



## CRITICAL POINTS IN A NEW INSTITUTIONAL DESIGN FOR WATER MANAGEMENT IN MÉXICO

*Pontos críticos em um novo desenho institucional para a gestão da água no México*

**Maria de Lourdes Amaya Ventura**

UAM Cuajimalpa

ORCID: <https://orcid.org/0009-0002-9404-9069>

E-mail: [lamaya@cua.uam.mx](mailto:lamaya@cua.uam.mx)

Trabalho enviado em 12 de setembro de 2025 e aceito em 18 de dezembro de 2025



This work is licensed under a Creative Commons Attribution 4.0 International License.



Rev. Dir. Cid., Rio de Janeiro, Vol. 17, N.02., 2025, p. 51-81

Maria de Lourdes Amaya Ventura

DOI: [10.12957/rdc.2025.94108](https://doi.org/10.12957/rdc.2025.94108) | ISSN 2317-7721

## ABSTRACT

Since 2018, discussion about renewing the institutional framework for water management in Mexico has increased. Once accessibility to water was recognized as a human right in the national Constitution, it was established that a new General Water Law should be published by February 2013. A new federal law for water issues has been expected for more than ten years. With a left-wing government installed in the presidency, a new vision about water resources emphasizing its public character should be expected. This paper discusses the key elements that should be considered in a new water law. The research question is: Which critical points should be included in a new institutional design for water management in Mexico? With the local water crisis increasing along the national territory, and a water law that has been in force for more than thirty years, the need for a new institutional design becomes more urgent. We analyze three bill proposals through the grammar of institutions proposed by Ostrom and Crawford and applying content analysis supported by MAXQDA software. Findings include the identification of differences and coincidences between the three bill initiatives and the core regulatory elements that need to be included in any General Water Law.

**Keywords:** General Water Law, institutional design, grammar of institutions, regulation, Mexico.

## RESUMO

Desde 2018, a discussão sobre a renovação do marco institucional para a gestão da água no México se intensificou. Após o reconhecimento do acesso à água como um direito humano na Constituição nacional, ficou estabelecido que uma nova Lei Geral de Águas deveria ser publicada até fevereiro de 2013. Uma nova lei federal para as questões hídricas é aguardada há mais de dez anos. Com a instalação de um governo de esquerda na presidência, espera-se uma nova visão sobre os recursos hídricos, enfatizando seu caráter público. Este artigo discute os elementos-chave que devem ser considerados em uma nova lei da água. A pergunta de pesquisa é: quais pontos críticos devem ser incluídos em um novo desenho institucional para a gestão da água no México? Com o agravamento da crise hídrica local em todo o território nacional e com uma lei da água em vigor há mais de trinta anos, a necessidade de um novo desenho institucional torna-se mais urgente. Analisamos três propostas de projetos de lei por meio da gramática das instituições proposta por Ostrom e Crawford, aplicando análise de conteúdo com apoio do software MAXQDA. Os resultados incluem a identificação de diferenças e convergências entre as três iniciativas legislativas e dos elementos regulatórios centrais que precisam ser incluídos em qualquer Lei Geral de Águas.

**Palavras-chave:** Lei Geral de Águas, desenho institucional, gramática das instituições, regulação, México.

## INTRODUCTION

Water management is a public issue of increasing importance for contemporary governments. Since 2010, when the United Nations declared water accessibility as a human right, Mexican government assumed the compromise of adapting its legal framework to include this recognition. In February 2012, the Mexican Constitution was modified, stating accessibility to water and sewerage as a human right. At



the same time, it was pointed out the importance of modifying the National Waters Law (*Ley de Aguas Nacionales*, LAN for its acronym in Spanish) to integrate this perspective of water as a human right. A deadline of one year was established for the federal government to publish the new water law, even a new name was proposed: General Water Law (*Ley General de Aguas*). However, at this moment, no new water law has been published.

On the other hand, several social scientists have outlined deficiencies in the institutional design for Mexican public administration. Authors like Mauricio Merino (2004) have argued that this institutional design needs to be updated since, due to historic reasons, Mexican state was built over a centralized model which is no longer useful. Intergovernmental relations have changed, Mexican society has evolved, a corresponding institutional design should generate more opportunities for social debate concerning public issues. Water management is not excluded from this new scenario, and the recognition of accessibility as a human right is an appropriate moment for modifying its normative framework. However, a consensual perspective has not yet been reached, at least three versions of the new law have been proposed by different actors, including a proposal supported by social actors. In addition, in 2018 a new left-wing party reached Mexican presidency – the so called Fourth Transformation – which speech was based on the idea of a deep transformation of institutions and practices in Mexican government. This new ingredient should be an additional piece in favor of an institutional redesign for water management.

The purpose of this paper is to discuss the minimal points that should be covered by this new institutional design for water management in Mexico and which positions can be identified around the different proposals. To cover this objective, a review of the documents submitted to the Federal Congress as bill proposals will be made. To analyze all these documents and statements we will use MAXQDA software, and the grammar of institutions proposed by Elinor Ostrom and Sue Crawford (2005).

## 1. INSTITUTIONAL DESIGN OF WATER MANAGEMENT IN MEXICO.

Mexico's federal system is inspired in the US model, although combined with the municipal figure inherited from the Spanish influence. The national government level is constituted by the national state and the local governments (state government and municipal government). For historical reasons, the Mexican nation was built on the base of a centralized, strong federal government, intended to resist pressures and attempts of invasion on behalf of other countries and to control internal confrontations of local political and military groups. Water management evolved within the same centralized vision during the XX<sup>th</sup> century, the federal government played a central role in decision-making concerning water policy and local governments were mainly executors of policy decisions.



This institutional design started to change in 1983, with a constitutional reform which transferred to the municipal government the authority over several public services, including water management. This first measure was complemented in 1992 by the publication of the LAN, defining a new regulatory framework and creating new institutions for water policy (Amaya, 2007). The most important figure created by the LAN was the National Water Commission (*Comisión Nacional del Agua, Conagua*), as a regulatory agency, but it also created local figures like the State Commissions for Drinking Water, Sewage and Sanitation (*Comisiones Estatales de Agua Potable, Alcantarillado y Saneamiento, CEAPAS*), intended to manage water at each local state. Finally, a regional figure was created, thirteen basin councils (*Consejos de Cuenca*) corresponding to each hydrological region defined for the Mexican territory and conceived as coordination instances for all three levels of government and social actors.

This new normative framework was a result of a decentralization policy, but also of a new perspective on water issues since another relevant change was the possibility of making concession contracts with private enterprises to manage drinking water in several Mexican cities. Thus, the LAN was presented as an effort to integrate citizen participation into water management and at the same time it opened the water sector to the participation of private enterprises.

As the time passed by, this institutional arrangement showed some failures, we will only mention those related to drinking water management at the local level:

- Weak regulation of concession contracts and the operation of private enterprises.
- Difficulties in the creation and functioning of basin councils.
- Lack of coordination between governmental levels.
- A weak law enforcement for considering accessibility to water as a human right.

This last point is particularly important, because the official recognition of the human right to access water was the critical moment to justify the need for a new institutional arrangement for water policies. Even if the LAN had been previously reformed, the modifications were just adjustments. Probably, the most important reform was the creation of another local figure, the water committees, which number and nature would be defined by local authorities to manage specific water issues. In February 2012 the Mexican Constitution was modified to include the human right to water and establishing the obligation of the federal government to publish a new General Water Law. The deadline was 360 days, but by August 2025 the new legal framework is not yet approved.

Since 2015, several versions of the new water law have been proposed to the Federal Congress, in this paper we will review three of them: the one proposed by the former *Conagua* Chairman (Korenfeld Law), the so-called Citizen Initiative, and the current proposal of president Sheinbaum's government, which is referred to as the Fourth Transformation proposal. It is important to outline that the first two



initiatives were presented and discussed at the same time in 2015, while the last one was presented at the end of 2024 after several years of standby in the discussion of a new law for water management. Before presenting the main features of each bill proposal, we will briefly describe the context in which they emerged.

*The Korenfeld Law (KL).*

On March 5<sup>th</sup>, 2015, the Korenfeld Law was presented to the Federal Congress, this document would be considered as the official proposal for the new General Water Law. It was named after Conagua's chairman at the time, David Korenfeld. It was approved by the chamber of deputies, creating a strong debate mainly in the academic sector which criticized its market approach. Several discussion forums in different universities throughout the country were organized to discuss this proposal. Moreover, David Korenfeld was involved in a corruption affair which caused strong protest on behalf of social organizations and ending with his dismissal. Critics of Korenfeld's behavior insisted that the bill proposal associated with his work team should be discarded.

*The Citizen Initiative (CI).*

This proposal was originated in an academic congress about water celebrated in December 2012, with the participation of 420 researchers on water issues. It was the result of the exchange of ideas through small groups formed at the end of the congress panels, each group discussing a specific water issue. Even if it was originally a citizen creation, the initiative needed an official channel to reach the Federal Congress, senator Alejandro Encinas and Deputy Aleida Alavez, both members of the Democratic Revolutionary Party (*Partido de la Revolución Democrática*, PRD) were charged with the responsibility of defending the proposal. It was presented to the chamber of deputies on February 12<sup>th</sup> and to the senatorial chamber on March 23<sup>rd</sup> of 2015.

*The Fourth Transformation proposal (FT).*

More recently, as for November 2024, a new proposal was presented to the Federal Congress by Morena's Deputy Xochitl Zagal. Even if during López-Obrador's government the issue of the General Water Law seemed to be forgotten, the new president, Claudia Sheinbaum, has emphasized the importance of water and has released several official agreements to manage the resource. At the end of year 2024, the Minister of Environment – Alicia Bárcena – declared to the press that the law that is currently in force has been left behind in several topics<sup>1</sup>. However, it seems that there is no hurry for approving the new General Water Law, instead government is managing water use mainly through the

---

<sup>1</sup> La Jornada, newspaper 09/12/24 <https://www.jornada.com.mx/2024/12/09/politica/010e1pol>



National Agreement for the Human Right to Water and Sustainability, signed with the 32 state governors in Mexico.

We will now briefly describe the main features of each bill proposal, to distinguish between them we will use a code for each one: Citizen Initiative (CI), Korenfeld Law (KL) and the Fourth Transformation proposal (FT). We will compare these proposals, focusing on four subject areas: water as a human right, citizen participation, decentralization and transparency. These areas were chosen because of their relationship with water domestic use and their relevance for the regulation of water use.

### **A) WATER AS A HUMAN RIGHT**

On this subject, the KL mentions the concept of human right to water 73 times. It also mentions in its first chapter that the purpose of the law is to enforce the 4<sup>th</sup> constitutional article to define how federal government, state and local governments and citizens would participate in mechanisms to guarantee the right to water. After this statement, it is until Article 8 that the human right to water is mentioned as a public interest issue (Art. 8 Sec. VII). Article 10 serves to define several key concepts, the human right to water is defined in a short, very specific way as an individual right to access water for personal consumption in a sufficient, acceptable, healthy and affordable manner. (Art. 10 Sec. XXV).

The concept of human right to water appears 48 times in the CI. In its very first article, it was established that the law had the main purpose of enforcing the constitutional articles related to guaranteeing water access in a sufficient way and from an equity perspective. It is emphasized that the human right to water should be guaranteed for all Mexican inhabitants (Art. 1 Sec. I). Moreover, Article 2 outlines the citizen duty of preserving water and at the same time the right to access all national waters, following the terms and conditions established by the law. In this second article, the State duty for guaranteeing exercise or this human right is mentioned, adding the conditions of a sustainable and equitable context (Art. 2). Article 3 of the CI defines several key concepts, including the human right to water which is conceived as a collective right for Indian peoples and communities to have enough, accessible, affordable, safe water to have a decent life (Art. 3 Sec. XI). It is also pointed out that the right to water constitutes a previous condition to achieve other human rights.

Finally, in its justification the FT proposal mentions the right to water and the right to a healthy environment and there is even a whole section about human rights related to water. The term human right to water appears 43 times. The second article of this proposal establishes the goal of defining the basis for preserving the right to a healthy environment and to guarantee water availability. Article 4 defines water as a natural resource and a necessary condition for the protection of several rights from the right to life, to the right to access to justice. It is in Article 8 that water is declared as a public interest issue



in terms of giving priority to domestic use as a way of guaranteeing the human right to water (Art. 8 Sec. VI). Then, Article 9 enforces this point by outlining the availability of water as a cause of public interest to guarantee the human right to water (Art. 9 Sec. III). Nevertheless, when defining core concepts for the law, there is no reference to the human right to water but to human rights related to water (Art. 10 Sec. XIX). It seems that the right to water is a means to achieve other fundamental rights; in this perspective, access to water would be a right at a secondary level.

This comparison referring to water as a human right is summarized in table 1. Since the change towards a new Mexican legal framework is based on the need to include the human right to water, it is normal to observe the term appearing in all three proposals many times.

<b>Table 1</b>			
<b>Water as a human right in each bill initiative</b>			
	Korenfeld law (KL)	Citizen Initiative (CI)	Fourth Transformation (FT)
How many times appears the term "human right"	73 times	48 times	43 times
How the term is defined	It is considered an <i>individual right</i> and a public interest issue.	It is considered a <i>collective right</i> .	It is considered an <i>intermediate right</i> , a previous condition to achieve other fundamental rights.
What is its relevance	It is a central concept. The core of the bill proposal is to protect this human right.	It is a central concept. The core of the bill proposal is to protect this human right.	It is not mentioned as the main objective of the law, but there is a whole section about the human right to water and to a healthy environment.

Source: Adapted from the three bill initiatives.

Differences begin when defining the term of human right to water. We observe that the most significant difference is the understanding of this human right which goes from an individual perspective

in the Korenfeld Law to a collective right in the Citizen Initiative. The more particular perspective is that of the Fourth Transformation proposal, viewing the human right to water as the means to achieve other human rights. This proposal is also the only one considering the right to a healthy environment. The KL and the CI explicitly mention the accessibility to water as a human right as a core concept for the law, although the FT proposal is not explicit in this point, in fact, it dedicates a whole section to this matter.

## **B) CITIZEN PARTICIPATION.**

Regarding citizen participation, the KL uses the term only 6 times even if there is a whole section of the law dedicated to discussing the issue. In this section, Article 54 points out the non-governmental actors habilitated to participate in the execution, evaluation and surveillance of water policy. At the top of this list, we find water concessionaries followed by academic groups and social organizations whose activities are related to water use. This article also outlines that local governments (states and municipalities) must coordinate with *Conagua* to facilitate this participation. Accordingly, citizen participation appears on the list of issues requiring intergovernmental coordination (Art. 28 Sec. VII). For this bill proposal, the main achievement in terms of participation is the increasing participation of concessionaries and social organizations in the basin council (60%), with a smaller presence of local governments (30%) and the federal government (10%) (Art. 56). As for the nature of this participation, Art. 61 establishes that social organizations could evaluate, analyze, and make recommendations concerning water management.

In the CI, the term of citizen participation appears 15 times, starting with the background of the law which is presented as the result of years of social discussion about water issues. According to its nature, this proposal considers citizen participation as a core element for managing water and as an articulating element to link the human right to water to the consolidation of a healthy environment. In contrast with the KL, the emphasis of this proposal is not on the role of the basin council but on other communitarian figures such as the sub-basin commissions and the micro-basin committees (Art. 25 Sec. I-IV). It is clearly stated that participation is not only an individual matter, but a communitarian exercise. As early as in Article 1, arenas and mechanisms for citizen participation are mentioned as part of the goals for the law and means to guarantee the human right to water (Art. 1 Sec. I). Another significant point is the priority given to water use of Indian communities and the respect of their cultural rights and their relationship to water. Citizen participation should preserve these cultural elements (Art. 1 Sec. IV). When presenting the list of ethical principles guiding the law, citizen participation is defined in democratic terms and as a mechanism to achieve sustainability and equity. Information issues are also included in this article; they will be described in the transparency section.



The FT bill proposal mentions citizen participation 25 times. Article 3 including general definitions, links citizen participation and accountability, outlining that it should include vulnerable sectors of the population (Art. 3 Sec. VIII). The central figure for articulation and coordination of this participation would be the National Basins Council, which in turn would be part of *Conagua's* administrative council. Chapter IV is dedicated to the right to citizen participation, which is considered an individual activity covering decision-making processes, programs, projects, surveillance and guarantee of human rights related to water. However, Article 31 establishes that any infrastructure project should be approved by individuals and communities directly affected, using consulting mechanisms (Art. 31 Sec. III). At this point, it is important to mention that popular consulting is a political instrument often used by the governments of the so-called Fourth Transformation. These consulting processes should give equal treatment to all participants, respecting their cultural identity, their autonomy and freedom of decision and the priority on the right to enjoy their natural resources (Art. 31 Sec. IV). There is also a section about participation related to water services, which should be promoted by all three governmental levels (Art. 117) and could cover all kinds of activities from extraction to fee collection (Art. 119). Also, mechanisms for citizen participation cover all three governmental levels (national, state and municipal), through the National Basin Council, complemented by regional local and communitarian councils (Art. 121). Finally, Article 69 defines the data that would be included in the National System of Water Information, such as an atlas of participation mechanisms for water issues (Art. 69 Sec. XVI).

This comparison referring to the issue of citizen participation is summarized in table 2. For this category, we can observe a more significant difference in treatment on behalf of each proposal. Both the CI and the FT proposals emphasize the role of citizens in water management, which is also included in the KL in a more moderate way.

<b>Table 2</b>			
<b>Citizen participation in each bill initiative</b>			
	Korenfeld law (KL)	Citizen initiative (CI)	Fourth Transformation (FT)
How many times appears the term "citizen participation"	6 times	15 times	25 times
How the term is defined	It is <i>broadly defined</i> , including several activities and actors, but putting on first place water concessionaries.	It is considered as a core element for managing water, and to link both the human right to water to the right for a healthy environment. It emphasizes <i>communitarian figures</i> .	It is considered an <i>individual right</i> . It is conceived from a centralized perspective based on the figure of the National Basins Council.  It emphasizes the inclusion of vulnerable social sectors.
What is its relevance	It is relevant mainly for intergovernmental coordination.	It is a relevant issue even at the justification of the law.	It is a relevant issue, since there is mention of the right to participate, and a whole chapter is dedicated to it.

Source: Adapted from the three bill initiatives.

All three initiatives talk about citizen participation during the whole process of managing water resources, although the CI initiative takes a communitarian perspective. On the other hand, following its popular perspective, the FT law emphasizes vulnerable populations and consultation instruments while proposing a centralized figure to coordinate participation. This popular orientation explains the chapter dedicated to explaining the details of the participation topic.

### C) DECENTRALIZATION

The term decentralization appears only once in the KL, when listing matters of coordination between federal and local governments (Art. 28 Sec. VII). This need for coordination is also outlined for



subjects such as education and water culture, technological development for water and the implementation of policies, programs and policy instruments. But there is no emphasis on the need for autonomy on behalf of local authorities for managing water issues. We try to observe this issue through the term “local”, which appears 32 times. However, it appears mainly to mention the relevance of the local legal framework for several issues and not with the purpose of increasing local governments’ attributions or decision-making capacities. It seems that, in the KL, the perspective on intergovernmental relations is still one based on hierarchy and a centralized governance system.

Surprisingly, the term decentralization does not appear in the CI, not even once. Thus, once again it was necessary to use the term “local” to understand the perspective of this initiative concerning the role of local authorities for water management. The term “local” appears 43 times, but in this case, it is used in a more significant sense, describing the central role that local governments should play in managing water issues, considering local needs, including local traditional knowledge and regulating local water infrastructure. There is also emphasis on the participation of local figures, such as local universities, on monitoring functions for water systems. According to this bill proposal, actions for preserving water should be prioritized at the local level, showing a different more decentralized perspective of how to deal with water issues (Art. 4 Sec. XIV).

In the case of the FT initiative, the term decentralization appears 3 times, concerning irrigation systems and intergovernmental coordination (Art. 41 Sec. XII; Art. 83 Sec. VII). For a clearer idea of the role of local authorities in water issues, we also searched for the term “local” in this law, it appears 58 times. It first appeared in the justification of the law, when outlining the importance of considering local circumstances for water management; then the local governmental level is mentioned as the starting point for water planning (Art. 3 Sec. IX). An interesting point is the section dedicated to water security, Article 74 establishes that the National Guard could participate, at the request of local authorities, in tasks to ensure water safety (Art. 74). The FT proposal includes a whole chapter dedicated to local authorities, with faculties over the process of water management, the definition of norms and actions to guarantee human rights associated with water, actions to achieve the goal of universal service coverage among others (Art. 76). It is important to note that this chapter distinguishes between states, Mexico City, and municipalities, each one with its own article (Art. 77, 78, 79). Agrarian and Indian authorities are also included with specific chapters for each one (Art. 81, 82). As mentioned in the citizen participation section, a local figure for this purpose is also created, the local basin council (Art.120 Sec. III). We observe that in this proposal an important role is given to the local government level. However, this relevance of the local factor is combined with centralized figures and the involvement of the federal government in important water issues such as safety.



This comparison referring to the issue of decentralization is summarized in table 3. As we mentioned before, the term “decentralization” is not directly included in a significant way in either bill proposal. However, from a general review of each document, we could observe that in fact local issues appeared in all of them. That is why we did not dismiss the topic and tried to observe it through a similar concept.

<b>Table 3</b>			
<b>Decentralization in each bill initiative</b>			
	Korenfeld law (KL)	Citizen initiative (CI)	Fourth Transformation (FT)
How many times appears the term “decentralization”	“Decentralization” appears once; the term “local” appears 32 times.	“Decentralization” does not appear; the term “local” appears 43 times.	“Decentralization” appears 3 times; the term “local” appears 5 times
How the term is defined	It is defined in terms of <i>coordination between governmental levels</i> .	It refers to the significant role of <i>communities and local governments</i> for water management.	It refers to <i>intergovernmental coordination</i> and the relevance of local authorities.
What is its relevance	It is relevant, mainly for intergovernmental coordination.	It is a relevant issue since the law recognizes the importance of local needs and circumstances for water management.	It is a relevant issue, since there is a whole chapter dedicated to the role of local figures in water management.

Source: Adapted from the three bill initiatives.

Then, taking as a reference the term local, we can see that it appears several times on all three proposals, with the CI and the FT initiatives emphasizing the role of local authorities and local communities while the KL considered them mainly in terms of their relationship with other governmental levels. However, even if the FT law gives a more detailed description of the role of local figures, there is a point of coincidence with the KL when outlining the relevance of intergovernmental relations. This could indicate that, despite the emphasis of the FT in the local context, there is a hierarchical view of water management.

## D) TRANSPARENCY

In the KL, transparency is mentioned 4 times, although there is a whole chapter entitled “Information and transparency” outlining the responsibility of the State of guaranteeing the right to information concerning hydric resources and water services (Art. 62). The information should be of quality, that means complete, truthful, neutral, consistent and timely, particularly in terms of availability and quality of water. The purpose of preserving this transparency is to achieve a more democratic decision-making process and to enforce the use of clear indicators for the evaluation of water services. Transparency is also mentioned as an ethical principle contributing to democratization, accomplishment of performance criteria and preservation of the right to access the information of the National System of Water Information (Art. 63). It is recognized the need to make public all information contained in the National System of Water Information, including state of concession contracts, investments in the water sector, financial sources, infrastructure planning, problems and solutions for water issues (Art. 64). The water commission (*Conagua*) should present a report to the chamber of deputies twice in the year (Art. 64).

Concerning transparency issues, the CI links citizen participation to the access to information about water, including the right of observing the decision-making process developed by governmental authorities. The term transparency is mentioned 11 times, we can observe that it is included in the background of the law, since lack of transparency is part of the argumentation to justify the need for a renewed legal framework for water. Since this proposal is based on communitarian systems for managing water, Article 21 establishes that they should include democratic, transparent mechanisms and a neighborhood committee to watch over their democratic functioning. In terms of the financial resources related to water, it is clearly stated that they should be handled with absolute transparency and according to the plans approved by local authorities (Art. 75). There is also the creation of a new office, the Bureau of Social Control of Water (BSCW), which function would be to watch over the use of public resources for water (Art. 169 Sec. III). The law proposes the creation of communitarian water systems managed by a board of directors, its members would be elected by democratic processes, also surveilled by the BSCW (Art. 169 Sec. VII).

In the case of the FT proposal, the term transparency appears 16 times. Once again, it is first mentioned in the justification of the law, describing the historical deficiencies of water management in Mexico. Lack of transparency and weak accountability mechanisms are pointed out as one of the most urgent problems to solve concerning water issues, since they prevent the goal of equity from being achieved. In the section concerning water resources financing, transparency is mentioned among the criteria for guiding public policies and programs. It is also included in the list of public interest issues



serving to guarantee the right to information concerning water (Art. 8 Sec. XX). This law also proposes the creation of communitarian systems for water and sewage, ruled by users' assemblies, subject to transparency mechanisms (Art. 10 Sec. LVI). All three governmental levels (national, state and municipal) are responsible for the agreement of water policies with the General Law of Transparency and Access to Public Information (Art. 26). The list of ethical principles guiding transparency in water issues includes democratization, implementation of management indicators for valuing the performance of water services, public information about water fees, information about public or private utilities responsible for water services, information about financial resources for water, and public access to all data contained in the National System of Water Information (Art. 28). Data organization for this National System is the responsibility of *Conagua* in collaboration with all basin councils (Art. 55 Sec. XXVIII). Classified information would be determined according to the causes defined by federal and local transparency laws, information about issues related to violation of human rights related to water could not be classified (Art. 29).

This comparison referring to the issue of transparency is summarized in table 4. We observed a major emphasis on this issue for the CI and the FT proposals, both of which talk about the lack of transparency as a major problem for Mexican public administration and particularly water management.

<b>Table 4</b>			
<b>Transparency in each bill initiative</b>			
	Korenfeld law (KL)	Citizen initiative (CI)	Fourth Transformation (FT)
How many times appears the term "transparency"	4 times	11 times	16 times
How the term is defined	It is broadly defined, in terms of the <i>quality of information</i> about water. It is also considered an ethical principle.	It is mainly considered from a <i>financial</i> point of view, emphasizing the monitoring of resources intended for water.	It is considered as a <i>solution</i> for several problems associated with water management.
What is its relevance	It is a relevant issue associated with democratic decision-making through the	It is a relevant issue mainly from a local perspective, with an emphasis on communitarian	It is a relevant issue for the democratization of water systems through the

	National System of Water Information.	systems and the Bureau of Social Control of Water.	National System of Water Information.
--	---------------------------------------	--	---------------------------------------

Source: Adapted from the three bill initiatives.

Important differences appear when talking about the approach to the subject. Transparency is seen as an ethical principle (KL), a primary financial issue (CI) and a solution for water problems (FT). Once again, a coincidence links the KL and the FT proposals, with the creation of a National System of Water Information, revealing that both initiatives share a centralized view of how to handle water data. Once again, the CI stands out for its communitarian, local perspective.

To complete this general comparison, and with the purpose of developing a deeper understanding of the key topics for the new Mexican water law, we will review the three proposals in the light of the grammar of institutions proposed by Elinor Ostrom. We will do it with the support of Maxqda software.

## 2. THE GRAMMAR OF INSTITUTIONS

As part of her Institutional Analysis and Development (IAD) framework for the study of common pool resources (CPR), Elinor Ostrom proposes in collaboration with Sue Crawford what they call *institutional grammar*. As they explain “the grammar of institutions thus provides a syntax for analyzing and expressing institutional statements that can be used to distinguish systematically among rules, norms, and institutions from a wide range of the social sciences” (Ostrom, 2005: 139). This syntax is an analytical tool for understanding how a regulation framework is constructed, identifying five institutional categories:

- A *Attributes*, referring to whom the institutional rule applies.
- D *Deontic*, concerning statements using the words may, must/should and must not or should not, to make a distinction between prescriptive and non-prescriptive rules.
- I *Aim*, related to the action implied in the rule and the outcomes expected.
- C *Conditions*, specifying the variables that must be present to apply the rule.
- O *Or else*, referring to the consequences of noncompliance of the rule.

According to Ostrom and Crawford, a complete institutional design should include all the ADICO components. Considering an institutional framework as a set of formal and informal rules, the authors emphasize that the specification of what should be done is not enough, it must be completed by monitoring and sanctioning mechanisms as well as the purpose of the rule (Ostrom, 2005). Also, they make a distinction between norms and rules: “We argue that if the prescriptions are shared, then they



are either norms or rules. Both formal and informal prescriptions can be classified as shared norms or rules depending on the presence of the OR ELSE component” (Ostrom, 2005: 166).

The authors explain how useful this grammar of institutions could be in analyzing a set of rules. Using game theory, they show that a complete institutional framework is necessary to protect a CPR such as water and the different socio-political topics that can be discussed with the ADICO analysis, for example, legitimacy of the rules and compliance: “If those who are supposed to follow a rule view it as illegitimate, they may even reward one another for actions that break the rules” (Ostrom, 2005: 167). The analysis and classification of rules is also useful to find voids or contradictions in a set of rules, for example, a law for regulating water resources.

Using MAXQDA software, we will develop content analysis of the three bill proposals to identify similarities and differences, but also the key topics for the future General Water Law. In our analysis, each ADICO element would constitute a category with several units of analysis as shown in Table 5.

<b>Table 5</b>	
<b>Categories and units of analysis applied to all three bill proposals</b>	
<b>Categories</b>	<b>Units of analysis</b>
<b>Attributes</b>	Federal government Local government Citizens Private actors
<b>Deontic</b>	May Must / should Must not Should not
<b>Aim</b>	Preserve the human right to water Coordinate intergovernmental actions Equitably distribute the resource Regulate water-related actions
<b>Conditions</b>	Transparency and dissemination of information Citizen participation

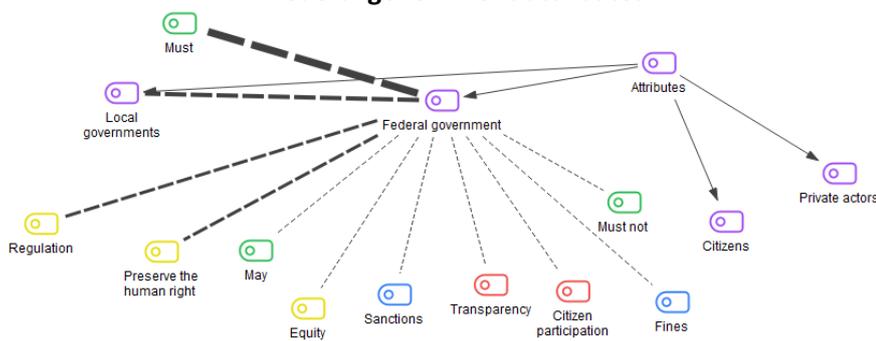
	Intergovernmental coordination
<b>Or else</b>	Sanctions Fines Withdrawal of concessions

Source: Adapted from Ostrom and Crawford (2005).

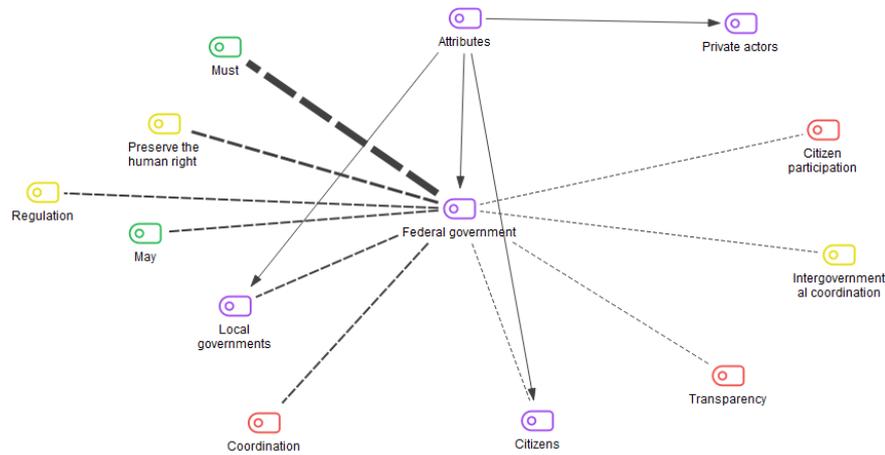
After the codification process, we were able to observe several differences among the three bill initiatives. Throughout the mapping process, for each category and subcategory we will analyze those differences. Starting with the *Attributes* category, we observed each governmental level and its relationship with other relevant issues. For example, attributes for the federal government changed in each law. In the KL, it had multiple attributes which were reduced in the other two initiatives, particularly the CI. Also, the relationship between federal and local governments is more significant in the KL, which may imply stronger control over local authorities. Finally, only the IC shows a relationship between federal government and citizens which is absent in the other two laws.

As for the figure of citizens, in the KL they have not real attributes since they appear related only with the “may” factor. In the case of the FT initiative, citizens have zero attributes in big contrast with the CI which shows citizens in a strong relationship with local governments, a relevant relationship with federal government and, consequently, a relevant role in coordination issues. In this initiative, citizens are also related to issues like citizen participation and preservation of the human right to water.

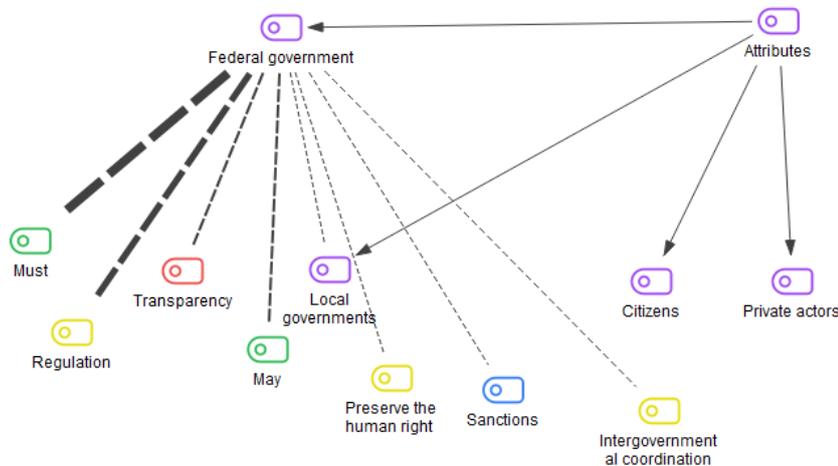
**Figure 1.1**  
**Korenfeld Law**  
**Federal government attributes**



**Figure 1.2**  
**Citizen Initiative**  
**Federal government attributes**

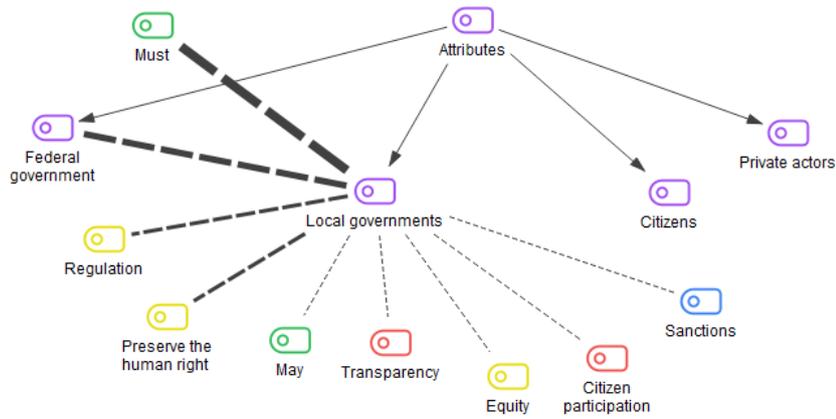


**Figure 1.3**  
**Fourth Transformation Initiative**  
**Federal government attributes**

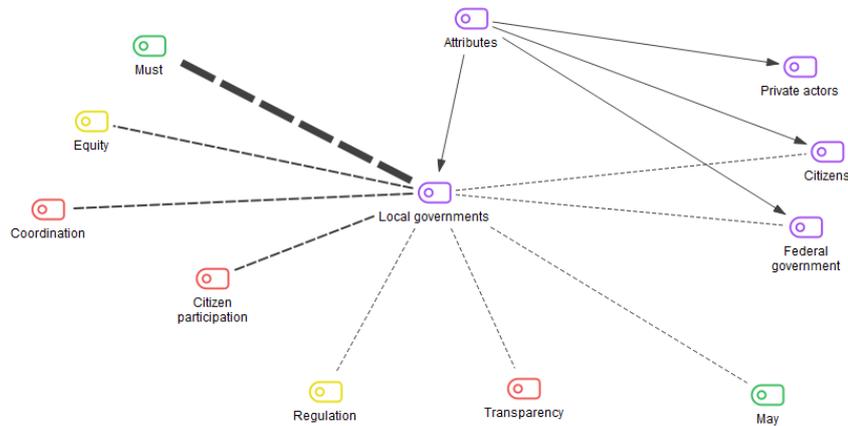


Concerning local governments, besides the relationship with federal authorities, it is important to observe the issues listed in their attributes. In the KL, local governments are related to issues like preservation of the human right to water, transparency and citizen participation; in the CI, they are not related to the preservation of the human right, but they have a stronger relationship with citizen participation and appear also related to transparency. In the FT, they appear related to all three subjects, but not at a significant level.

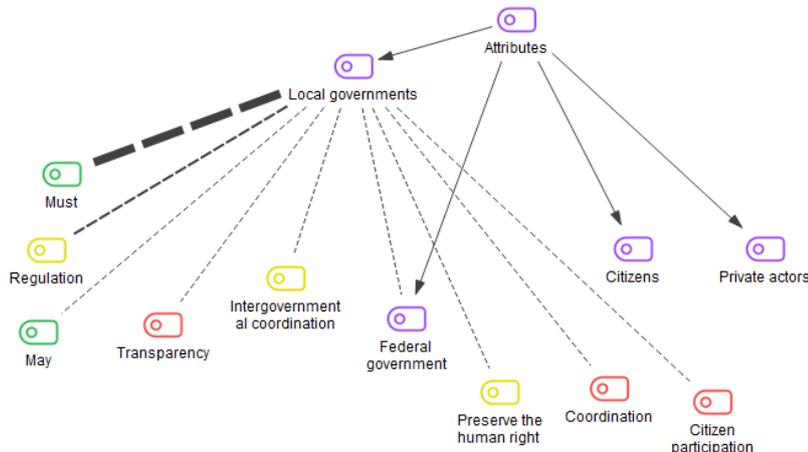
**Figure 2.1**  
**Korenfeld Law**  
**Local government attributes**



**Figure 2.2**  
**Citizen Initiative**  
**Local government attributes**



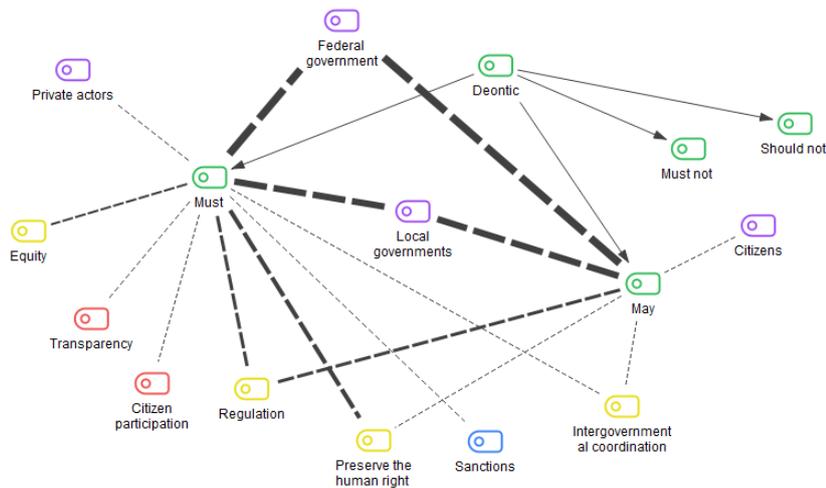
**Figure 2.3**  
**Fourth Transformation Initiative**  
**Local government attributes**



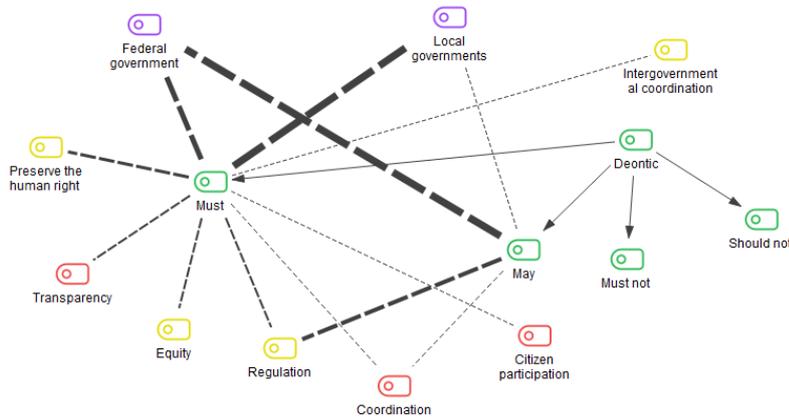
Concerning the *Deontic* category, as it could be expected when talking about law, the MUST and the MAY elements are predominant in the three initiatives. Consequently, we will concentrate on the identification of the central actor and the issues that are included in each initiative. In the KL, federal and local governments appear as important actors in the same measure, the more important topics are the preservation of the human right to water and regulation issues. Equity is also important and then we find a list of issues like transparency, citizen participation, the presence of private actors, intergovernmental coordination and sanctions. In the case of the CI, once again all governmental levels are relevant and intergovernmental coordination appears in second place; regulation and preservation of the human right

to water are the more important issues; then the list includes transparency, coordination with social actors, equity and citizen participation. In the case of the FT proposal, local governments have a stronger position than the federal government, we observe in the third place the intergovernmental coordination and the presence of private actors with no obligations but with possibilities of action. Regulation and transparency are both relevant issues and then the list includes the preservation of the human right to water, equity, coordination with social actors and regulation topics like sanctions.

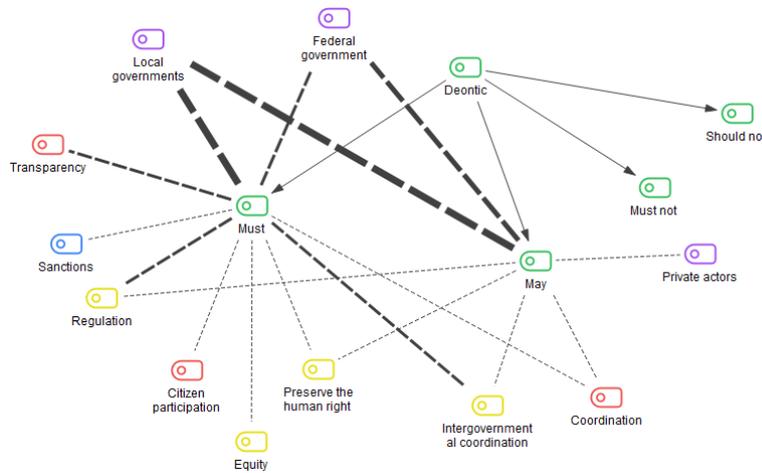
**Figure 3.1**  
**Korenfeld Law**  
**Deontic elements**



**Figure 3.2**  
**Citizen Initiative**  
**Deontic elements**

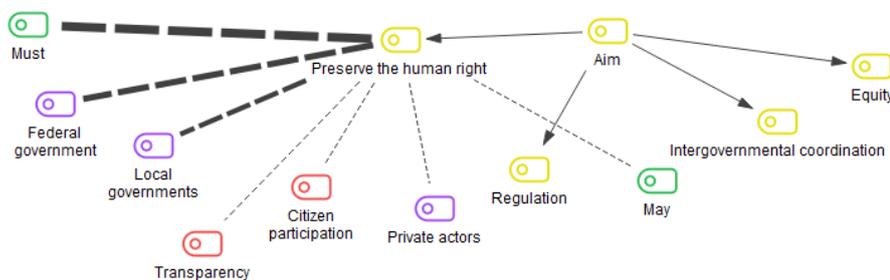


**Figure 3.3**  
**Fourth Transformation Initiative**  
**Deontic elements**

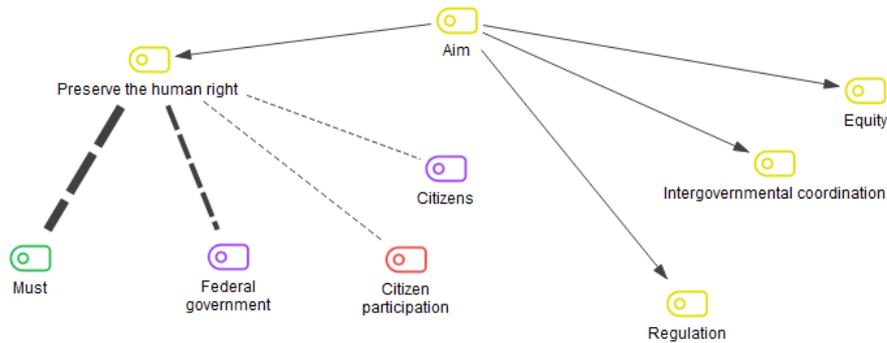


For the *Aim* category, we will concentrate on the preservation of the human right to water and regulation. In the KL this objective is emphasized mainly concerning the federal government and is related to local governments in second place. A relationship with citizens and private actors also appears but not in a significant way. Preservation of the human right to water appears in the CI related in a significant way to the federal government and in a less important way to citizens. Local governments do not appear related to this purpose. Finally, concerning the FT proposal, the aim of preserving the human right to water is seen mainly as an intergovernmental task and related to federal and local governments in a similar way.

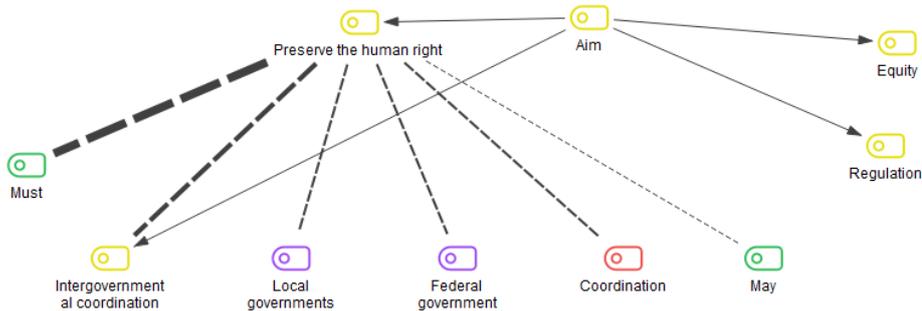
**Figure 4.1**  
**Korenfeld Law**  
**Preservation of the human right to water**



**Figure 4.2**  
**Citizen Initiative**  
**Preservation of the human right to water**

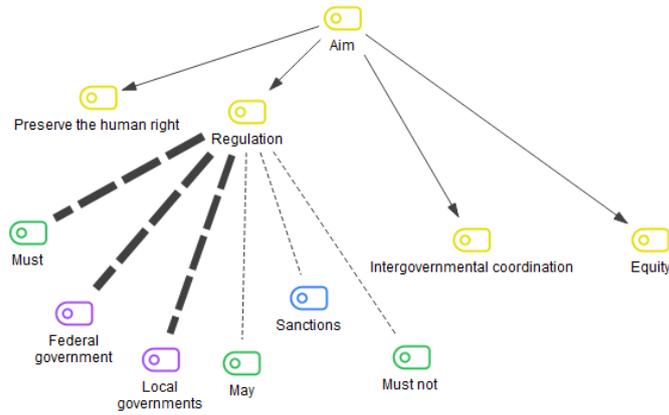


**Figure 4.3**  
**Fourth Transformation Initiative**  
**Preservation of the human right to water**

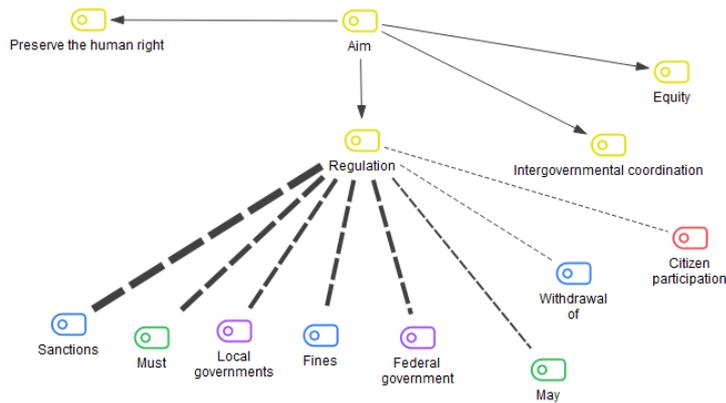


In the case of regulation, it is the KL which emphasizes it in a more significant way, and it is emphasized in the FT in a similar way to the CI. Regulation in the KL appears as an aim strongly related to all governmental levels, which are able of imposing sanctions. Regulation in the CI is also attributed to all governmental levels, sanctions appear as a stronger element, there are also fines as significant measures and the possibility of withdrawal of concessions is included. In the FT, both fines and sanctions are included but not in a significant way.

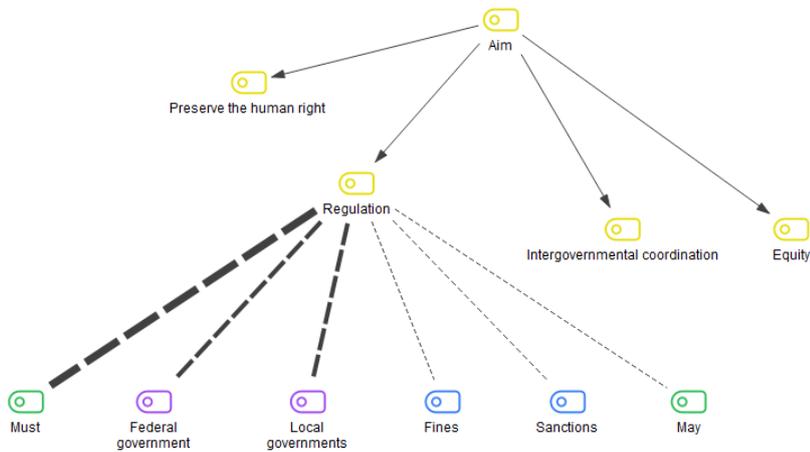
**Figure 5.1  
Korenfeld Law  
Regulation**



**Figure 5.2  
Citizen Initiative  
Regulation**

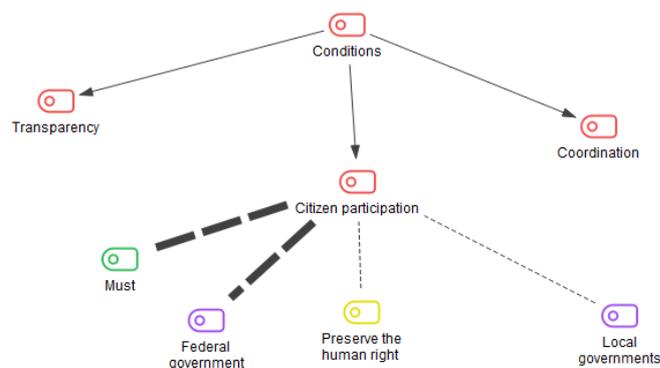


**Figure 5.3  
Fourth Transformation Initiative  
Regulation**

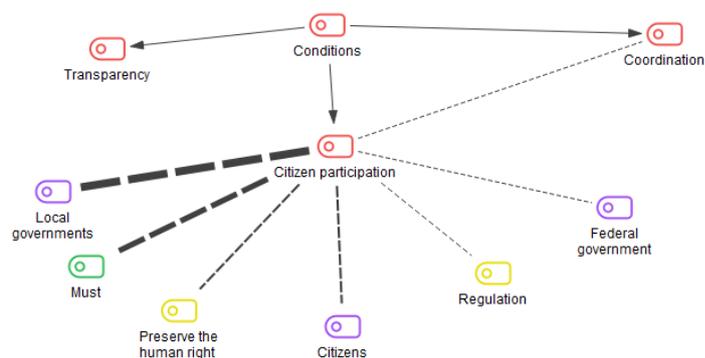


For the category of *Conditions*, we will review citizen participation and transparency. For the KL, citizen participation is a condition that must be guaranteed mainly by the federal government and secondly by local governments. This participation appears related to the preservation of the human right to water. In the case of the CI, citizen participation is mainly an issue for local governments, and it is related not only to the preservation of the human right to water but also to regulation issues. Finally, in the FT initiative, citizen participation appears significantly related to coordination with social actors and related to intergovernmental coordination, transparency and local governments in a more moderate way.

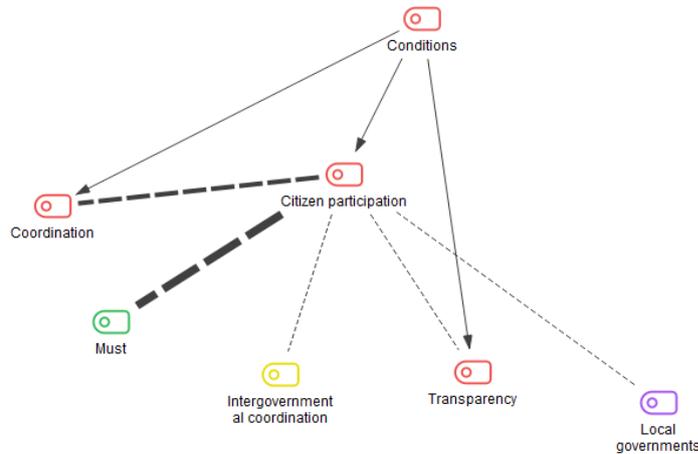
**Figure 6.1**  
**Korenfeld Law**  
**Citizen participation**



**Figure 6.2**  
**Citizen Initiative**  
**Citizen participation**

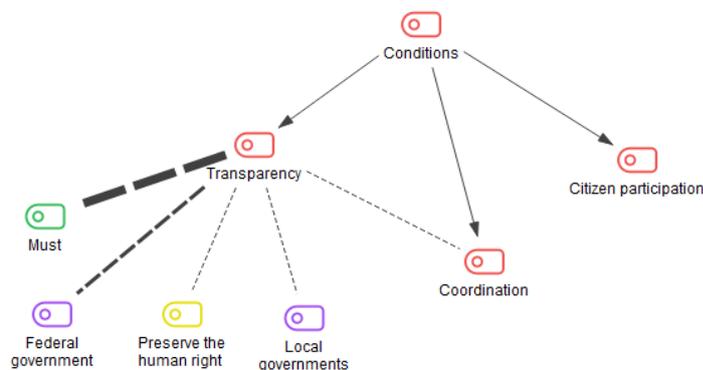


**Figure 6.3**  
**Fourth Transformation Initiative**  
**Citizen participation**

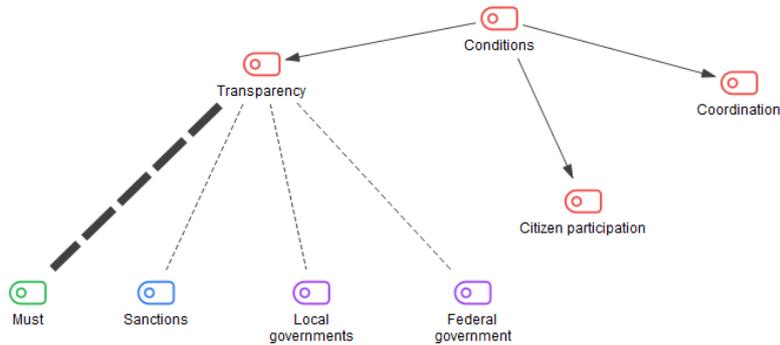


On the issue of transparency, the KL shows that it is a condition that must be guaranteed in a significant measure by the federal government and in second place by local governments. It is combined with the condition of coordination with social actors and related to the issue of preservation of the human right to water. Transparency is less emphasized in the CI, corresponding in equal measure to all governmental levels, and is only related to the element of sanctions. With a similar emphasis, it is mentioned in the FT initiative as a condition depending on all governmental levels, requiring intergovernmental coordination and related not to any punitive issue but to citizen participation.

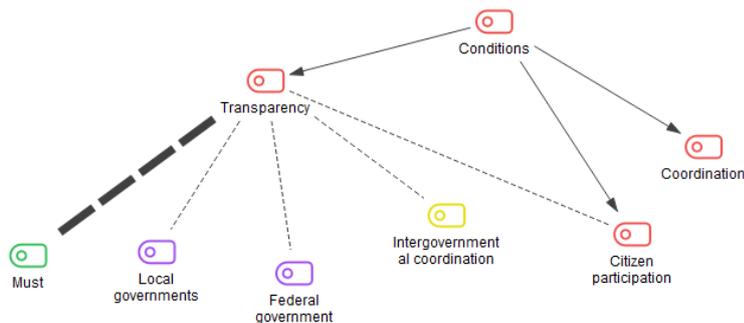
**Figure 7.1**  
**Korenfeld Law**  
**Transparency**



**Figure 7.2**  
**Citizen Initiative**  
**Transparency**

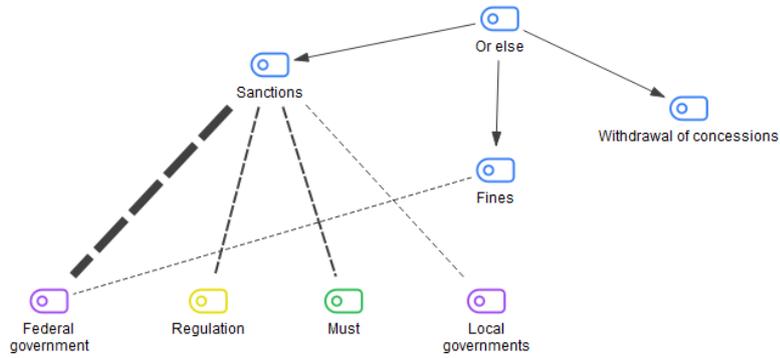


**Figure 7.3**  
**Fourth Transformation Initiative**  
**Transparency**

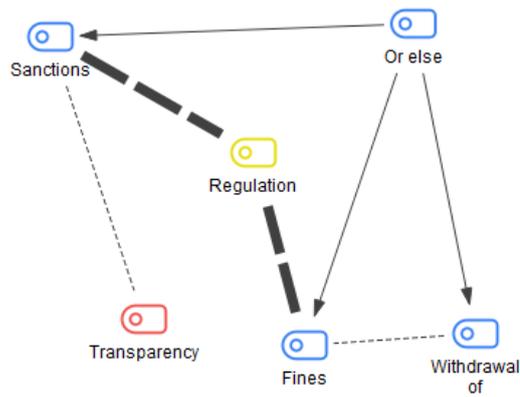


The last category refers to the *Or else* elements, considering the consequences of disrespect of the rules. The KL proposal shows that fines and sanctions are considered, but the former in a less significant way than the latter; both related to federal government, with sanctions being more emphasized. In the CI, both sanctions and fines are strongly emphasized as regulation elements. In a less significant way, sanctions appear related to transparency issues and fines related to the withdrawal of concessions. However, neither the federal government nor the local governments appear related to this or else elements. Finally, in the FT, we observe also fines and sanctions, the former being the most important regulation element and the latter as a secondary one. Sanctions appear at the same time as an issue for the federal government and intergovernmental coordination. For the KI and the FT, withdrawal of concessions is not related to any issue or governmental level.

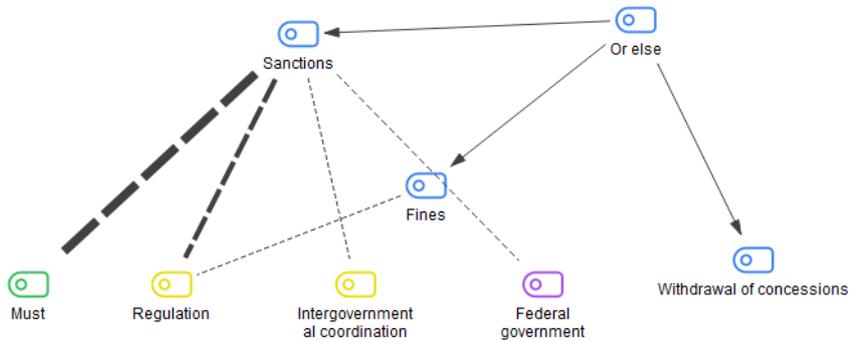
**Figure 8.1**  
**Korenfeld Law**  
**Or else elements**



**Figure 8.2**  
**Citizen Initiative**  
**Or else elements**



**Figure 8.3**  
**Fourth Transformation Initiative**  
**Or else elements**



As a final product of our analysis using MAXQDA, we have a summary table of the frequency of each ADICO element in all three bill proposals (Table 6).

**Table 6**  
Summary of ADICO's elements frequency in the three law proposals

	FT	CI	KL
Attributes			
Federal government	40	14	42
Local governments	44	20	32
Citizens		6	1
Private actors	2		1
Deontic			
Must	99	26	50
May	12	4	9
Should not			
Must not			1
Aim			
Preserve the human right	27	22	31
Intergovernmental coordination	23	1	3
Equity	4	9	9
Regulation	33	15	21
Conditions			
Transparency	34	7	14
Citizen participation	20	22	6
Coordination	17	8	1
Or else			
Sanctions	10	6	8
Fines	4	3	3
Withdrawal of concessions		1	

In this table, proposals are presented from the more recent initiative (FT) to the older one (KL), this is made with the purpose of emphasizing the features of the initiative currently in discussion.

## CONCLUSION

Through this qualitative analysis we were able to observe the main differences and coincidences between the three proposals for a new General Water Law in Mexico. Our analysis has confirmed that the issue of preservation of the human right to water is emphasized in all three initiatives. However, we can observe several differences in the approach to its accomplishment. Only the CI considers it as a collective right in total opposition to the KL, while the FT initiative moderates this vision. As for the responsibility of preserving the human right to water, we observe a centralized vision on the KL, a balanced vision in the

FT proposal which outlines the intergovernmental coordination and a social vision in the CI, with an emphasis on citizen participation and coordination between citizens and governmental actors.

On the specific subject of citizen participation, it appears explicitly as a relevant issue for both the CI and the FT proposals. An important difference is that the FT proposes that citizen participation be carried out through popular consultations. Nevertheless, in the process of codification of the statements included in specific articles of both initiatives, the relevance of citizen participation in the FT proposal weakness while it gets stronger in the KL.

Another common point between the CI and the FT initiatives is the emphasis on transparency which in both cases is associated with local governments, even if the CI refers to communitarian systems and the FT mentions local water systems. Surprisingly, in the issue of transparency, both the FT and the KL propose the creation of a federal instrument called National System of Water Information; this coincidence suggests that both initiatives share a centralized vision of information management.

Private actors have a limited presence only in the KL and the FT initiative, which could probably be explained by the fact that our analysis and codification concentrates on drinking water management without consideration of irrigation districts water treatment or other areas of water policy.

According to the ADICO elements proposed by Ostrom and Crawford (2015), the more complete institutional design is that of the CI, covering all categories and subcategories including the definition of criteria for the withdrawal of concessions. In second place we find the FT proposal, since although it covers the same categories than the KL initiative, it shows a stronger composition in terms of transparency, intergovernmental coordination and regulation. The weakest category for all three proposals is that of the *Or else* components, which shows that Mexican governmental authorities in the federal and local levels are poorly provided for law enforcement in water issues. Consequently, even if regulation appears as an important issue in every initiative, without monitoring and sanctioning mechanisms, the institutional design for water management and particularly for the preservation of the human right to water remains constraint by elements external to the institutional framework. To reduce the influence of political or economic factors on water management, the discussion of the new General Water Law should include the strengthening of these regulatory elements.

## REFERENCES

General Water Law (Citizen Initiative), 02/24/2015.

General Water Law (Korenfeld Law), 03/05/2015.

General Water Law (Fourth Transformation proposal), 11/12/2024



Merino, Mauricio (2004). "Los gobiernos municipales de México: el problema del diseño institucional", *Working paper* No. 145, CIDE, Public Administration Division, Mexico.

Ostrom, Elinor and Sue Crawford (2005). "A grammar of institutions" in: Elinor Ostrom, *Understanding institutional diversity*, Princeton University Press.

La Jornada, newspaper 09/12/24 <https://www.jornada.com.mx/2024/12/09/politica/010e1pol>

#### **Sobre os autores:**

##### **Maria de Lourdes Amaya Ventura**

Politóloga por la UNAM (1993), administradora pública por el CIDE (1997) y doctora en Ciencias Sociales por la Escuela Normal Superior de Cachan, Francia (2005), adscrita desde 2009 al Departamento de Estudios Institucionales de la UAM Cuajimalpa.

UAM Cuajimalpa

ORCID: <https://orcid.org/0009-0002-9404-9069>

E-mail: [lamaya@cua.uam.mx](mailto:lamaya@cua.uam.mx)

