates special anti-corruption agencies, identifies institutional and educational policies, and establishes provisions to prevent and fight corruption in public procurement.

Other legislation includes Law 80 of 1993, partially amended by Law 1150 of 2007, which incorporated the General Statute of Public Administration Procurement and introduced efficiency and transparency measures applicable to all procurement operations involving public funds; it was regulated by Decree 734 of 2012.

Law 850 of 2003 defines community oversight committees as democratic representation mechanisms that allow citizens or community organisations to oversee public management. Law 734 of 2002 and the Unified Disciplinary Code lay down the rules that civil servants must comply with.

In addition to these rules, the Colombian government promoted the Draft Bill on Transparency and Right to National Public Information. This law requires that information should be made available to all citizens, with no need to petition for it.

The National Council of Economic and Social Policy (CONPES), the main advisor to the government in economic and social development matters, has devised multiple anti-corruption policies:

- CONPES Project 2779 of 1995 promotes civil society participation.
- CONPES Project 3072 of 2000 aims to systematise and share public information by means of information technologies.
- CONPES Project 3248 of 2003 regulates the Public Administration Renewal Programme (PRAP) and seeks to rationalise the functions of the Administration.
- CONPES Project 3186 of 2002 promotes efficiency and transparency in public procurement.
- CONPES Project 3654 of 2010 aims to organise and regulate accountability actions through a policy on Accountability of the Executive Branch.

Within the international policy framework, Colombia is part of:

- The Convention to Combat Bribery of Foreign Public Officials in International Economic Transactions (as of January 2013);
- The United Nations Anti-Corruption Convention;
- The Inter-American Anti-Corruption Convention (of 1996).

Other interactive transparency and integrity tools are: the Anti-Corruption Observatory, the Ventanilla Unificada de Denuncias (Integrated Office for Complaints), and the Electronic Public Procurement System. With these instruments and platforms, Colombia ranks first in the region and sixth worldwide in online participation; according to the United Nations Department of Economic and Social Affairs of the Public Administration and Development Management Division (UNDESA, 2012), Colombia ranks second in the region and forty-third worldwide in Government Online.

2.3.1 Water management reforms and IWRM

The greatest progress achieved in water management was the enactment of the National Integrated Water Resources Management Policy in 2010. It recognises the strategic nature of water for all social, economic and cultural sectors of the country, and lays down objectives and strategies towards integrated water resources management.

The National Integrated Water Resources Management Policy makes no direct reference to corruption. Furthermore, the analysis for Colombia describes issues such as planning, administration, follow-up and monitoring, and water-related conflict management, but does not identify corruption or lack of transparency as a cause of water management problems.

Thus, the only indirect reference relates to the way the policy identifies the need to implement programmes – as a line of action – to promote social control and community oversight in order to consolidate and strengthen governance.

2.3.2 Mapping of organisations and stakeholders

The two most important public agencies responsible for controlling public administration are the *Office of the Comptroller General of the Republic* and the *Office of the National Director of Public Prosecutions*.

The Office of the Comptroller General of the Republic oversees fiscal management of the administration and of individuals or agencies that handle public funds or property. As regards water management, the condition of natural resources in general is analysed and assessed on a yearly basis. This report assesses both the policy and public spending of the National Environmental System.

Among other responsibilities, the Office of the National Director of Public Prosecutions ensures compliance with the Constitution, the laws, judicial decisions and administrative decisions; protects and guarantees the effectiveness of human rights; protects the interests of society; and exercises control over the official conduct of public officials. The Office is staffed with a Delegate for Environmental and Agricultural Affairs who performs preemptive functions and environmental management control, intervention functions in matters related to administrative and judicial authorities, and disciplinary functions in matters pertaining to environmental protection and conservation. In 2006 the "Inter-Institutional Board of Achievements" was set up to support compliance with regulations on residential public services for the drinking water and basic sanitation sector.

Notwithstanding the above, the Constitution sets forth that it is the President of the Republic, through the *Superintendency of Residential Public Services*, who defines general control policies and performs inspection and control of residential water and sanitation service providers. With respect to procurement regulations, Colombia set up the *National Agency for Public Procurement* in

The *Fiscalía General de la Nación* (Office of the Public Prosecutor General) has a *Unidad Nacional Anti-corrupción* (National Anti-Corruption Unit) to investigate state procurement irregularities.

The *Defensoria del Pueblo* (Ombudsman's Office), responsible for promoting, exercising and publicising human rights, is especially effective in matters related to the human right to water.

The *Secretaría de Transparencia* (Transparency Secretariat), created in 2011, supports the fight against corruption and ensures efficient and transparent state management.

The *Dirección de Gestión Integral del Recurso Hídrico* (Integrated Water Resources Management Authority), which is part of the Ministry of the Environment and Sustainable Development, provides the technical elements to devise policy and regulate integrated continental water resources management, and performs monitoring and evaluation activities. The Authority was set up in 2011, superseding the old Ministry of the Environment, Housing and Land Development, with an Ecosystem Division and a Water Resources Group that led the development of the IWRM policy in 2010.

In the interior of the country water is managed by *Corporaciones Autónomas Regionales* (CAR – Regional Autonomous Corporations) that are in charge not only of developing and designing multiple planning, administration, evaluation, and

environmental control instruments but also of implementing infrastructure works. Departments, municipalities and large urban centres work in coordination with the CARs and other agencies in the development of flood protection projects, and in stream and riverbed regulation and decontamination.

Also involved in water management is the *Departamento Nacional de Planeación* (National Planning Department – DNP), in charge of assessing and monitoring water sector investments as well as of conducting technical, legal, financial and institutional project reviews.

Public services are regulated by the *Comisión de Regulación de Agua Potabley Saneamiento Básico* (CRA – Drinking Water and Basic Sanitation Regulatory Commission). The CRA defines the pricing formulas to be applied by service providers. Tariff management makes it possible to promote competition and regulate monopolies in order to "foster sustainability in the drinking water and basic sanitation sector and prevent abuse of a dominant position, thus ensuring provision of quality services with reasonable tariffs and broad coverage" (CRA, 2012). As regards transparency of decisions, CRA has set up different communication channels with the community and with regulated service providers.

The Organizaciones de la Sociedad Civil (civil society organisations) that are actively working on integrity and transparency issues at the national level are: Transparencia por Colombia (Transparency for Colombia); Consejo Privado de la Competitividad (Private Competitiveness Council); ONG por la Transparencia (NGO for Transparency); and the Asociación Nacional de Empresarios de Colombia (ANDI–National Association of Colombian Entrepreneurs). The Inter-American Development Bank (IDB), the World Bank (WB) and different UN agencies play an active technical and financial advisory role.

2.3.3 Capacity development needs and target groups

As the Política Nacional para la Gestión Integral del Recurso Hídrico (2010 – National IWRM Policy) makes no direct reference to integrity and transparency in the water sector, capacity development is required for public agencies involved in water administration, including IWRM and organisational culture.

Though Colombia has a broad legal framework and some water integrity tools, civil society does not have enough monitoring and supervision mechanisms to control public sector management of water resources. It is necessary to raise awareness of integrity, ethics and the human right to water. Capacities should be developed in the above-mentioned organisations, and actions and initiatives of NGOs involved in integrity and transparency matters should be strengthened.

2.4 Water governance in Costa Rica

The Costa Rican water legislation reflects the evolution of the approach. Costa Rica's water sector regulatory framework comprises:

- 1. The Political Constitution, which regards water as a strategic resource for the country's social, cultural and economic development.
- 2. The Water Law (Law No. 276), which sets forth the public nature of water; defines water use priorities; establishes protec-

- tion areas; and regulates different uses and management areas, including infrastructure works.
- 3. The General Health Law (Law No. 5395), which stipulates that access to water for human and domestic consumption prevails over any other use and is consequently considered as a fundamental goal of the state. The law also stipulates that collective uses prevail over individual uses.
- 4. The Organic Environmental Law (Law No. 7554 of October 4, 1995), which deals with water pollution prevention. Article 22 states that any natural or legal person, whether public or private, has the right to be heard by the National Technical Environmental Secretariat at any stage of the project's evaluation process and during the operational phase of the works.
- 5. The Concession Framework Law for the Use of Hydraulic Forces for Hydropower Generation is very important since hydropower accounts for 82 per cent of the electricity consumed in Costa Rica.
- 6. Executive Decree No. 30480-MINAE (2002), which lays down the following principles: a) access to drinking water is an inalienable right that must be constitutionally protected; b) water management, especially regulations on access to water, must be governed by equity and social and inter-generational solidarity; c) water must be considered by law as a public good; d) the economic value of water, which stems from the costs involved in water administration, protection and reclamation for the well-being of all citizens, must be acknowledged; and e) the ecological function of water as a source of life and survival of all the species and ecosystems that depend on it must also be acknowledged.
- The Law of Soil Use, Management and Conservation (Law No. 7779 of 1998), which promotes community participation through soil management, conservation and reclamation committees within the Government's National Development Plan (2010).

The National Water Policy (2009) includes principles that coincide with the principles recommended by ECLAC for a National Integrated Water Resources Management Policy in matters of integrity:

- 1. The watershed is the basic land unit for planning and management.
- Fresh water is a scarce resource that must be equitably developed, allocated and managed among all sectors and users while maintaining quantity, quality, supply and safety in a sustainable manner.
- 3. Promotion of users' and social actors' participation at all water management levels.
- 4. Research and knowledge of the hydrological and "hydro-social" cycle are essential for water safety and sustainability.

In connection with the measures adopted to promote transparency and integrity in governance, *Article II of the Costa Rican Political Constitution* was amended in 2000 to guarantee accountability of public officials and organisations as well as control of results.

In order to ensure transparency in public procurement, the Ministry of the Environment and Energy (MINAE) implemented the *water use concession system*, which can be accessed through the website by anyone wishing to know who owns water use concessions.

sions, both surface and underground, for how long, how much water is involved and for which uses.

On October 6, 2004, Costa Rica adopted Law No. 8422, the *Law against Corruption and Illicit Enrichment in the Civil Service*. The law applies to civil servants and people working for public utilities, public agencies in charge of common-law actions, attorneys-in-fact, administrators, managers and legal representatives of the legal persons that control, administer or use public funds, property or services under any title or type of management. The law protects the whistleblower (Article 8) and extends the powers of the Office of the Comptroller General of the Republic to Costa Rican foreign-service officials and offices outside the national territory (Article 13).

Costa Rica ratified the *Inter-American Anti-Corruption Convention* by Law No. 7670 of April 17, 1997, and on June 21, 2006, appointed the Office of Public Ethics to act as the Central Authority. The convention seeks to encourage the State Parties to establish the necessary mechanisms to prevent, detect, punish and eradicate corruption, and to facilitate and regulate cooperation among them.

On December 9, 2003, Costa Rica signed the *United Nations Anti-Corruption Convention*, which was approved by Law No. 8557 of November 29, 2006. It promotes measures to prevent and fight corruption, accountability, and proper management of public affairs. This strategy promotes transparency in public procurement, proper training and remuneration of civil servants, and adoption of ethical codes of conduct for public officials.

2.4.1 Reforms in water management and IWRM

Notwithstanding the fact that Costa Rica has a National Water Policy (2009), a Strategy for Integrated Water Resources Management (2006), a National Integrated Water Resources Plan (PNGIRH, 2009), and other water planning instruments, it has not managed to amend the Water Law. Several draft bills currently being discussed seek to establish proper water management practices and to assess the performance of water management organisations.

Some 120 laws and decrees granting powers and regulating water-related procedures and activities are expected to be combined into a single law. The reform seeks to avoid overlapping roles and fragmentation of regulations, promote integrated service management, improve operators' frail financial situation, and acknowledge water as a social and economic good as well as a natural resource. It promotes management at local, regional, national and basin levels under the principles of Integrated Water Resources Management (IWRM) and improves water governance by strengthening Rural Aqueduct and Sewerage Administrations (ASADAS) and local operators.

2.4.2 Mapping of organisations and stakeholders

Institutions in Costa Rica such as the *Ombudsman's Office* (DHR), subordinate to the Legislative, the *Office of the Comptroller General*, the *Office of Public Ethics* (since 2006), the *Environmental Administrative Court* and other administrative bodies impose

punitive measures for actions and/or omissions considered as alleged violations within the context of corruption.

Costa Rica has assigned responsibilities and powers related to water uses. The *Ministry of the Environment and Energy* (MINAE), through the *National Environmental Technical Secretariat* (SETENA), is responsible for analysing and approving environmental impact studies of drinking water supply, sewage and wastewater treatment projects, while the *Ministry of Health* is responsible for approving drinking water supply projects, regulating and controlling water quality for human consumption, and approving waste disposal and domestic and industrial wastewater treatment projects.

Institutions in charge of regulating service quality control, of authorising pricing schemes and managing service quality and special conditions include: the *Regulation Authority for Public Services* (ARESEP), the *Ministry of the Environment and Energy* (MINAE), the *Ministry of Health* (MS), the *Ministry of Farming and Cattle Raising* (MAG), the *Costa Rican Institute of Aqueducts and Sewerage* (AyA), and the *National Groundwater, Irrigation and Drainage Service* (SENARA). These institutions hold hearings and public consultations with community representatives, consumer associations, local authorities, service providers, etc.

The Costa Rican Aqueduct and Sewer System Institute (ICAA) operates and renders water distribution services to the population and is responsible for piping domestic and industrial wastewater and sewage through the sewerage system. The Public Services Utility of Heredia (ASPH S.A.), municipalities, Rural Aqueduct Administration Committees (CAARs), and Rural Aqueduct and Sewerage Administration Associations (ASADAS) also act as operators.

Natural Resources Vigilance Committees (COVIRENA), regulated by Executive Decree No. 26923-MINAE, are community organisations that play a key role in sustainable development.

The *Civil Society Bureau* was set up in January 2002 to establish and maintain the necessary coordination links between MINAE and social organisations in order to enhance community participation and cooperation between civil society organisations and public sector agencies.

Five decentralised institutions involved in natural resources management with civil society participation were set up within the *National Conservation Area System* (SINAC), which is subordinate to the MINAE. The system takes into consideration the social, cultural, ecological, economic and political dimensions of the different regions.

Third-sector organisations in Costa Rica include integrated development associations; bottling companies; users' associations; NGOs engaged in water resources – such as the Costa Rican Water Alliance –, in consumers' water rights and in environmental law – such as the Center for Environmental Law and Natural Resources (CEDARENA) –; and academia.

2.4.3 Capacity development needs and target groups

Costa Rica should address capacity development through government water agencies, which already promote civil society

participation, such as the National Conservation Area System (SINAC), subordinate to MINAE, and the Civil Society Bureau. Training activities in integrity, human right to water and IWRM issues are suggested.

The Natural Resources Vigilance Committees (COVIRENA) and water-related NGOs should also be trained in identifying vulnerabilities to corruption and in solving conflicts to promote water sector transparency.

2.5. Water governance in Mexico

In international ratings, Mexico scores badly in terms of integrity. According to the 2008 Global Integrity Report, Mexico ranks second after Haiti in Latin America. On the other hand, in terms of evolution of the Corruption Perception Index issued by Transparency International for the 2002-2012 period, Mexico fell to 105th place in 2012 from 57th in 2002, with a score of 3.6 and 3.4, measured on a scale of 10, where 0 is maximum corruption.

Corruption perception of the Mexican state in the last two decades has been a matter of great concern; efforts have been made to increase participation of different population sectors. However, the fight against corruption in Mexico has not had any effective impact, at least in the last three years. According to the index issued by Transparency International, Mexico remains in the same position in terms of corruption (72nd among of 180 countries).

Being a member of the G20 Anti-Corruption Working Group, Mexico participated in the third meeting of the G20 Anti-Corruption Working Group held in Paris, France.

Nevertheless, some progress has been made in terms of integrity and transparency. Since June 12, 2003, the Federal Law of Transparency and Access to Public Government Information has made it mandatory for all agencies and organisations of the federal government to provide access to documents, work methods, information on the use of public resources, and performance and results achieved. As part of this process, the Federal Institute of Access to Public Information (IFAI) was created in December 2002.

In 2011 articles 103 and 107 of the Political Constitution of the United Mexican States were amended to establish the basis for the modernisation of the "amparo" suit¹ as the second most important guarantee of human rights in Mexico.

The national-political covenant known as the "Pact for Mexico" was signed in December 2012. The primary purpose of the Pact is to enhance the democratic process based on three guiding axes that translate into 95 commitments: 1) strengthening of the Mexican State, 2) economic and political democratisation; 3) community participation in the design, execution and assessment of public policies. Three reforms will be implemented to strengthen transparency, accountability and, above all, the fight against corruption:

- Implementation of the accountability reform;
- Expansion of the powers of the Federal Institute of Access to Public Information (IFAI): i) a constitutional reform will be promoted to make IFAI an autonomous constitutional body

- with powers to act before all public federal bodies, revise local agencies' resolutions and deal with cases of national relevance; and ii) state agencies shall be autonomous, collegiate and specialised in transparency issues.
- Creation of an anti-corruption national system which, through
 a constitutional reform, will set up a national commission
 and state commissions to prevent and investigate suspected
 corruption. The commissions will have the powers to impose
 administrative penalties and file complaints against corruption
 with state agencies. The National Council for Public Ethics,
 made up of Mexican state authorities and members of the civil
 society, will monitor actions to fight corruption.

Though Mexican laws (consistent with the universal right to water) have recently been amended, gaps in existing legislation surface at the time of implementation. According to the Political Constitution of the United Mexican States, everyone has the right to sufficient, safe, acceptable and physically accessible and affordable water for personal and domestic use. It is the State's obligation to guarantee that right; the law lays down the bases, means and modes for equitable and sustainable access to and use of water, and the participation of the Federation and federative agencies, municipalities and the population.

The National Water Law (LAN, 2011) deals with Integrated Water Resources Management. However, there are obstacles to IWRM implementation, especially at a local and regional level, due to weak federal regulations. As water comes within national jurisdiction, the remaining laws in the Political Constitution of the United Mexican States that regulate federative agencies and municipalities are subject to the National Water Law, a fact that leads to a high concentration of powers that contradict local needs. Although a certain degree of success has been achieved in water rights, there are still thousands of Mexican households that lack a decent amount of water for their daily lives.

Though water management institutions operate within an accountability system, under the Federal Transparency Law, the By-laws of the Federal Transparency Law, the Transparency Guidelines, the National Program for Accountability, Transparency and Fight against Lack of Integrity, and the Administrative General Manual for Transparency (CAN, 2013), officials are repeatedly reluctant to provide information concerning their decisions, the procedures they follow, the results obtained and the use of budgets, all of which affects accountability. The same holds for federative agencies which, despite the fact that they have their laws on transparency and access to information, still have high corruption indexes that prevent law enforcement in their jurisdictions and affect transparency in water use and management.

2.5.1 Reforms in water management and IWRM

In 1989, by decree of the Federal Executive of the Secretariat for the Environment and Natural Resources (SEMARNAT), the National Water Commission (CONAGUA) was set up to promote

¹ Translator's note: The "amparo" suit is an original Mexican institution with no exact equivalent in the common law tradition. The word "amparo" literally means favor, aid, protection, or shelter. Legally the word encompasses elements of several legal actions of the common law tradition: writ of habeas corpus, injunction, error, mandamus, and certiorari. There are five types of "amparo" suits: 1) "amparo" as a defense of individual rights such as life, liberty, and personal dignity; 2) "amparo" against laws (defending the individual against un-constitutional laws); 3) "amparo" in judicial matters (examine the legality of judicial decisions); 4) administrative "amparo" (providing jurisdiction against administrative enactments affecting the individual); 5) "amparo" in agararian matters. Source: http://www.redress.org/downloads/country-reports/Mexico.pdf

integrated and sustainable water management in river basins and aquifers and to consolidate water quality in Integrated Water Resources Management.

In 2012, article 4 of the Constitution was amended to stipulate that everyone has the right to sufficient, safe, acceptable and physically accessible and affordable water for personal and domestic uses.

2.5.2 Mapping of organisations and target groups

The Federal Institute of Access to Public Information (IFAI) is part of the Federal Public Administration, has budgetary and decision-making autonomy, and is responsible for promoting and spreading the right to information and for protecting personal data filed in personnel offices and agencies. However, so far it has shown little capacity to meet demands.

Other agencies related to access to information and public accountability are:

The **Office of the Municipal Comptroller**, which is in turn accountable to the Office of the Comptroller General (at state level), demands accountability from the Municipalities to promote optimal, honest and transparent water use, improves public servants' management and performance, and enhances accountability in Public Administration.

The National Water Commission (CONAGUA), subordinate to the Secretariat for the Environment and Natural Resources (SEMARNAT), is involved in integrated water management at national, regional and state levels. Its main functions include project execution and funding, and administration of water delivery services to urban and rural operating organisations such as the Decentralised Drinking Water, Sewerage and Sanitation Agencies (ODAPAS). These organisations have their own legal standing and equity, are autonomous in managing their own resources, and have fiscal authority to collect and administer revenues derived from service-rendering. One of their functions in terms of integrity consists in scheduling visits to drinking water supply facilities (wells) to determine their operation and operating conditions and take all necessary measures in the event failures are detected. Mention should also be made of the Water Advisory Council.

The most important social structure in charge of self-water management and distribution is the *Water Committee*, a system that is present in indigenous and mixed-race populations and that is based on uses and customs. This type of water management is found in a large part of ancient Mesoamerica. Water Committees are in charge of organising the community to manage water-related activities that must be conducted jointly and in a democratic way.

The Coalition of Mexican Organisations for the Right to Water (COMDA) consists of civil organisations and social movements whose objective is to protect water for the benefit of the people, protect the environment through water conservation and efficiency for the benefit of the environment, and ensure equitable access to and use of water through community participation, democratic management and protection of the human right to water.

It is also worth mentioning the *First National Assembly in Defense of Land and Water and against their Privatisation*, which brought together some 200 delegates from more than 110 organisations as well as from social, political and environmental

agencies of the 13 Mexican states. Organisations proposed that the long-term strategy and goal is to set up Popular Water Protection Committees at local and community level to help in public utilities' democratisation and in local and regional water control and participation until autonomous water management is achieved.

2.5.3 Capacity development needs and target groups

In connection with capacity development requirements, local communities should be involved in decision-making and in the control of services and water resources. Water Committees should be trained to develop and consolidate their organisational structures into formal water protection civil associations and, on a wider spectrum, to raise the communities' awareness of transparency and accountability as instruments of participatory democracy. It is also important to strengthen the Coalition of Mexican Organisations for the Right to Water (COMDA) so as to promote and monitor integrity and transparency in water management and governance. At state level, there is no coordination between the three government areas – federal, state and municipal – in service delivery and water supervision; in this sense, water sector officials should be trained in IWRM and organisational culture, especially those from the National Water Commission (CONAGUA) and from Drinking Water, Sewerage and Sanitation Decentralised Agencies (ODAPAS).

On the other hand, there are no suitable legal frameworks. The existing ones either do not take into account customary practices and cultural diversity or lack sections on transparency and responsibility related to IWRM. Capacity development should be provided to state officials and professionals specialised in water and environmental law so as to design public policies that include integrity and transparency issues.

Government agencies involved in accountability and access to information should also be trained to promote programmes on transparency and responsibility in the water sector in a more efficient and integrated manner. The agencies identified as target groups are the Federal Institute of Access to Public Information (IFAI), the Office of the Municipal Comptroller, the Office of the Comptroller General, and the municipalities. Capacity development should focus on transparency and integrity related to IWR M

2.6 Water governance in Peru

Peru has implemented laws and policies and has set up agencies that uphold integrity and transparent governance procedures:

- The Anti-Corruption Law, which establishes the creation of the High-Level Anti-Corruption Commission (set up by Decree No. 016-2010-PCM on January 28, 2010, to serve as a coordinating body between the major branches of the government, constitutionally autonomous agencies, regional and local government agents, entrepreneurial groups, Acuerdo Nacional and civil society); and the National Anti-Corruption Plan
- The Government Transparency Law;
- The Law of Access to Public Government Information;
- The Law of Previous Consultation (2012), requested by a Conflict Prevention and Management Commission of the Council of

Ministers (PCM), the Office of the National Comptroller and the Ombudsman's Office with decentralised offices throughout the country.

In 2009, Peru enacted a new Water Resources Law – Law No. 29338 – which supersedes the previous General Water Law that had been in force for almost 40 years and which laid emphasis on water for agricultural use. The current implementation process of the new law does not explicitly consider the different principles of integrity in water management and governance.

Implementation of ILO's Agreement 169, signed by Peru (February 2, 1995) in connection with the rights of indigenous peoples to natural resources, land and consultation, and approval of the Law of Previous Consultation (No. 29785 of April 2, 2012) have made it possible, in principle, to address several water integrity issues. Although this law constitutes a step towards integrity, transparency and participation in water governance and public administration, its implementation gives rise to concerns over who will and will not have that right. This may lead to arbitrariness and discrimination based on political interests and economic priorities, which would reduce the scope and effectiveness of the law.

The State apparatus manages decision-making with a technocratic, administrative and bureaucratic approach to implementation of the policy and of the new Water Law at a central level, with little capacity or willingness to allow users' organisations and local governments to make consultations or to participate. The water resources management structure is mainly sectoral and scattered and prioritizes entrepreneurial land management. There is no balance or fairness to the large number of small-scale producers, consumers, social actors and peasant communities, which are an essential part of the neo-liberal, "extractivist" and agricultural-export economic development model.

There are no transparent participatory, monitoring and control mechanisms in extractive entrepreneurial management, especially in mining companies, in large agricultural-mercantile export production sectors and in new hydroelectric mega-project management.

Civil society actors at national and local level, often with the support of international partners, are more effective than the State to innovate in water management by means of their own integrity policies. Nevertheless, they have little power and recognition and have little impact on the State. Progress in bi-national cooperation in transboundary basins also promotes improvements in river basin management and in integrity and transparency.

Anti-corruption efforts are few and there is a long distance between regulations, official discourses and actual management, a problem that arises from new rules of the game as well as from historical state water management based on technocratic, centralist and sectoral power.

The government addresses the issue of transparency by releasing information related to institutional-sectoral public expenditure and budget execution on the Internet.

The institutional structure of water administration and management is not properly organised and consolidated. In this sense, the water administration and management system and the National Water Authority (ANA) belong to the Ministry of Agriculture and should be transferred little by little to the Ministry of the Environ-

ment; the Water Rights Execution Program (PROFODUA) has serious restrictions in terms of results and effectiveness; the national register of water rights and uses (RADA) is still incomplete and inefficient.

2.6.1 Reforms in water management and IWRM

Globalisation and the international momentum towards more open markets call for changes in natural resources legislation and, especially, for launching a "modernisation" process in the water sector. The most important changes occurred after the new Water Law was approved and after the National Water Resources Management System and ANA were implemented (2010).

Establishment of the National Water Authority (ANA), Local Water Administrations (ALA), and of the Administrative Water Authorities has been underway since 2010. The central level of the National Water Authority is responsible for drafting the regulations related to key topics of the Water Law. With funds provided by the World Bank and the IDB, the National Water Authority is launching the Water Sector Modernisation Project in the country.

2.6.2 Mapping of organisations and stakeholders

The following is a list of civil society actors, agencies and public organisations involved in water management and governance.

Public institutions

- National Water Authority (ANA), Water Sector Modernisation Project (PMGRH)
- Ministry of Housing, Construction and Sanitation, and National Superintendence of Services and Sanitation (SUNASS): responsible for setting standards and for regulating, supervising and overseeing sanitation service delivery.
- *Central Board of Environmental Health* (DIGESA), technicalregulatory agency of the Ministry of Health, involved in water quality control related to basic sanitation, occupational health, food hygiene, zoonoses and environmental protection.
- The Ombudsman's Office is in charge of monitoring and studying socio-environmental and governance conflicts at national and regional level. It records on a monthly basis socioenvironmental conflicts in the country and critically analyses laws and regulations. It is an important ally in strengthening and monitoring services rendered to civil society, and has direct access to public management and governance of natural resources, environment and cities.
- The High-Level Anti-Corruption Commission (Public Ministry and Ministry of Justice)
- Regional Governments: the most advanced at basin level are: Arequipa, Ayacucho, Abancay, Cusco, Cajamarca, Lambayeque, Piura and San Martin.
- Network of Rural Municipalities of Peru (REMURPE): actors and institutions interested in capacity development in water management and in integrity and transparency.

Civil Society

 Peruvian Center for Social Studies (CEPES): carries out research on water governance and transparency.

- Waterfor the People Peru: promotes community participation in and co-management of the rural drinking water and sanitation system with integrity and transparency.
- IPROGA National Network (Institute for Water Management Promotion): promotes and facilitates debate on integrity and transparency in water management; it is staffed with specialists to help strengthen policies, strategies and capacity development.
- Center for Andean Regional Studies "Bartolomé de las Casas", Cusco: involved in research, training and post-graduate education, community strengthening, etc.
- National Anti-Corruption Network with the Anti-Corruption School ("Proética" Project supported by USAID): engaged in national and regional mobilisation and training.
- Community Proposal Network: community control and transparency in the extractive industry.
- DAR Organisation (Environmental Lawand Natural Resources): strengthens transparency and participation in the energy and mining sector, with emphasis on environmental impact assessment.
- ANEPSSA Peru, the National Association of Sanitation Service Providers of Peru: a trade union of drinking water supply companies which provides services and water management training to its affiliates.
- FENTAP, National Federation of Water and Sanitation Workers of Peru: provides capacity development to its affiliates and is engaged in company development with workers' and civil society's participation, in organising campaigns on legislative initiatives for improved, fair and equitable water management at national level, and in promoting integrity and transparency in water management.
- JNUDR, *National Board of Irrigation Users of Peru*: provides training and capacity development in IWRM and water governance to irrigation associations.
- CONVEAGRO, the *National Convention of Peruvian Agriculture*: supports and facilitates training to agricultural organisations. It is very much concerned with integrity and transparency in land and water governance, water safety and equitable access to water for small and medium-scale farmers.
- CAN (Andean Community of Nations) and UICN (International Union for Nature Conservation): develop and strengthen projects on governance in transboundary basins with financial support of the COSUDE. UIN also develops a network project (Leadership Strengthening on Shared Water Governance and Management) with public sector institutions and social organisations of Peru, Bolivia and Ecuador.

Educational sector and research centers

They include: Universidad Nacional Pedro Ruiz Gallo (Master's Degree in IWRM in Lambayeque), Universidad Ruiz de Montoya de Lima (Master's Degree in Science and Politics—Public Administration), Universidad Católica (Master's Degree in IWRM), Universidad Agraria La Molina (Master's Degree in IWRM), Universidad de Puno, Cusco y Arequipa, UE with Wageningen University ("Umbrella" Latin American Project—Programme ALFAIII).

• Centre for Development Studies and Promotion, DESCO -

- Southern Regional Programme: responsible for strengthening social water management and for organising the new River Basin Councils (in Arequipa) with strong emphasis on community participation and oversight by users' organisations, peasant communities, local management committees and rural municipalities.
- C Water Consortium Social Water and Environmental Management Program in River Basins (GSAAC): training and capacity development network for IWRM at micro-basin level and basin level.
- CARE-Cajamarca: implemented an environmental retribution system at the Lambayeque river basin where integrity, transparency and accountability are promoted and applied by all actors involved.
- Consortium for Andean Development, CONDESAN
- Cajamarca River Basin Institute
- Montaña-Huaraz Institute
- Centro IDEAS-Norte
- CEDAPAS, Ecumenical Center for Promotion and Social Action North
- The "Huamán Poma Center", Cusco, strengthens management and local water governance in the basin and in Valle Sur de Cusco.

Platforms, service providers and other governance measures

- Regional Water Support Institute, IRAGER-Piura
- "Yacunchic-Ayacucho"
- Different IWRM regional technical groups linked to regional governments
- Regional Mining Commissions (CAR)
- Muqui Network oversees management activities of mining companies
- *UNDP-Peru* focuses on governance and integrity and monitors sustainable human development in Peru and publishes annual reports

Drinking water supply and sanitation companies (*EPS*)-SEDAPAL of Lima or of Arequipa servicing almost 40 per cent of the population of Peru.

2.6.3 Capacity development needs and target groups

Officials of the ANA represent a strategic target group for training activities focused on implementation of a new water law. It is also important to strengthen capacities for the IWRM Modernisation Project, to regulate and formalise water rights, to organise agricultural users, and to ensure consistency and transparency in inter-sectoral water management.

Public officials of the ALAs and of Regional Governments represent another target group for strengthening integrity. The level and reality of Regional Governments in the decentralisation process and their new role in implementing IWRM in future River Basin Councils represent a strategic entry point.

The Ministry of the Environment (MINAM) encourages protection of the environment, of water-based ecosystems, of nature and of the people with a more participatory style. Efforts should be made

to strengthen not only environmental governance to protect water and water sources through active community and users' participation but also transparency in the public administration involved (EPSAS, municipalities).

NGOs and their networks/platforms, lawyers, consultants/advisors with legal, anthropological and environmental specialisation, officials, representatives of indigenous and peasant organisations, peasant communities, small-scale producers, irrigators' commissions and committees, should be trained in water integrity and transparency issues, water users' rights, customary rights and implementation of mechanisms, procedures and regulations. The proposal does not purport to spread integrity as information but as an exercise, an application and a practice.

EPSAS' officials and technical personnel as well as peasant communities that render environmental services, municipalities in downstream villages and irrigators' organisations should be trained in the use of drinking water and sanitation with a watershed approach.

Unions at national level and their regional offices comprise a target group, and probably a pressure group (JNUDR, CONVEAGRO), that should be trained to promote and oversee integrity and transparency in water management and governance.

2.7 Water governance in Uruguay

Uruguay was the first country in the world to recognise drinking water and sanitation rights. This was embodied in the Constitution, whose article 47 was amended in 2004 to stipulate that environmental protection is an issue of general interest and that "access to drinking water and sanitation are fundamental human rights". A process was then undertaken to develop a series of regulations to comply with this mandate. One such regulation is Law 18610 that was enacted in 2009 to regulate Art. 47 of the Constitution and establish the basis of the National Water Policy.

The main instruments and regulations for integrity and transparency in water management in Uruguay are:

- 1. Constitution of the Republic of Uruguay (1967, amendment of Art.47 in 2004): stipulates that access to drinking water and sanitation are fundamental human rights
- 2. Law 18610 (2009): regulates paragraph 2 of Art. 47 of the Constitution; lays down the basis for a National Water Policy based on water sustainability, integrated and decentralised water management, water use efficiency, social participation, etc.
- 3. Law 18564 (2009): regulates soil and water conservation and management aspects.
- 4. Law 18308 of Land Use Planning and Sustainable Development (2008): defines the instruments and powers of the Dirección Nacional de Ordenamiento Territorial (DINOT) (National Land Use Planning Directorate) which are crucial to coordinate water management with a watershed approach.
- Law 18621 (2009): defines and regulates the National Emergency System which coordinates community, property and environmental protection in the event of possible or actual disasters or of water surpluses or shortages.
- 6. Law 18567 (2009, amended by Law 18644 in 2010) Land Decentralisation and Community Participation: defines a national framework to ensure community participation.

- Water Plan (2009): plan for Integrated Water Resources Management
- 8. Decrees 262, 263 and 264 (2011): lay down the creation of Regional Water Councils in the Uruguay River Basin, Merín Lake Basin, Atlantic Ocean and Maritime Front Basin
- 9. Law 18381 (2008) Law of Access to Public Government Information (Art. 1 and 3): promotes transparency in the administrative functions of public agencies and ensures the right of access to public information.
- 10. Law 17008 (1998): ratifies the Inter-American Convention against Corruption (CIC)
- 11. Law 18056 (2005): ratifies the United Nations Convention against Corruption (CNUC)
- 12. Law 17060 (1998): stipulates the creation of the Transparency and Public Ethics Board (JUTEP) to promote transparency in public administration and implement preventive measures in the fight against corruption.
- 13. Decree No. 30 of 23/01/2003: regulates rules of conduct in public administration.

In Uruguay, integrity and transparency are present in the regulatory and institutional framework that reflects the commitments made by state organisations. For instance, in order to comply with the commitments acquired by the country in the international arena, it was decided to set up the *Transparency and Public Ethics Board* in 1998 to ensure compliance with international agreements (CIC and CNUC).

As regards water management, the *Regulatory Entity for Power* and *Water* (URSEA) was created in 2002 to protect users' rights to power, fuels and water through regulation, control and counseling.

In 2010 the state-owned national utility, *Water Supply and Sanitation* (OSE), pledged to adhere to the general principles laid down in the Global Compact on human rights, labor standards, the environment and anti-corruption (principle 10). OSE's website provides updated information on tariffs, volumes and tenders, on resolutions of the Board of Directors, and on financial statements and performance reports. Purchases involving large amounts of money are made through public tenders and employees joining OSE's administration are selected through open competition published in mass media.

The Corruption Perception Index for Uruguay, published by Transparency International, shows that in 2012 Uruguay and Chile shared the best score in Latin America and ranked twentieth worldwide.

2.7.1 Water management reforms and IWRM

Uruguay has vast water resources throughout its territory. This has allowed the country to ensure access to drinking water supply and facilitate development of water-related activities in the production, industrial, tourist and recreational sectors.

Water management, both in terms of drinking water supply and sanitation and of establishing a registry of water permits and water quality control, is in the hands of the State. But in the 1990's drinking water supply was privatised in part of the country.

As privatisation was likely to occur in other parts of Uruguay, state officials, users, companies, civil society organisations and

representatives of political and cultural sectors mobilised into a great social movement for government takeover of water infrastructure from private control.

Some fundamental tools associated with transparency in water management were crucial for this process - spreading information on the difference between private and public services, on tariff structures and on water quality. In fact, the population served by the private sector had to pay higher water charges than those served by the public sector, and cases were reported of non-compliance with water quality standards for drinking purposes. This is what led citizens to push for government takeover of water management. With the endorsement of more than 60 per cent of the population, the *constitutional reform* of 2004 allowed the state to regain control of water resources, to include the concept of the human right to water and to define the concepts and tools to implement an integrated water resources management (IWRM) model.

Since then a new institutional and regulatory model has made it possible to comply with the new constitutional mandate through the incorporation of essential components for integrity in water management, which include the watershed as a management unit and regional councils as participation and governance tools.

Law 18610 enacted on October 2, 2009, established the guiding principles of the current National Water Policy. Following implementation of the law, the government developed the *National Water Management Plan*, which not only includes components associated with IWRM but also lays down provisions for users' and civil society participation in water resources planning, management and control.

During the decade since the constitution was amended, instruments associated with transparency and integrity have played a key role in the significant progress achieved in the implementation of the National Water Policy. First, drinking water supply services in the

whole country were taken over by the State, although recovery of all the shares of *Aguas de la Costa* in the department of Maldonado is still pending; and secondly, regional councils have been summoned to work on the implementation of integrated and participatory water resources management tools.

2.7.2 Mapping of organisations and stakeholders

The National Water Directorate (DINAGUA), within the Ministry of Housing, Land Management and Environment (MVOTMA), is in charge of assessing, administering and controlling surface and groundwater resources in Uruguay. It is also responsible for convening the National Water, Environment and Land Management Council and the Advisory Commission on Water and Sanitation (COASAS) to incorporate the visions of public and private organisations, civil society representatives and users in water policies.

The state-owned national utility, Water Supply and Sanitation (OSE), provides water supply and sewerage services to all of Uruguay with the exception of Montevideo, where OSE provides water services only.

The *Regulatory Entity for Energy and Water* (URSEA) is responsible for regulating water quality, consumer protection, control of drinking water supply to third parties, drinking water production for distribution, and sanitation services (wastewater and sewage collection, disposal and treatment).

Other important actors include the *Transparency and Public Ethics Board* (JUTEP) and the *regional councils*.

At user level, mention should be made of the National Association of Milk Producers (ANPL), the Association of Rice Growers (ACA), the Chamber of Industries of Uruguay (C.I.U.), and the Rural Association of Uruguay (ARU).

Stakeholders	Capacity Development Needs
Users and civil society	Develop capacities to strengthen their role in Regional Water Resources Councils
	Conceptual framework: transparency and accountability in water resources management
	Understanding the regulatory framework and the available information
	Rights of access to information (permits, records, service monitoring networks, bids)
	Participatory management
	Tools for community monitoring of water quality and uses
	Claims/Complaints procedures and dossier tracking
	Water use conflict management
	Water quality / Project and infrastructure works management / Statistics / Permits
State agencies and local authorities	Critical water management transparency issues
dutionities	Water use conflict management
	Relations with users and civil society
	Community management experiences

Civil society organisations include the Union of Dock Laborers, Neighbours Associations, Professional Associations, Environmental Culture, Uruguayan Network of NGOs, National Commission for Water and Life Protection (CNDAV), National Network of Environmental Education (RENEA), and social media.

Research organisations include the University of the Republic, School of Sciences (UDELAR-FCIEN), the School of Agricultural Sciences (UDELAR-FAGRO), and the National Institute for Agricultural and Cattle-Raising Research (INIA).

International organisations involved in integrity and transparency issues include Transparency International and other international agencies such as IBRD, IDB, WB, UNDP, AECID.

2.7.3 Capacity development needs and target groups

It is only recently that this issue has been addressed in the public sphere, but management on the part of users and civil society is not enough. In terms of capacity development to enhance transparency, integrity and accountability, these concepts must be linked with those of water resources management and with the roles and responsibilities of different actors.

The public sector at national, departmental and municipal levels as well as users and civil society are among the groups targeted for capacity development. Training and awareness-raising will help strengthen rural and industrial producers, non-governmental organisations involved in governance, such as Regional Councils, and new third-tier government authorities, such as mayors and council members.

The thematic areas to be addressed relate to roles, rights and responsibilities in water resources management, especially in terms of users' and civil society participation, access to information and records, and scientific and community monitoring networks for water supply and sanitation projects.

2.8 Water governance in Venezuela

Pursuant to the terms laid down in the country's Constitution (CRBV) and in terms of integrity, transparency and the fight against corruption, the Bolivarian Republic of Venezuela has in place seven basic regulatory instruments from which to promote public investment efficiency in national strategic planning:

- 1. Partial Tender Reform Act (DLRPL, 2001), which regulates the procedures for selection of works contractors, asset acquisition, and provision of services.
- 2. Organic Law of Social Responsibility (LOCS, 2010), which provides for development of regulations, instruments and conditions shared by the Government and the People's Power.
- 3. Organic Law of the Office of the Comptroller General of the Republic and of the National Fiscal Control System (LOCGRSNCF, 2010), which regulates the functions of the Office of the Comptroller General of the Republic and of the National Fiscal Control System as well as participation of citizens with control functions.
- 4. Law against Corruption (LCC, 2003), which governs the conduct of both natural and legal persons and/or of officials in the

- administration of justice, based on the 1996 Inter-American Convention and the United Nations Convention Against Corruption.
- 5. Organic Law of Public Administration (LOAP, 2008), which sets out the principles, bases and guidelines that govern the organisation and functioning of public administration, with little direct impact on IWRM.
- 6. Civil Service Statute Act (LEFP, 2001), which provides the regulatory framework to ensure that the National Civil Service is at the service of the community.
- 7. Code of Conduct for Civil Servants (CEFP, 1997), which addresses transparency as the guiding principle in public administration.

Although Venezuela's regulatory framework addresses integrity and transparency issues, it is vital to revise those legal instruments that undermine the fight against corruption, such as the excessive exemptions and exclusions in the Law of Public Contracts (LCP, 2008), and the laws of contempt or sanction of opinion included in the Penal Code (CP, 2000), which the Inter-American Convention against Corruption has repeatedly requested to be repealed. Separation of public powers is of the outmost importance to subject the government to transparency, monitoring and control mechanisms. It is also necessary to promote transparency in national statistics, particularly in the IWRM-related reporting systems. A matter of concern to some civil society organisations in Venezuela is the Law of Defense of Political Sovereignty and National Self-Determination (LPSNAN, 2010), which restricts political freedom and makes it difficult to control and monitor government corruption.

In June 2013 a Draft Bill to amend the Anti-Corruption Law, approved at first reading by the National Assembly in 2011, was in place. The draft law was criticised by *Transparencia Venezuela*², an NGO that stressed the need for in-depth discussion of: encouragement and protection of informants, managing conflicts of interests, and declarations of interests, assets and liabilities.

Venezuela has a number of water-sector framework regulations that include: the Organic Law for the Provision of Drinking Water and Sanitation Services (LOPSAPS, 2001); the Organic Environmental Law (LOA, 2006); the Water Law (LA, 2007); and the Environmental Criminal Law (LPA, 1992). Other laws directly related to water resources are: the Law of Coastal Zones (DLZC, 2001); the Organic Law for Land Use Planning (LOPOT, 1983); the Organic Law on Aquatic and Island Spaces (LOEAI, 2002); the Law on Fisheries and Aquaculture (DLPA, 2008) and Law of Land and Agricultural Development (DLTDA, 2005) as partially amended (RPDLTDA, 2010).

2.8.1 Water management reforms and IWRM

The Constitution of the Bolivarian Republic of Venezuela (CRBV) was amended in 1999 to include not only the traditional provisions relating to the country's sovereignty over its aquatic spaces and resources but also provisions on water resources from an environmental perspective (CRBV, 2000). The Constitution stipulates

 $^{^1\,}Go\,to: http://transparencia.org.ve/que-hacemos/monitoreo-a-la-corrupcion/reforma-de-la-ley-contra-la-corrupcion/reforma-de-la-corrupcion/reform$

that water is irreplaceable for life and development and states the need to guarantee in law its protection, use and reclamation; it also promotes the respect for the various phases of the water cycle and for land use planning criteria. The CRBV also lays emphasis on water quality and declares all waters to be public domain, which is a significant departure from the old provisions in the Venezuelan Civil Code (CCV, 1982).

In 2012 the Ministry for the Environment, through the Vice-Ministry for Water Resources, submitted a first proposal for a National Integrated Water Resources Management Plan (GIA) (MinAmb, 2012). The proposal was based on the seven strategic lines of the 2007-2013 National Economic and Social Development Plan (PNDES, 2007), known as the Simón Bolivar Socialist Plan: 1) protection of water sources; 2) rational and sustainable use of water resources; 3) satisfying current and future water needs; 4) availability of information on and knowledge of water resources; 5) production of national goods and services; 6) education and training of technicians to meet the Plan's requirements; and 7) implementation of water management through the creation of Hydrographic Region Councils. At least conceptually, this Plan is an opportunity to regulate the sector and attend to its needs.

2.8.2 Mapping of organisations and stakeholders

Water management institutions in Venezuela comprise a broad range of public and civil society organisations.

The *Popular Power Ministry for the Environment* (MinAmb), which is the *National Water Authority*, promotes different mechanisms and procedures related to integrity and shared water management. The MinAmb's leadership and management have been instrumental in the development of several plans and projects whose effective implementation, however, will depend on the coordination of the different actors involved.

The Office of the Comptroller General of the Republic is responsible for controlling, monitoring and overseeing public governance in the water sector.

Although formally created, the following agencies are not operational yet: I) *National Water Council*: participates in the formulation

of technical standards for water conservation and sustainable use; 2) *Hydrographic Region Councils*: define strategies and specific IWRM regulations in their specific regions; and 3) *Hydrographic Basin Councils*: in charge of preparing, approving, implementing and supervising the proposed IWRM Plan in their respective basins.

Communal Councils, Technical Boards and Irrigation Committees supervise, audit and control delivery of drinking-water, sanitation and irrigation services. There are some 9,000 communal councils and 1,561 technical water boards which are seen as strategic means to monitor IWRM in Venezuela.

Hidroven, Venezuela's state-owned waterworks holding company, performs the functions of the National Office for Development of Water and Sanitation Services and of the National Superintendency of Drinking Water and Sanitation Services until they become operational. Hidroven is responsible for turning over to metropolitan districts or municipalities the services rendered by the National Executive. Seventeen utilities around the country are currently affiliated with Hidroven. Its last management indicators date back to 2008.

Non-governmental organisations such as Transparency Venezuela and Public Space have specific programs against corruption. Venezuelan Penal Forum, VITALIS, and the Aguaclara Foundation also have anti-corruption programs.

Several *professional associations* (Venezuelan Association for Water, Venezuelan Association of the Groundwater Industry, Venezuelan Association of Engineers, Venezuelan Bar Association) have promoted professional debates and have developed a civil society proposal to regulate the Water Law. *Business associations* such as FEDECAMARAS and COINDUSTRIA have also contributed to these debates.

Deserving special mention are the *social media* which track water-related complaints and provide news coverage of water management issues, especially drinking water safety.

Other relevant social actors include: the National Institute of Indigenous Peoples; the Ministry of Defense; the Public Policy Planning and Coordination Councils; and the Local Public Planning Councils.

$2.8.3\,Capacity\,development\,needs\,and\,target\,groups$

The following table summarises the training needs of target groups involved in integrity and transparency in the Venezuelan water sector.

Target Groups	Capacity Development Needs
Communal councils Neighborhood associations NGOs Professional associations Local planning councils	Training of organised citizens in monitoring different government levels, technical operations, facilities maintenance, transparency in the use of financial resources and accountability, compliance with tender procedures, and development of sector-related projects.
Executive Office of the Judiciary Judges, District attorneys, Lawyers Court officials Ombudsman's Office Victim Assistance Units (TSJ) Municipal, State and National audit officials Users' associations Journalists/ Social media	Judicial training to develop the special environmental jurisdiction; stakeholder training in the legal, legislative and auditing processes available in the current legal framework and in relevant institutions in order to promote their active participation when transparency of drinking water and sanitation services is called into question.
MinAmb State-owned water companies Municipalities/State governments	Strengthening governance systems that promote equitable and transparent participation of different government agencies, with independent judgement, continuous supervision, and free from partisan politics; and capacity development related to the importance of integrity and transparency in IWRM.
Users' Associations Journalists/Social media	Raising awareness of the importance of setting up the institutions included in the current legal framework in order to provide administrative and supervisory support and control to IWRM in the country.
Legislative officials National Water Authority officials Municipal officials	Updating legal regulations that provide technical and legal support to IWRM and promote integrity and transparency in the water sector.

3. IWRM and Integrity Promotion

The phenomenon of corruption is complex and difficult to control. Indeed, the lack of integrity manifests itself at different levels in our society and involves multiple actors that respond to endless individual and group motivations. For example, it is possible to identify the different levels of intervention in the States and in their administrative bodies, which vary from country to country.

The size and incidence of corruption is usually attributed to four factors: (a) the level of public benefits available; (b) the discretionary powers of public officials; (c) the level of risk associated with corrupt deals; and (d) the relative bargaining power of the corrupter and corruptee. According to the unanimous opinion of experts, however, the causes of corruption are: (a) norms and values of politicians and public servants, (b) lack of control, supervision, and auditing, and (c) business, politics and state interrelationships (McCusker, 2006).

Indeed, the framework is too general to be adapted to any social activity; nevertheless, it does represent the vulnerability of social systems to corruption. The water sector, with all its complexities, is fertile ground for corruption. The weakness of the water sector is patently clear because of the large investments involved (high level of public benefits, particularly in irrigation and hydropower generation). In many cases broad administrative discretion is due to limited sectoral regulations or to multiple authorities with overlapping powers. As all of the above reduces legal certainties for water sector actors, there is much room for corruption.

The water sector in many countries of the region is characterised by sectoral state interventions, if any. Each public agency has its own viewpoints and special powers, which lead to a lack of institutional coordination, while on the other hand some countries have regulated the water sector efficiently but failed in the implementation phase. This is the reason of the relatively low institutional quality of water management. At the local - even country - level, there are different political dynamics at play with some stakeholders wielding more power than others. Due to institutional and management weakness, the most powerful groups, as is the case of large or small-scale farmers, electric power producers, the mining industry, indigenous peoples, etc., gain even more power. Realities differ between river basins, so these dynamics may vary within the same country, which reflects a weak aspect of water management: governance. Therefore, levels of transparency, accountability, participation and access to justice can be very low. In some cases, these mechanisms are formally included in national laws but lack effective implementation so the overall impression is one of ineffective governance.

There are at least three schools of thought on corruption reduction and prevention. The first is *interventionism*, which is based on ex-post punishment of corrupt actions; the second is *managerialism*, which holds that those seeking to engage in corrupt behavior can be discouraged or prevented from doing so by establishing appropriate systems, procedures and protocols; and the third is *organisational integrity*, which involves the integration of an organisation's operational systems, corruption control strategies and ethical standards so that a norm of ethical behavior is created (McCusker, 2006).

Integrated Water Resources Management (IWRM), defined as "... a process which promotes the coordinated development and management of water, land and related resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems and the environment" (GWP, 2000), is not conceived as an anti-corruption strategy for the water sector but works perfectly as a management strategy. Indeed, the essence of IWRM is to manage infrastructure development, water distribution, efficient water use, water resources protection, and funding (Lenton and Muller, 2009).

The above requires a new water governance and management paradigm, one which promotes "a greater involvement of those interested in water development and management..." (GWP,2000). In practical terms, in addition to allocation of financial resources, IWRM involves creating an enabling environment for water management by implementing guiding policies and translating them into laws. It also involves developing institutional roles and institutional capacity with a view to setting up an organisational framework and creating management tools, such as water resources assessments, plans, demand management, instruments of social change, conflict resolution, regulatory instruments, economic instruments, exchange of information, etc.

IWRM—at least as regards the more recent legislative changes—has been strongly embraced and adopted by many countries in the region. Argentina (the Autonomous City of Buenos Aires), Nicaragua, Honduras, Peru, Uruguay and Venezuela have included the IWRM concept in their respective water laws. This incorporation is not merely declaratory, in fact different water governance mechanisms have been adopted for integrated management. Participation in Nicaragua is considered a guiding principle for water resources. River Basin Councils have been set up in Honduras and Hydrographic Region Councils in Venezuela (Hantke-Domas, 2011).

IWRM proposes a water governance model that seeks to render water management more transparent by demanding accountability from all participating actors. The fight against corruption is a strategy to be factored in so as to take advantage of the social control options available through IWRM.

4. Potential Areas for Intervention

According to Transparency International (Perception Index, 2008), the problem of corruption in the region, as in other parts of the world, is on the increase. Although the index simply reflects a general perception of the regional situation, it should prompt us to question the efficacy of regional efforts to eradicate this type of behavior.

The case studies presented here show that the countries in the region have, to a greater or lesser degree, gradually incorporated international integrity promotion tools. However, contrary to what could be expected, corruption perception indexes are inversely proportional to that effort.

The case of the water sector is subsumed within the increasing perception of lack of integrity in the region. There are neither national nor regional specific water sector assessments so, despite the said lack of assessments, if general corruption perception indexes in the region are on the rise, there is no reason why the water sector should be any different. In fact, the literature shows opportunities for corrupt behavior stimulated by large investments in drinking water, sanitation, hydropower and irrigation projects.

The case studies show that awareness of the problem is transversal and low in the countries under study, where, save rare exceptions, the water sector is not particularly relevant in the fight against corruption. It may then be assumed that corruption in the region affects the water sector and this would in part explain its low efficiency indexes. It is true that at an aggregate level the region has attained the Millennium Development Goals, but it is also true that, in many cases, they were met thanks to less demanding goals, as is the case of improved sources. Statistically, however, investments in the drinking water and sanitation sector have dropped, showing that the sector is not given political priority and that opportunities for corruption are greater.

Based on the above, it follows that it is necessary to raise awareness among all social levels of the need to fight corruption in the water sector. This involves building awareness among decisionmakers (agencies, as well as regulatory agencies, responsible for public policies) through advocacy for water integrity and training. This opportunity should be extended to other pertinent groups such as private and public companies, consumers, non-governmental organisations engaged in integrity promotion, etc. The same applies to multilateral organisations that become involved in the water sector through the provision of funding (IDB, WB and LADB); if these agencies can adopt uniform integrity promotion and corruption prevention mechanisms, it means that there will be an additional regulatory and political framework besides the corruption control strategy. Each of these organisations has its own high investment control standards, but lack of coordination among them leaves loopholes and allows local authorities who wish to circumvent exacting standards in certain areas to make discretional use of water.

The awareness raising process should end in the adoption of public commitments in management instruments, such as the acknowledgment of guiding principles in national water policies, integrity pacts, etc.

The fight against corruption must be extended to other sectors such as drinking water and sanitation, hydropower, irrigation and environmental management. They all exert different impacts on water use and they are all equally prone to a lack of integrity. Private companies must be involved in this effort since corruption leads to additional costs that lower their competitiveness (provided they wish to be competitive and that corruption does not bring them greater benefits).

The countries of the region are adopting international anti-corruption instruments. Most of them have introduced governance standards (transparency, participation, accountability and access to justice) and integrated water resources management as a management model. Nevertheless, levels of implementation differ and in some countries the introduction of integrity instruments is shown to be only present at the level of speech, but not really at the level of formal application. This is extremely harmful because it turns the fight against corruption into a speech devoid of any real impact, and people seeking to eradicate the scourge of corruption tend to lose interest. Hence, it is crucial not only to participate in the promotion and adoption of anti-corruption policies but also to devise follow-up mechanisms for implementation processes, such as audits and institutional benchmarking.

5. Recommendations and Conclusions

If the case studies are considered as a more or less representative sample of the situation in Latin America, it may be concluded that the region is a fertile ground for promoting integrity in the water sector, not only as an ethical position but also as a tool to improve water management at local, national and regional levels. In general, the countries of the region are adopting anti-corruption standards. However, this does not hold for the water sector where corruption issues have not been included in sectoral policies.

Thefightagainstcorruptioninthewatersectorsharesacommon denominator with the general fight against corruption, which is to reduce opportunities for illicit enrichment of public officials. The literature reviewed shows how a lack of integrity manifests itself in all water-related areas; therefore, integrity promotion in the region is critical. According to the 2013 Global Corruption Barometer, it is public institutions, to which protection of society is entrusted, that have the highest bribery levels. In Latin America, where water is largely managed by public institutions, prospects are not optimistic unless a number of decisive actions are undertaken to put an end to this scourge.

In view of the above, a number of specific recommendations are proposed for Latin America to promote integrity in the water sector. These recommendations are intended only as an indication of possible initiatives that the countries in the region could fully or partially implement.

Public policy recommendations

- Integrity promotion campaigns addressed to members of parliament interested in water and corruption prevention issues, officials engaged in water management and in corruption prevention and detection (ministries, regulatory agencies, municipalities, federated governments, anti-corruption agencies, judiciaries) and other bodies, such as river basin councils.
- 2. Inclusion of corruption issues in public policy instruments (v.g., national water policies, management plans, sector laws).
- 3. Consensus among international credit agencies (IDB, WB, CAF) about corruption control policies in the region
- 4. Inclusion of integrity principles and procedures in IWRM policies.
- 5. Private sector involvement in pacts against corruption in the water sector.
- 6. Promotion among water users of the creation of a culture of integrity, such as commitment to end bribery of public officials.
- 7. Public commitments to reject and punish grand corruption (produced at the highest levels of public administration to change political, legal and economic processes in favor of individual interests or to the benefit of power groups).
- 8. Assurance of the independence and separation of the Executive, Judiciary and Legislative powers of the State, and removal of all obstacles to community participation.

Regulatory recommendations

1. Extrapolation of international laws on corruption and water integrity principles to national/federal, provincial, departmental and local regulations. For instance, adoption of water supply standards pursuant to article 9 of the United Nations Convention against Corruption (UNCAC).

- 2. Legislation encompassing the responsibilities of collegiate bodies and of political or economic organisations (associations).
- Codes of ethics for public officials involved in water management.
- 4. Procedures to monitor implementation of integrity and governance principles (participation, transparency, accountability, access to justice) in order to ensure that adoption of regulations is more than just a statement of good intentions. Development of integrity indicators to assess progress is of the utmost importance.
- 5. Benchmarking of integrity indicators among water institutions and companies.
- 6. Corruption prevention, detection, investigation, punishment and court proceedings.
- 7. Creation of anti-corruption agencies throughout the country, and decentralisation of related bodies, such as comptroller's offices and attorney general's offices.
- 8. Repeal of all laws such as contempt laws that punish corruption informants.

Capacity development recommendations

- 1. Training in integrated water resources management, including the integrity dimension at all levels and sectors.
- 2. Working with unions, non-governmental organisations, and universities so as to develop capacities of community control over corruption and render public officials accountable when they stray away from the ethics of integrity.
- 3. Training the Judiciary and special units in felonies related to corruption in the water sector.
- 4. Gathering the largest number of national water-related sectors to develop a shared vision of the above measures (and other measures) which must be urgently adopted to prioritize the integrity action according to each national reality.

References

- Aarnoudse, Eefje, y Sarah Belalia. «Why water integrity matters for food security.» Water Integrity Network. 2012. http://goo.gl/uDDJV (último acceso: 05 de junio de 2013).
- Ackerman, John (2004) "Social accountability. An introduction to the concept and emerging practice", The World Bank, social development papers. Participation and civic engagement, paper No 76, London.
- Benedict, Mark, y McMahon, Edward. «Green Infrastructure: Smart Conservation for the 21st Century.» Renewable Resources Journal, 2002: 12-17.
- GWP. Integrated Water Resources Management. TAC Background Papers No. 4, Estocolmo: Global Water Partnership, 2000.
- Hantke-Domas, Michael. Avances legislativos en gestión sostenible y descentralizada del agua en América Latina. Documento de proyecto, Santiago: Cepal, 2011.
- Isunza, Ernesto y Gurza, Lavalle Adrian (2010) "Precisiones conceptuales para el debate contemporáneo sobre la innovación democrática. Participación, controles sociales y representación" in: Isunza, Ernesto y Lavalle Gurza, Adrian (coordinators), La innovación democrática en America Latina. Tramas y nudos de la representación, la participación y el control social, CIESAS México, Universidad Veracruciana.
- Lenton, Roberto, y Muller, Mike. «Introduction.» En Integrated Water Management in Practice: Better water management for development, de Roberto Lenton y Mike Muller, 1-16. London: Earthscan, 2009.
- McCusker, Rob. Review of anti-corruption strategies. Technical and background Paper No. 23, Camberra: Australian Institute of Criminology, 2006.
- O'Donnell, Guillermo (2007) Disonancias. Criticas democráticas a la democracia, Edición Prometeo libros. Buenos Aires.
- Schedler, Andreas (2004) "¿Qué es la rendición de cuentas?", en: Cuadernos de transparencia núm. 3 Instituto Federal de Acceso a la Información Pública Gubernamental, México.
- Smulovitz, Catalina (2001) Judicialización y Accountability Social en Argentina, Paper presented at the XXII International Conference of the Latin American Studies Association. Washington D.C.
- Stålgren, P. Corruption in the Water Sector: Causes, Consequences and Potential Reform. Swedish Water House Policy Brief Nr. 4, SIWI, 2006.

- Transparencia Internacional. «Barómetro Global de la Corrupción 2010.» Transparencia Internacional. 2010. http://goo.gl/bvirl (último acceso: 04 de junio de 2013).
- Transparencia Internacional. 2008. Índice de percepción de la corrupción. Informe Regional: América. www.transparencia.org.es/IPC%C2%B4s/IPC_2008/Am%C3%A9rica.pdf (último acceso: 02 de junio de 2013).
- UNDP (2010). Fighting Corruption in the Water Sector. Methods, Tools and Good Practices. Democratic Governance Group. New York.
- Water Integrity Network. «Advocating for integrity: How fighting corruption in the water sector saves lives.» Water Integrity Network. 2010. http://goo.gl/6AvwV (último acceso: 08 de junio de 2013).

Annex 1: Comparative analysis of water integrity in eight Latin American countries

Country	Mapping of actors	Reforms in water manage- ment and IWRM	Legislation, public policies, programmes	Target groups and capacity development needs
Argentina	 Sub-secretary for Water Resources (Ministry of Federal Planning, Public Investment and Services); Planning Agency (APLA); Federal Water Council (COHIFE); Federal Council of Sanitation Organisations (COFES); Federal Association of Water and Sanitation Regulatory Agencies (AFERAS). Anti-corruption Office; Office of the National Comptroller (SIGEN); National General Auditing Office (AGN); Permanent Forum of Prosecutor Offices for Administrative Investigations and Anti-corruption Offices; Provincial Directorate of Public Sector Transparency and Anti-corruption (Santa Fe). Drinking water and sanitation operators. Argentine Association of Sanitation Engineering and Environmental Sciences (AIDIS Argentina); "The Water Observatory" (Santa Fe); Nuestra Mendoza and Nuestra Córdoba; Metropolitan Foundation; OIKOS Ambiental (Mendoza). 	Water Policy Principles". Creation of the Federal Water Council (COHIFE) in December, 2002, enacted by National Law No.26.438 in January 2009.	 Law of Civil Service Ethics (No.25.188, 29-09-1999). Law of the Civil Service Basic Legal System (No.22.140). Law creating the Anti-corruption Office (No.25.233, 10-12-1999). Law creating the Office of the National Comptroller (SIGEN) and the National General Auditing Office (AGN) (No. 24.156, 1992). Laws ratifying international agreements: Inter-American Convention against Corruption of the OAS (Law No.24.759, 4-12-1996); United Nations Convention against Corruption (CNUCC) (Law No.26.097, 10-05-2006); Law approving the International Pact against Transnational Bribery (No.25.319). Laws of Environmental Protection Minimum Standards (Art.41 CN). 	COHIFE: helps build awareness of integrity, the human right to water, IWRM and organisational culture. Provincial and municipal drinking water supply and sanitation companies and small-scale operators: integrity and accountability; ethics and organisational culture. NGOs: networking; workshops to identify vulnerabilities to corruption. Irrigation organisations: integrity and organisational culture within the local context.

Country	Mapping of actors	Reforms in water manage- ment and IWRM	Legislation, public policies, programmes	Target groups and capacity development needs
Brazil	 SINGREH: Ministry of the Environment (MMA); Ministry of Planning and Budget (MPOG); National Water Agency (ANA); National Water Resources Council (CNRH); and Water Resources Councils of the States. Corruption Prevention and Strategic Information Office (CGU); Court of Auditors Social movements; River Basin Committees Non-governmental organisations: Brazilian Forum of Non-governmental Organisations and National Forum of Transparency and Social Control Technical-scientific organisations: Brazilian Water Resources Association; National Confederation of the Industry through its Water Resources Network 	Federal Constitution of 1988: water as a public good; creation of the National Water Management System (SINGREH) The Water Law, Law 9.433/97 regulates article 21 of the Constitution through the establishment of the National Water Policy (PNRH) and the creation of the National Water Authority (SINGREH). According to the new policy, water is a public good, the basin is the land unit for implementation of the National Water Policy, and water management must be systematic, decentralised and include government, users' and community participation	 Water Code (1934), Law No. 9.433/97 setting up the National Water Policy (PNRH) and providing for the creation of SINGREH; supplementary law No. 9984 (2000) providing for the creation of ANA; and supplementary laws No. 12.058 (2009) and No. 10.881 (2004) International agreements: Open Government Alliance; United Nations Anti-corruption Convention Agreement (ONU); Convention of the Organisation of American States (OAS); Convention of the Organization for Cooperation and Economic Development (OECD) Transparency Law (Law No. 12.527, 2011); Law of Access to Information and Law of Fiscal Responsibility Brasil Transparente Programme; First National Conference of Transparency and Social Control (CONSOCIAL); Transparency Portal; "Where is the Public Money" Programme; Second Brazilian Action Plan (May 2013) 	 Executive secretaries of National Councils, Councils of the States and River Basin Committees National officials, States officials and representatives from different river basin committee sectors (civil society and users) Training in: a) representation and representativeness with an integrity / accountability approach; b) institutional framework and management tools with an integrity/ accountability approach; c) financial flows in management with an integrity/accountability approach Municipal officials, local leaders and municipal public agents; teachers and students Building awareness of the importance of transparency in public administration, responsibility and compliance with legal provisions

Country	Mapping of actors	Reforms in water manage- ment and IWRM	Legislation, public policies, programmes	Target groups and capacity development needs
Colombia	 Integrated Water Resources Management Office; Autonomous Regional Corporations (CAR); National Planning Department (DNP); Drinking Water Supply and Basic Sanitation Regulatory Commission (CRA) Office of the Comptroller General of the Republic; Attorney General's Office of the Nation; Superintendence of Residential Public Utilities; National Agency for Public Contracts; Attorney General's Office of the Nation (National Anti-corruption Unit); Ombudsman's Office; Transparency Secretariat Organisations of the civil society: Transparency for Colombia; Private Competitiveness Council; NGO for Transparency; and National Association of Entrepreneurs of Colombia (ANDI). International agencies: IDB, World Bank, United Nations. 	National Water Resources Management Policy (2010)	 Law 1474 (2011): "Anti-corruption Statute" Law 80 (1993): Statute for General Public Sector Contracts Law 850 (2003): Community oversight of public administration Draft law on Transparency and the Right of Access to National Public Information. Project 2779 of the National Council of Economic and Social Policy (CONPES) (1995) promotes civil society participation Project 3072 CONPES (2000) seeks to systematise and socialise public information through the use of information technologies. Project 3248 CONPES (2003) regulates the Public Administration Renovation Program (PRAP) and seeks to rationalise administrative functions. Project 3186 CONPES (2002) promotes efficiency and transparency in public contracts Project 3654 CONPES (2010) renders the Executive Branch accountable to citizens seeking to organise actions in terms of accountability. Adoption of international agreements: Convention against Foreign Civil Service Bribery in international commercial transactions; United Nations Convention against Corruption; Inter-American Convention against Corruption; Inter-American Convention against Corruption of 1996 Creation of the Mission for Ethics and Efficiency in Public Administration (1991); creation of the Transparency Secretariat (2011); Anti-corruption Observatory; Ventanilla Unificada de Denuncias; Electronic System for Public Contracts 	Public Water Organisations: capacity development in IWRM and organisational culture NGOs: capacity development to raise awareness of integrity, ethics and the human right to water.

Country	Mapping of actors	Reforms in water manage- ment and IWRM	Legislation, public policies, programmes	Target groups and capacity development needs
Costa Rica	 National Technical Environmental Secretariat (SETENA); Ministry of the Environment and Energy (MINAE); Ministry of Health; Public Service Regulatory Authority (ARESEP); Ministry of Agriculture and Cattle-Raising (MAG); Costa Rican Institute of Aqueducts and Sewerage (AyA); National Groundwater, Irrigation and Drainage Service (SENARA). Ombudsman's Office of the Republic (DHR); Office of the Comptroller General of the Republic; Attorney's Office of Public Ethics; Administrative-Environmental Court Operators: Costa Rican Institute of Aqueducts and Sewerage (ICAA); Public Utilities of Heredia (ESPH S.A.); municipalities; Rural Aqueduct Administrators' Committees (CAARs) and Aqueduct and Sewerage Rural Administrators' Associations (ASADAS) Civil society participation: Natural Resources Vigilance Committees; Civil Society Bureau; National Conservation System (MINAE) Third-sector organisations: Integrated Development Associations; NGOs Alliance for Water for Costa Rica and Center for Environmental and Natural Resources Law (CEDARENA) 	Amendment of the Water Law is still pending. Several draft laws are currently being discussed.	 Political Constitution: water as a strategic resource for social, cultural and economic development in the country. Article 11 of the Political Constitution (2000) refers to accountability and control of public results Water Law (Law No. 276); General Health Law (Law No. 5395); Organic Environmental Law (Law No. 7554, 1995); Framework Law on Concessions for the use of Hydraulic Forces; Executive Decree No. 30480-MINAE (2002); Law of Soil Use, Management and Conservation (Law No. 7779, 1998) Law against Corruption and Illicit Enrichment in Public Office (Law No. 8422, 2004) National Water Policy (2009); Strategy for Integrated Water Resources Management (2006); National Water Resources Integrated Management Plan (PNGIRH 2009) Ratification of the Inter-American Convention against Corruption (1997), and United Nations Convention against Corruption (2003) Online water concession systems allocation 	 National Conservation Area System (SINAC-MINAE) and Civil Society Bureau: integrity, the human right to water and IWRM Natural Resources Vigilance Committees (COVIRENA), and Water Sector NGOs: workshops for identification of vulnerabilities to corruption; conflict resolution and transparency

Country	Mapping of actors	Reforms in water manage- ment and IWRM	Legislation, public policies, programmes	Target groups and capacity development needs
Mexico	 National Water Commission (Conagua, Semarnat); Drinking Water, Sewerage and Sanitation Decentralized Agencies (ODAPAS); Advisory Water Council. Federal Institute of Access to Public Information (IFAI); Office of the Municipal Comptroller; Office of the Comptroller; municipalities. Water Committees; Coalition of Mexican Organisations for the Right to Water (COMDA); First National Assembly in Defense of Land and Water and against their Privatisation. Online UNDP School; WIN. 	Creation of the National Water Commission (Conagua) in 1989. In 2012 Article 4 of the Constitution was amended to stipulate that everyone has the right to sufficient, safe, acceptable and physically accessible and affordable water for personal and domestic uses.	 Federal Law of Transparency and Access to Government Public Information (2003): creation of the Federal Institute of Access to Public Information (IFAI) Guidelines related to Transparency, National Accountability Program, Transparency and Fight against Lack of Integrity, and General Administrative Manual on Transparency (CNA, 2013) National Water Law (LAN 2011) Amendment of articles 103 and 107 of the Political Constitution of the United Mexican States (2011): modernisation of the "amparo" suit "Pact for Mexico", a national political covenant (2012) that aims to: 1) implement the accountability reform; 2) expand the powers of the IFAI; and 3) create a national integrity system 	 Water Committees: development and consolidation of organisational structures; raising awareness among the population of transparency and accountability issues. Coalition of Mexican Organisations for the Right to Water (COMDA): promotion and control of integrity and transparency in water management and governance Water sector officials (Conagua and ODAPAS): IWRM and organisational culture State officials and professionals specialised in water and environmental law: design of public policies that incorporate integrity and transparency Government agencies with competence in accountability and access to information (IFAI, Office of the Municipal Comptroller, Office of the Comptroller General): transparency and integrity related to IWRM.

Country	Mapping of actors	Reforms in water manage- ment and IWRM	Legislation, public policies, programmes	Target groups and capacity development needs
Peru	 National Water Authority (ANA); Ministry of Housing, Construction and Sanitation and National Superintendence of Services and Sanitation (SUNASS); General Directorate of Environmental Health (DIGESA); Ombudsman's Office; High-level Anti-corruption Commission; Regional Governments. Network of Rural Municipalities of Peru (REMURPE). Civil society organisations: CEPES; "Water for the People"-Peru; IPROGA National Network; Center for Andean Regional Studies "Bartolomé de las Casas"; National Anti-corruption Network with the Anti-corruption School; "Propuesta Ciudadana" Network; DAR; ANEPSSA Peru; FENTAP; JNUDR; CONVEAGRO; CAN; UICN; COSUDE. Educational sector and research centers: National University Pedro Ruiz Gallo, Ruiz de Montoya de Lima University, Católica University, La Molina Agricultural University, Puno, Cusco and Arequipa University, UE with the Wageningen University; Center for Development Studies and Promotion; C Water Consortium- Water and Environmental Social Management Programme in River Basins (GSAAC); CARE-Cajamarca; CONDESAN; River Basin Institute-Cajamarca; Montaña-Huaraz Institute; IDEAS-Norte Center; CEDAPAS; Huamán Poma-Cusco Center Platforms, service providers and others: IRAGER-Piura; Yacunchic-Ayacucho; IWRM regional technical groups associated with regional governments; CAR; Muqui Network; PNUD-Peru; EPS and SEDAPAL of Lima or Arequipa 	2009: New Water Law (Law No. 29338). 2010: Implementation of the National Integrated Water Management System and creation of ANA and ALA. Launch of the Water Sector Modernisation Project (PMGRH).	 Information (2003): creation of the Federal Institute of Access to Public Information (IFAI) Guidelines related to Transparency, National Accountability Program, Transparency and Fight against Lack of Integrity, and General Administrative Manual on Transparency (CNA, 2013) National Water Law (LAN 2011) Amendment of articles 103 and 107 of the Political Constitution of the United Mexican States (2011): modernisation of the "amparo" suit "Pact for Mexico", a national political covenant (2012) that aims to: 1) implement the accountability reform; 2) expand the powers of the IFAI; and 3) create a national integrity system 	 ANA: Water Sector Modernisation Project, regulation and formalisation of agricultural water users and coordination and transparency in inter-sectoral water management. ALA and Regional Governments: strengthening integrity in water rights. Ministry of the Environment: capacity development in transparency in public management involving active participation of populations and water users (EPS, Municipalities). NGOs, independent professionals and networks/platforms, indigenous and peasant organisations, small-scale producers, irrigators' commissions and committees: integrity and transparency related to water rights, customary rights, and formalisation processes associated with mechanisms, procedures and regulations. EPSAS, peasant communities that deliver environmental services, municipalities and irrigators' organisations: water use and sanitation with a watershed approach. National labor unions and regional offices (JNUDR, CONVEAGRO): promotion and oversight of integrity and transparency in water management and governance.

Country	Mapping of actors	Reforms in water manage- ment and IWRM	Legislation, public policies, programmes	Target groups and capacity development needs
Uruguay	 State agencies: National Water Directorate (DINAGUA, MVOTMA); National Water, Environmental and Land Council; Water and Sanitation Advisory Commission (COASAS); State-owned Water Supply and Sanitation utility (OSE); Regulatory Entity for Energy and Water (URSEA); Transparency and Public Ethics Board (JUTEP); Regional Councils Users: National Association of Milk Producers (ANPL); Association of Rice Growers (ACA); Chamber of Industries of Uruguay (C.I.U.); Rural Associations: Union of Dock Laborers, Neighbors Associations, Professional Associations, Environmental Culture, Uruguayan Network of NGOs, National Commission for Water and Life Protection (CNDAV), National Network of Environmental Education (RENEA), and social communication media Research: University of the Republic, School of Sciences (UDELAR-FCIEN), School of Agricultural Sciences (UDELAR-FAGRO), and National Institute for Agricultural and Cattle-Raising Research (INIA) International Organisations: Transparency International, BIRF, IDB, World Bank, UNDP, AECID 	Constitutional Reform (2004): drinking water and sanitation services provided by the State; human right to water; concepts and tools to implement an IWRM model; the watershed as management unit; regional councils for participation and governance Law No. 18.610 (2009) sets forth the guiding principles of Uruguay's National Water Policy and National Water Resources Plan	 Constitution of the Republic (1967, amended in 2004): access to drinking water and sanitation as fundamental human rights Law 18.610 (2009) lays down the criteria for a National Water Policy based on the concepts of sustainability, IWRM, etc. Law 18.564 (2009): soil and water conservation and management Law 18308: Land Use Planning and Sustainable Development (2008) Law 18.621 (2009) defines and regulates the operation of the National Emergency System. Law 18.567 (2009, amended in 2010): Territorial Decentralisation and Community Participation; IWRM Water Plan (2009) Decrees 262, 263 and 264 (2011): creation of Regional River Basin Councils Law 18.381 (2008): Access to Public Information Law No. 17.008 (1998) and Law No. 18.056 (2005) ratifying international anti-corruption agreements (CIC, CNUC) Law 17.060 (1998): creation of the Transparency and Public Ethics Board (JUTEP) Decree No. 30/003 of 23/01003 regulates a code of conduct in public service 	Users and civil society: conceptual framework for transparency and accountability in water resources management; understanding the regulatory framework and available information; rights of access to information; participatory management (tools for community monitoring of water quality and uses; procedures for handling complaints/bribes; dossier tracking; water conflict management; project and infrastructure works management, statistics, permits). State agencies and local authorities: water management transparency issues; water use conflict management; connecting with users and civil society; community management experiences

Country	Mapping of actors	Reforms in water manage- ment and IWRM	Legislation, public policies, programmes	Target groups and capacity development needs
Venezuela	 Popular Power Ministry for the Environment (National Water Authority) Office of the Comptroller General of the Republic National Water Council; Hydrographic Region Councils; Hydrographic River Basin Councils (pending creation) Venezuela's State-owned Water and Sanitation Utility (HIDROVEN). Community Councils, Technical Committees, Irrigation Committees NGOs: Transparencia Venezuela, Espacio Público, Foro Penal de Venezuela, VITALIS, Fundación Aguaclara. Professional associations (Venezuelan Water Association, Venezuelan Groundwater Association, Engineers' Association of Venezuela, Bar Association) and business associations (FEDECAMARAS and COINDUSTRIA) Social media National Institute of Indigenous Peoples; Ministry of Defense, Public Policy Planning and Coordination Councils, and Local Public Planning Councils 	Amendment of the Constitution of the Bolivarian Republic of Venezuela (CRBV) (1999): water is irreplaceable for life and development Proposal for a National Integrated Water Resources Management Plan (GIA) (MinAmb, 2012), based on the seven strategic lines of the National Economic and Social Development Plan 2007-2013 (PNDES, 2007) - Simón Bolívar Socialist Plan	 Partial Tender Reform Act (DLRPL, 2001). Organic Law of Social Responsibility (LOCS, 2010) Organic Law of the Office of the Comptroller General of the Republic and of the National System of Fiscal Control (LOCGRSNCF, 2010) Law against Corruption (LCC, 2003) Draft Law to amend the Anti-corruption Law (originally passed in 2011) Organic Law of Public Administration (LOAP, 2008) Civil Service Statute Act (LEFP, 2001) Code of Conduct for Civil Servants (CEFP, 1997) Organic Law for the Provision of Drinking Water and Sanitation Services (LOPSAPS, 2001) Organic Environmental Law (LOA, 2006). Water Law (LA, 2007) Environmental Criminal Law (LPA, 1992). 	 Organised citizens (Communal Councils, neighborhood associations, NGOs, professional associations, Local Planning Councils): technical oversight, facilities maintenance, transparency in the use of financial resources and accountability, tender procedures, and sector-related project development Judicial system with jurisdiction over environmental matters (magistrates, judges, ombudsmen, etc.) and stakeholders (Municipal, State and National Audit Officials, users' associations, social media): legal mechanisms, and legislative and auditing processes concerning transparency in drinking water and sanitation services Strengthening of governance systems (MinAmb, state-owned utilities, State governments): capacity development on integrity and transparency issues in IWRM and organisational culture Users' association, the press, social media: sensitization and dissemination of information on institutions still pending creation for oversight and control of IWRM. Legislative Officials, National Water Authority Officials, and Municipal Officials: update of IWRM-related legal regulations to promote integrity and transparency in the water sector

Annex 2: Corruption in the Water Sector: Interrelationship between Sectors

Actor	Drinking Water and Sanitation	Water Resources Management	Hydropower	Irrigation	Groundwater Extraction
Public Sector	 Collusion between ministries in selecting and approving water projects. Bribes to hush up accusations of collusion with contractors. Bribes in matters pertaining to drinking water and sanitation network monitoring and control. Arbitrary site selection in favor of real estate belonging to a public official. Bribes to obtain a promotion, an appointment or a transfer within the public administration. 	 Collusion between ministries in covering up water resources contamination. Bribes to obtain water use permits. Bribes to hush up accusations of collusion with private contractors concerning rights to contaminate. Bribes to obtain a promotion, an appointment or a transfer within the public administration. 	Bribes to hush up accusations of collusion with contractors. Bribes to cover up embezzlement in public procurement by public officials. Bribes to obtain a promotion, an appointment or a transfer within the public administration.	 Arbitrary site selection in favor of real estate belonging to a public official. Bribes to obtain a promotion, an appointment or a transfer within the public administration. 	 Arbitrary site selection in favor of real estate belonging to a public official. Bribery scheme to obtain drilling permits. Bribes to obtain a promotion, an appointment or a transfer within the public administration.
Public-Private Partnerships	 Collusion in public procurement. Payoffs to be awarded large-scale contracts. Manipulation of facts and documents to cover up the use of non-certified construction materials. Bribes to accept inflated accounts (unit cost, quantity of material). Preferential treatment to the contractor who locates a project within the constituency of a public official. Manipulation of information submitted to audit authorities. 	 Payoffs to regulatory officials to cover up water contamination. Bribes to cover up sewage and pollutant discharges. 	 Collusion in public procurement. Payoffs to be awarded large-scale contracts. Excesses in project design. Projects licensed with unacceptable environmental or social management plans. Manipulation of facts and documents to cover up the use of non-certified construction materials. Bribes to accept inflated accounts (unit cost, quantity of material). Bribes to cover up non-compliance with contract dates. 	 Bribes to divert water to commercial irrigation projects. Collusion in public procurement. Bribes to be awarded large-scale contracts. 	Bribes to favor costly, over-sized, and technically complex systems. Bribery scheme to obtain drilling permits. Bribes to cover up the use of substandard materials (well casing, cement, etc.). Bribes to accept inflated accounts (unit cost, quantity of material).

Actor	Drinking Water and Sanitation	Water Resources Management	Hydropower	Irrigation	Groundwater Extraction
Users	 Tampering with meter readings. Bribery for preferential treatment in matters related to services or repairs. Bribes to obtain access to water (installation, illegal connections, avoid disconnection). 	Bribery to silence public protest over water resourc- es contamination.	Electrical companies implementing hydropower projects are susceptible to corruption from user sources, including false meter readings, payments and collections, and preferential treatment for services and repairs, bribes for illegal connections to the system.	Bribes to divert water Tampering with meter readings. Bribery for preferential treatment in matters related to services or repairs.	Tampering with meter readings.

Annex 3: Definitions

A review of the concept of accountability

In a few sections of the report in Spanish some authors chose to use the English word *accountability* because that is the term used in most academic and non-academic spheres. However, and in spite of the fact that there is no accurate translation or consensus about the precise translation into Spanish of accountability, other authors of the report decided to use "*rendición de cuentas*", which is the phrase most commonly associated with *accountability*.

According to the report on the UNDP Virtual School and Universidad de los Andes entitled "Impact of Accountability in Water Governance and Management, Regional Analysis of Four Case Studies in Latin America" (UNDP: 2013), accountability is a core aspect in the democratic governance and human development agenda promoted by the UNDP. According to the UNDP Strategic Plan (2008-2013), accountability is a priority for strengthening government institutions so as to render them capable of responding appropriately, of providing and ensuring the provision of rights and services, and of promoting and including community participation in decision-making processes concerning public affairs.

The concept of accountability is therefore at the heart of our understanding of democratic governance. However, accountability is a central element not only in democratic governance but in all aspects of human development since it contributes to ensuring that the interests of the poorest and most marginalised groups in society are taken into account. It is a core human rights principle, and therefore intrinsic to the human rights-based approach [HRBA] to development to which UNDP is committed in all its programming (UNDP, 6:2010).

Accountability is defined as a set of checks and balances and oversight mechanisms of government and public officials and private agents who manage public funds. Control can be exercised by social actors, state agencies, cross-cutting spaces, and international actors to improve government performance and results and to ensure that all citizens fulfill their rights.

From a relational perspective, accountability refers to the relationship between multiple actors: a) those who can be held accountable (politicians, government officials, public government offices, and b) those who have the right to demand accountability (social and government actors) and to impose sanctions for poor results, illegal actions, and abuse of power (Schedler, 1999, Ackerman, 2004).

Accountability,fromthisperspective,providesnotonlyvertical relationships between groups (voters and citizens) and agents (politicians and public officials) (Smulovitz, 2001) but also horizontal relationships between state agents, such as oversight and regulatory agencies (O'Donnell, 2001), and cross-cutting relationships between institutionalised social actors and state agents. These relationships take the form of a dialogue and negotiation of specific public affairs (Isunza y Gurza, 2010; Goetz and Jenkins, 2005).

From the public sphere, account a bility is not an option but an obligation for government and public officials and/or agencies that manage funds and public services to inform and to justify their actions, conduct and results concerning the use and management

of public funds. It also involves accepting punishment and reward for behaviors. This is a relationship with rights and obligations in which multiple government and social stakeholders participate.

Other water integrity concepts1

What is water governance?

- The political, social, environmental, economic, and administrative systems that are in place to regulate the development and management of water resources and the provision of water services.
- A set of systems involved in decision-making processes on water management and service provision.
- Ultimately, water governance is about who gets what water, when and how.
- Water governance systems reflect local, provincial and national realities.
- Effective water governance seeks a balance among the social, economic, political and environmental dimensions.

Integrity is synonymous with honesty and relates to the need for public officials, the private sector and civil society to be honest in carrying out their functions and to ensure that they are immune to being corrupted. It requires that holders of public office and members of the private sector do not place themselves under any financial or other obligation to individuals or organisations that may influence them in the performance of their duties.

Transparency refers to openness and public access to information so that citizens can understand the decision-making processes that affect them, and are knowledgeable about the standards to expect from public officials.

² Water Integrity Training Manual. Cap-Net, UNDP Water Governance Facility at SIWI, WIN, WaterNet

Annex 4: Acronyms

ADERASA Asociación Federal de Entes Reguladores de Agua y Saneamiento de las Américas

AFERAS Asociación Federal de Entes Reguladores de Agua y Saneamiento

AGN Auditoría General de la Nación

AIDIS Asociación Interamericana de Ingeniería Sanitaria y Ambiental

ALAS Autoridades Locales del Agua
ANA Autoridad Nacional del Agua

ArgCap-Net Red Argentina de Capacitación y Fortalecimiento en Gestión Integrada de los Recursos Hídricos

BID Banco Interamericano de Desarrollo

Cap-Net Red Internacional de Desarrollo de Capacidades para la Gestión Sustentable del Agua

Cap-Net Brasil Rede Brasileira de Capacitação em Recursos Hídricos

CAR Corporaciones Autónomas Regionales

CEDARENA Centro de Derecho Ambiental y de los Recursos Naturales
CNUCC Convención de las Naciones Unidas Contra con Corrupción

COASAS Consejo Asesora de Agua y Saneamiento

COFES Consejo Federal de Entidades de Servicios Sanitarios

COHIFE Consejo Hídrico Federal

COMDA Coalición de Organizaciones Mexicanas por el Derecho al Agua

CONAGUA Comisión Nacional del Agua

CONPES Consejo Nacional de Política Económica y Social COVIRENA Comités de Vigilancia de los Recursos Naturales

CRA Comisión de Regulación de Agua Potable y Saneamiento
CRBV Constitución de la República Bolivariana de Venezuela

DIGESA Dirección General de Salud Ambiental

DINAGUA Dirección Nacional de Aguas

DNP Departamento Nacional de Planeación

ENOHA Ente Nacional de Obras Hídricas y Saneamiento

EPSAS Empresas de Prestación de Servicios de Agua Potable y Saneamiento

IFAI Instituto Federal de Acceso a la Información Pública

JUTEP Junta de Transparencia y Ética Pública

LA-WETnet Red Latinoamericana de Desarrollo de Capacidades para la Gestión Integrada del Agua

MVOTMA Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente

ODAPAS Organismos Descentralizados de Agua Potable, Alcantarillado y Saneamiento

OEA Organización de Estados Americanos
OIT Organización Internacional del Trabajo
ONU Organización de las Naciones Unidas

OSE Administración de Obras Sanitarias del Estado

PMGRH Proyecto de la Modernización de la Gestión de los Recursos Hídricos

PNRH Plan Nacional de Recursos Hídricos

PNUD Programa de las Naciones Unidas para el Desarrollo REDICA Red Centroamericana de Instituciones de Ingeniería

REMERH Red Mexicana de Recursos Hídricos SIGEN Sindicatura General de la Nación

SINAC Sistema Nacional de Áreas de Conservación
SIWI Stockholm International Water Institute
SSRH Subsecretaría de Recursos Hídricos

SUNASS Superintendencia Nacional de Servicios y Saneamiento URSEA Unidad Reguladora de los Servicios de Energía y Agua

Annex 5: About the Authors

- Coordination and Preparation of the Regional Report

Damián Indij LA-WETnet Manager

A specialist in capacity development and knowledge network management, Mr. Indij has authored training manuals on IWRM and has lectured at courses held in Latin America, Africa, Asia and Europe. He has a degree in Business Administration, a Master's degree in Education, and has completed a postgraduate degree in non-profit organisations. He has been LA-WETnet Manager since 2002 and in July 2013 he was appointed Cap-Net's Virtual Campus Manager. He is a professor at Universidad de San Andrés in Argentina and has worked as a consultant for UNDP, ECLAC, the European Commission, INWENT and SIWI.

Michael Hantke Domas

Mr. Hantke-Domas is a Chilean lawyer who holds a doctoral degree in Economic Regulation and has more than 17 years' experience in the water sector. He has worked for the Government of Chile, in academia (in Chile and abroad), and for the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). At present he serves as an international consultant in public policy and water law.

Case Study Authors

Armando Llop

ArgCap-Net, Argentina

Mr. Llop is an Agricultural Engineer (Universidad Nacional de Cuyo, Mendoza) and holds a PhD in Agricultural Economics from the University of California, Davis. He is the Director of the Center for Water Resources Economics, Law and Management of the National Water Institute (INA-CELA), and teaches Environmental and Natural Resources Economics at the School of Economic Sciences (Universidad Nacional de Cuyo). He is the Director of ArgCap-Net's Master's Program in Integrated Water Resources Management (IWRM), a joint undertaking between three national universities (Córdoba, Cuyo and Litoral). Mr. Llop has written numerous research papers and has led several research projects. He has also served as a consultant for IDB, ECLAC, UNDP, WMO, FIDA (International Fund for Agricultural Development), FAO, and Latin American governments.

Daniela Nogueira Soares Cap-Net Brazil, Brazil

Ms. Nogueira Soares is an advisor to the Department of Regional Development of the Ministry of National Integration (SDR/MI), where she coordinates efforts to re-design the National Regional Development Policy. She holds a doctoral degree in Sociology from the Universidad de Brasilia (UNB-SOL) and has undertaken doctoral internships at the Urban Cultures and Societies Laboratory (Centre National de la Recherche Scientifique – CNRS) in Paris. She also has a Licenciatura and a Master's degree in Political Sciences from the Universidad de Brasilia (UNB-IPOL) and is a research associate at the Instituto de Pesquisas Avançadas em

Economia e Meio Ambiente – Instituto Ipanema. Ms. Nogueira Soares taught graduate and postgraduate courses at the Instituto de Ciencias Políticas of the Universidad de Brasilia (UNB-IPOL) from 2004 to 2007 and at the Department of International Relations of the Instituto de Educación Superior in Brasilia (IESB-REL) from 2005 to 2007. She specialises in public policy and has worked on projects relating to state transformation in the following areas: federal government and dialogue, participatory management, gender equality, water resources, transparency and accountability, democracy and development.

María del Pilar García Pachón Universidad Externado de Colombia, Colombia

Ms. García Pachón graduated as a lawyer from the Universidad Externado de Colombia, where she specialised in Mining and Energy Law. She holds a Master's degree in Environmental Policy and Mining (Universidad Carlos III, Madrid) and a Diploma of Advanced Studies from the Universidad de Zaragoza. She has written articles on Integrated Water Resources Management, Water Law, and Environmental Law. Ms. García Pachón is the current head of the Environmental Law Department at the Universidad Externado de Colombia, and works at IDLO (International Development Law Organization) as a Legal Specialist for Latin America.

Liliana Arrieta

REDICA (Central American Network of Educational Institutions), Costa Rica

Ms. Arrieta is a Public Law specialist, holds a Master's Degree in Tax Law, and is a graduate from the Course on Human Rights organised by IACHR (Inter-American Commission on Human Rights.) She has worked as researcher and professor of Constitutional and Environmental Law since 2000 and has written journal articles and books for Comité Editorial. Ms. Arrieta also acts a consultant in Environmental Law to the International Court of Iustice.

Alejandro Tonatiuh Romero Contreras REMERH (Mexican Network of Water Resources), Mexico

Dr. Tonatiuh Romero Contreras is a professor and researcher at the Centro Interamericano de Recursos del Agua – CIRA, School of Engineering, Universidad Autónoma del Estado de México. He was professor and researcher at the Colegio de Postgraduados (Mexico) and at the Universidad Iberoamericana (Mexico). He specialises in social history of water, environmental history, and water resources management and rural development. He has directed several research projects and authored seven books and 40 articles for national and international periodicals. At present, his main areas of interest include social water management, traditional and sustainable water extraction systems, and water governance in Mexico.

Marta García Galván

REMERH (Mexican Network of Water Resources), Mexico

Ms. García Galván is a doctoral student of water sciences at the Centro Interamericano de Recursos del Agua – CIRA, School of Engineering, of the Universidad Autónoma del Estado de México. She is a Licenciada¹ in Social Sciences and Public Administration, holds a Master's degree in Social Sciences / Municipal Development, and specialises in legislative law.

Carlos Díaz Delgado

REMERH (Mexican Network of Water Resources), Mexico

Dr. Díaz Delgado is a researcher at CIRA-UAEM (Centro Interamericano de Recursos del Agua - Universidad Autónoma del Estado de México). He holds the following degrees: Civil Engineer from UAQ (Universidad Autónoma de Querétaro, Mexico), and Master of Science and Doctor of Engineering (Hydrology) from Université Laval (Quebec, Canada), where he completed post-doctoral training (1994-2002 and 2005-2010). He has been a member of the Ordre des ingénieurs du Québec and of the Sistema Nacional de Investigadores (Mexico) since 1994. He was the former Coordinator of the Red Iberoamericana de Potabilización y Depuración de Agua and President of the Board of Directors of LA-WETnet. He was also coordinator of the Lerma Network and has been Network Manager of the Red Mexicana de Recursos Hídricos (REMERH-Cap-Net-Mex UNDP) since 2010. He has been awarded several distinctions: Reconocimiento Estatal Nezahualcóyotl 2005; Presea Ignacio Ramírez Calzada 2007, Premio Estatal del Medio Ambiente 2012, and Expert in Hydraulics and Sanitation (CICEM). Dr. Díaz Delgado has written over 200 research papers and articles, and has coauthored and coedited ten books, the latest being "La importancia de las inundaciones en la gestión integrada de los recursos hídricos en México" (2012) (The importance of floods in integrated water resources management in Mexico).

Gabriela Pignataro

Asociación Civil Cultura Ambiental, Uruguay

Ms. Pignataro is a Doctor in Veterinary Medicine and Technology, holds a Master's Degree in Risk Management and Social Responsibility, specialises in Environmental Management, and is the Executive Director and Project Coordinator of the Cultura Ambiental NGO. She is a UNDP consultant for the Sistema Nacional de Emergencias and for the Ministerio de Vivienda, Ordenamiento Territorial y Medio Ambiente of Uruguay in the fields of communication, disaster risk management and climate change education; coordinates the ClimPLATA network of risk adaptation and management in the Plata Basin; and is a member of the Centro de Saberes y Cuidados Socio-Ambientales de la Cuenca del Plata, Sociedades Costeras Responsables, Global Network of Civil Society Organizations for Disaster Reduction, and Cap-Net.

Mourik Bueno de Mesquita CBC ("Bartolomé de Las Casas" Center), Peru

Mr. Bueno de Mesquita is an Agricultural Engineer with special training in irrigation, water resources management, soil conservation, extension services, and rural sociology. He holds a Master of Science degree from the University of Wageningen (The Netherlands). Based in Puno on Lake Titicaca (southern Peru), he has lived and worked in the Andean Region of Latin America for the last 35 years. He currently heads the Andean Water Management Program of the "Bartolomé de las Casas" Center of Andean Regional Studies (CBC) in Cusco (Peru), which offers postgraduate courses, research, water governance projects and consultancy services in the field of integrated water resources management. Mr. Bueno de Mesquita has been directing the CBC knowledge project on "Water Justice" conducted with the University of Wageningen since 2009.

Diego Díaz-Martín VITALIS, Venezuela

Mr. Díaz-Martín is a Licenciado in Biology (UCV, Venezuela), holds a Master's Degree in Environmental Management (UN-EFA, Venezuela), and pursues doctoral studies in Engineering (UPV, Valencia, Spain). He has specialised in Natural Resources Management (OTS, Costa Rica), Wildlife Management and Conservation (Smithsonian, USA), and Engineering Projects (UPV, Valencia, Spain). He has worked as Researcher, Project Coordinator, Programmes Manager and Executive Director for FUDENA, a Venezuelan NGO, and as Eco-regional Coordinator of the Northern Andes of the World Wildlife Fund (WWF). He founded and chaired the Asociación Venezolana para el Agua and the Asociación Sudamericana para el Agua, both belonging to the Global Water Partnership (GWP). At present he is Director of the Avila Project, Head of the Department of Environmental Studies of the School of Engineering, and Coordinator of Environmental Business Management Studies at the Universidad Metropolitana. With more than 30 years' experience in environmental management in Venezuela, Mr. Díaz-Martín is now President and CEO of VITALIS.

² Translator's Note: "Licenciado", as in many Latin American countries is a general term denoting the first higher-education degree awarded at universities, varying from 3 to 5 years of study, depending on the field. It is thus an undergraduate degree, and requires a licence to practice in the learned profession. In Mexico, a distinction is made between simply passing all the required courses, just being a graduate (graduado or pasante), and actually obtaining the diploma (título profesional). Obtaining the diploma means the student completely concluded his or her studies, and has the right of using the title of Licenciado.



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efforts to find solutions to the world's escalating water crisis. SIWI advocates future-oriented, knowledgeintegrated water views in decision making, nationally and internationally, that lead to sustainable use of the world's water resources and sustainable development of societies.