

**Assessing the Democratic Effects of
Groundwater User Associations in Mexico:
The Case of Guanajuato**

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Declaration of Authorship

I, Roman Gomez Gonzalez Cosio, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

The Mexican water polity underwent a deep process of Neo-liberal State-transformation, oriented at modifying the relationship between the State and society and through the implementation of a range of State-strategies. These State-strategies produced a number of drawback and contradictions. One of such strategies was the establishment and institutional development of multi-stakeholder platforms for groundwater resources management (MSPs), a form of socio-political governance arrangement allegedly created to enable a more democratic social participation and stakeholder cooperation throughout the water resources management process. As a result of a 'critical juncture' two models of MSPs were established, one supported by the central-State and another by the state-level authorities in the state of Guanajuato. They had important differences in that the latter represented a more serious attempt to truly enable a socio-political governance arrangement. Today, regardless of the initiative, these MSPs remain extremely weak and their contribution to a more participatory, cooperative and democratic groundwater governance is very limited. The central hypothesis of the thesis is that the principle factor –the culprit– behind these drawbacks and limitations is the State, but that still the MSPs for groundwater governance have generated some form of 'countervailing power' –an opportunity inherent to these governance arrangements– that supports some small, but important democratic effects.

Through the integration of a 'heuristic-analytical' device supported by various theoretical developments –including governance and democratic studies, but mainly underpinned by a Historical Institutionalist approach–, this thesis analyses different critical aspects of this phenomenon. Accordingly, this device is structured in six different moments of analysis that focus on different aspects of the process of Neo-liberal State transformation and the institutional development of the MSPs. The device ultimately seeks to develop and understanding of the prospects and challenges of the MSPs, assess their democratic performance, and investigate the role of the State in the process –including the reasons or factors that determine this role.

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This PhD Thesis is dedicated to my Mother and Father (in loving memory).

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Acronyms and Abbreviations

ANEAS: National Association of Water and Sanitation Utilities
BOD₅: 5-day Biochemical Oxygen Demand
CEAG: Guanajuato State-Level Water Commission
CNI: National Irrigation Commission
Cofepris: Federal Commission for the Protection against Sanitary Risks.
COLMEX: Colegio de México
Conagua: National Water Commission of Mexico
Conanp: National Commission for Protected Areas
Conapo: National Population Council, Mexico
Coneval: National Council for the Evaluation of Social Development Policy, Mexico
COTAS: Technical Groundwater Committee
CRAE: Regional Emergency Attention Centre
CSO: Civil Society Organisation
DOF: Official Government Gazette
ECLAC: United Nations Economic Commission for Latin America and the Caribbean
FAO: United Nations' Food and Agriculture Organisation.
GATT: General Agreement on Tariffs and Trade
GDP: Gross Domestic Product
GWP: Global Water Partnership
HARs: Hydrological-Administrative Regions
IDs: Irrigation Districts
IMF: International Monetary Fund
IMTA: Mexican Institute of Water Technology
IU: Irrigation Unit
IUCN: International Union for the Conservation of Nature
IWRM: Integrated Water Resources Management
IWRN: Inter-American Water Resources Network
LAN: National Water Law
LFD: Federal Duties Law
MASAS: Programa de Manejo Sostenible de Aguas Subterráneas
NPM: New Public Management
OAS: Organisation of American States
OECD: Organisation for Economic Co-operation and Development
PND: National Development Plan
PNH: National Water Programme
PNR: (Former) National Revolutionary Party
PRI: Institutional Revolutionary Party
Profepa: Attorney General's Office for Environmental Protection
RBC: River Basin Council
RBO: River Basin Organisation
REPDA: Public Registry of Water Duties
SARH: (Former) Ministry of Agriculture and Hydraulic Resources
SEDUE: (Former) Ministry of Urban Development and Ecology
Semarnap: Ministry of the Environment, Natural Resources and Fisheries
Semarnat: Ministry of the Environment and Natural Resources
SIAP: Agro-Food and Fishing Information Service
SRH: (Former) Ministry of Hydraulic Resources
SIMSA: Integral System for Sustainable Aquifer Management
TRDs: Technified Rainfed Districts
UNDP: United Nations Development Programme

USD: United States Dollars
WB: World Bank
WMO: World Meteorological Organisation

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“Movement towards radical democratic egalitarian ideals of social and political justice will not happen simply by accidental by-product of unintended social change; if this is to be the future, it will be brought about by the conscious actions of people acting collectively to bring about it. This implies that a theory of transformation needs to include a theory of conscious agency and strategy”

Erik Ollin Wright, *Real Utopias*, p. 370

1. Introduction

1.1. The PhD Project and the Research Problem: Some Choices and Some Contingencies

I started this PhD research project in 1998, so a lot has changed, and many situations and developments have influenced its final output, the current version of this PhD thesis. So, through this introduction I will comment on some of the most relevant situations and developments that had a strong bearing over the form and content of this PhD thesis. Of course one immediate reflection to make is that keeping a PhD project alive for such a long period of time represents a challenge in various dimensions: academically, professionally, financially, and personally. So, as time passed by, the vagaries of life generated conditions that were both enabling and disabling for the PhD research endeavour to continue. Imminently, this PhD thesis reflects this situation, and so attempts will be made to be honest about its appropriateness and limitations. Still, there are also some advantages to this situation that I hope to highlight throughout this introduction, in the methodological chapter and concluding chapters of this thesis.

Through this unusually long period of time, this PhD project devoted efforts to study the Neo-liberal State-transformation process in the Mexican water polity, characterised by important changes in the orientation, role and structure of the State and the implementation of a number of Neo-liberal State-strategies, including amongst them the establishment of governance arrangements –represented in this case by multi-stakeholder platforms for water resources management (MSPs).¹ These MSPs were ‘allegedly’ established to enable greater social participation/involvement and stakeholder cooperation in an attempt to harness wider

¹ A governance arrangement is to be considered an institutional form established by a social actor –most of the times the State– in order to enable greater social participation/involvement and stakeholder cooperation in an attempt to harness wider societal resources –ideas, organisation, finance, technical and managerial capacities, etc.– to address complex, interdependent and cross-cutting governing challenges. Accordingly, governance arrangements are established to respond to specific drivers and are underpinned by specific rationales and policy objectives. The multi-stakeholder platforms for water resources management (MSPs) are precisely socio-political governance arrangements oriented at allowing greater social participation/Involvement and stakeholder cooperation. The concept of ‘platform’ evokes conditions of stakeholder inclusion, political equality and democratic decision-making. MSPs are usually established at the river basin, micro-basin and aquifers levels.

societal resources to solve complex governing problems and implement integrated water resources management (GWP, 2000, 2011; Warner, 2007; Garcia, 2008).²

The National Water Commission (*Comisión Nacional del Agua, CONAGUA*) established these MSPs at the river basin, micro-basin and aquifer level across the country.³ My interest in this research subject derives from the scholarly concerns regarding the important drawbacks and contradictions in the implementation of these Neoliberal State strategies, that in the case of the establishment of the MSPs for groundwater management is represented by a failure to constitute them as meaningful socio-political governance arrangements capable of effectively addressing severe groundwater management challenges.

An important item to address at this very initial part of this PhD document concerns the need to change the title of the thesis. In this introduction I have an opportunity to make amends. Accordingly, a more accurate title for this PhD thesis is: “The Process of Neoliberal State-transformation and the Establishment of Multi-stakeholder Platforms for Groundwater Resources Management in the Mexican Water Polity: A Democratic and Meta-governance Challenge”. I encourage the reader to take note of this important change, because titles do serve to orient and prepare readers for the narrative and content that follows.

² IWRM is a water resource management policy paradigm that claims that water resources management should be managed through a coordinated approach linking water resources with natural resources management (i.e. land, forests, bio-diversity) and development planning. It also maintains that water resources can only be managed through a participatory process that includes all relevant stakeholders in decision-making processes. It makes provision for gender-awareness throughout the water resources management process, including policy design and implementation. Finally, and a bit more controversially, because of its implications, it considers that water is an ‘economic good’, and thus the economic and social value of water should be taken into consideration in policy decisions (GWP, 2000).

³ The CONAGUA is the government apex-institution in the water policy sector. It has a federal remit, and it is a de-concentrated body of the Secretary of the Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT*). The politico-legal figure of ‘de-concentrated’ body in the Organic Public Administration Law (*Ley Orgánica de la Administración Pública, LOAP*) implies that the CONAGUA depends from the SEMARNAT, in that the General Director responds to the Secretary of State of SEMARNAT, and the CONAGUA receives its yearly budget from the overall SEMARNAT’s budget (roughly 70% of its total goes to Conagua). In practice the CONAGUA is mostly independent in administrative, legal, and political terms, and the General Director of CONAGUA takes decisions independently, and mostly through political accords with the Office of the Presidency (*Oficina de la Presidencia de la República*) and the State Governors. This, of course, has a negative impact in the ‘greening’ of the CONAGUA’s institutional objectives and actions, but it is part of the predominant political culture. In practice, in the Mexican political system, the CONAGUA is considered to be ‘more powerful’ than the SEMARNAT and the figure of its General Director commands more political attention than that of the Secretary of SEMARNAT.

At the beginning of my doctoral research, the literature on the 'governance phenomenon' fascinated me and attracted my academic attention, because it somehow pursued the study of an emerging and widespread social phenomenon through a comprehensive, perhaps systemic approach or perspective. This had great appeal to me, as throughout my academic and even professional life I have attempted to be more of a 'generalist', rather than a 'specialist', and enjoyed putting different pieces together. So, it is possible to consider that the overall research focus and orientation of this PhD thesis seeks to offer a more 'generalist' perspective of the phenomenon under study, highlighting a number of critical factors and aspects that are relevant in scholarly terms. This personal orientation may also explain the reason why I have been drawn to use Historical Institutionalism (HI) as a source of theoretical inspiration to sustain important elements of this doctoral research endeavour, as the reader will soon realise. In my opinion, it is truly compelling how some HI scholars really manage to mesh together, through a coherent explanatory narrative, ideologies, policy ideas, institutional innovations, political forces and social struggles (Huntington, 1968; Barrington, 1966; Skocpol, 1979; Peters, 2000; Steinmo, 2008). This PhD seeks to somehow honour this tradition, because I consider that in order to study the process of Neoliberal State-transformation in the Mexican water polity it will be necessary to look precisely at how the aforementioned elements interplay, and then construct a coherent and insightful narrative of the research subject and a research problem.

Towards the mid 1990s scholarly studies on the 'governance phenomenon', referring to the process of State-transformation and the implementation of governance arrangements oriented at enabling greater social participation and stakeholder cooperation to address complex governing policies in polities around the world were not that commonplace. So, it was only possible to find a few interesting theoretical works that attempted to develop comprehensive theoretical perspectives on the 'governance phenomenon', its main drivers, characteristics, institutional arrangements, policy mechanisms, and impacts over polities (Kooiman, 1993; Kickert, Klijn and Kppenjan, 1997; Pierre, 2000; Pierre and Peters et al., 2000). In those days it was even more difficult to find robust appropriations of the 'governance notion' in other policy fields rather than that of the political sciences –perhaps the urban policy sector being the exception and representing the vanguard (Brindley, Rydin, and Stoker, 1995; Stoker, 1996; 2000; Healey, 1997; Pierre, 1999; Gualini, 2001).

It was not until around 2002 when the first academic and specialised documents on 'water governance' started to appear in the water policy community, following more or less a discontinuous evolution, and also initially showing also some important misunderstandings or misappropriations in the use of the concept (Rogers, 2002, GWP, 2003, Solanes and Jouravlev, 2006). Most of these works attempted to retrieve ideas from different discourses on governance in the political sciences, and somehow only managed to describe the 'water governance phenomenon' mostly from the perspective of 'good governance' (i.e. from the perspective of analysing the necessary State capacities that have to be in place in a polity to provide for successful governing outputs or governability), and thus failing to capture the usefulness of the 'governance notion' as a means to analyse the prospect and challenges in the enablement of new socio-political governance arrangements. Perhaps it was not until the mid-2000's when this situation started to change, and more insightful work on water governance was produced (Allen, Davila, and Hoffman, 2006; Castro, 2007, Warner, 2007; Perret, Farfoli and Hassan, 2007). So back in the beginning of 2000's, at that very initial stage of my doctoral research there was definitely a research void that represented a clear opportunity to innovate. Of course as time passed, this void was gradually filled, a situation that later demanded actions to update and adjust the theoretical framework, a point I will address later in this introduction.

The task ahead then was to select which type of MSPs to analyse for the case study and between the RBCs, river basin commissions and the COTAS. I chose the COTAS for reasons that I will explain below. The COTAS are MSPs for groundwater resources management that exist in the 2004 National Water Law (2004 NWL and valid today) as auxiliary institutional bodies of the RBCs and have been established in the Mexican water polity since 1997.⁴ They are established at the territorial-administrative level of aquifers, and allegedly are articulated or embedded in the institutional structure of the RBCs as auxiliary bodies, and with the objective enabling greater social participation/involvement and stakeholder cooperation in groundwater management processes. With this knowledge in hand, I chose the COTAS, because the phenomenon under study would be relatively more simple and localised in a smaller geographical area –the aquifer, against the river basin, a situation that

⁴ This notion of 'auxiliary bodies' of the RBCs will be clearly explained later in this document, but, putting it simply now, it refers to the notion that the COTAS are embedded in the institutional arrangements of the RBCs and in order to give them voice in policy decisions at the river basin level, but that affect groundwater management also. In practice this representation is extremely weak, as I will discuss later in this document.

demanded trips to different riparian states throughout the fieldwork. Also, many civil servants at CONAGUA emphasised that the ‘socio-political and institutional aspects’ surrounding groundwater management were mostly underdeveloped, a context that created a relevant scholarly research opportunity.

At that time the Mexican water polity was beginning to acknowledge severe groundwater over-exploitation problems, as of the 653 aquifers in the country, close to 135 were being severely over-exploited, putting at risk the water security of various human settlements and the livelihood of communities across the country.⁵ It became ‘clear’ then for the CONAGUA that the traditional centralised and hierarchical legal policy instruments had been inadequate to address sustainable groundwater management challenges, and so the establishment of the COTAS was considered as an alternative strategy. This policy choice was greatly influenced by the ideas regarding Integrated Water Resources Management (IWRM) supported by the World Bank (WB) and the World Meteorological Organisation (WMO), as well as the wider context of Neo-liberal State-transformation impelling for ‘enabling decentralisation and social participation’ –at least at a discursive level. Initially, there were high expectations that the COTAS could support the much-warranted participatory, democratic and sustainable groundwater management that the Mexican water polity so desperately required. Unfortunately, the passage of time proved those expectations wrong, and for a number of reasons that I will address in this thesis.

It is then, that through interviews with government experts, it was possible to pinpoint initially one COTAS as a research sample for the PhD research, the Queretaro Valley COTAS, that according to the opinion of governments officials in the CONAGUA it was the most advanced MSP for groundwater management of its kind in Mexico, and so perhaps some interesting scholarly observations could be made about its institutional development process, its prospects and challenges. This COTAS was part of a World Bank groundwater management programme to support sustainable groundwater resources management, The Sustainable Management of

⁵ Water security is defined as: “The capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human-well being, and socio-economic development, for ensuring protection against water-borne pollution and water-related diseases, and for preserving ecosystems in a climate of peace and political stability.” UN-Water, 2013, vi). In Mexico, as in many places of the world, human settlements and productive activities may depend on groundwater to a very high percentage, sometimes even 90% or more. This situation in Mexico makes groundwater over-exploitation a matter of water security(Conagua, 2000).

Groundwater Programme (*Programa de Manejo Sostenible de Aguas Subterráneas, MASAS*).

After this initial exploratory fieldwork and through further engagement with the latest governance literature at that time, it was possible to identify some more refined elements of a research problem. A number of governance scholars (Fung and Wright, 2003; Swyngedouw, 2003; Hajer and Wagenaar, 2003; Castro, 2007) were addressing important concerns regarding the democratic performance of socio-political governance arrangements, as according to them they presented important risks of being either co-opted by State institutions; captured by powerful actors; remaining simply unrepresentative and exclusionary; and simply of being more generally ineffective. These scholars also criticised the post-political view of governance –that almost ‘enshrines’ its positive traits as a political strategy–, otherwise highlighting that the State and power are at the centre of socio-political governance arrangements, and thus it is important to be more critical about them. Hence, these scholars in the governance field were then working –and are still working– on the development of appropriate analytical frameworks to study the role of the State and power in the functioning and development of socio-political governance arrangements (Jessop, 2002, 2008; Torfing and Trinatafillou, 2011; Torfing, Peters, Pierre and Sorensen, 2012), and also on the study of their democratic performance (Swyngedouw, 2006; Bell and Hindmoor, 2009; Torfing and Trinatafillou, 2011; Torfing, Pierre, Peters and Sorensen, 2012). In response to this scholarly concern I devoted my attention to find a way to support the systematic study of the role of the Mexican State in the establishment and institutional development of the MSPs for groundwater resources management and to also study of their democratic performance.

In order to address the study of the democratic performance of the COTAS, I reviewed different theories of democracy that could prove useful for this endeavour, a process that concluded with a fruitful encounter with the associative and deliberative democratic theories (Cohen and Rogers et al., 1997; Dryzek, 2000; Elster et al., 1998; Smith, 2006; Warren, 2001; Bacstrand, Khan, Kronsell and Lovbrand, 2010). In my opinion, the associative and deliberative democratic theories offer clear insights on the contribution that associative and deliberative activity has over the democratic performance of institutional arrangements and polities, including socio-political governance arrangements. Together both theories present a number of potential democratic effects of associative and deliberative activity and also

describe the conditions that seem to affect the development or attainment of such potential effects. Consequently, both theories offered a suitable analytical power to study the democratic prospects and challenges of the MSPs. Thus, I had found a pathway to address the second aspect of the research problem.

Then the PhD research process suffered somewhat of an episodic interruption and re-engagement phase that lasted for several years –more than 8 years. Simply life got in the way of the PhD project and due to a number of personal choices and also some unforeseen and compelling contingencies. Still, during this period of time, I had the opportunity to work for two years (2002-2004) at the River Basin Councils Management Office of the CONAGUA. During this period of time I was involved in coordinating technical assistance through diverse projects aimed at supporting the institutional development of MSPs. Most relevantly, this opportunity allowed me to travel and witness some of the associative and deliberative activity behind the organisation and activities of the RBCs and the COTAS, and also to have contact with water users –who frankly were not very happy about the role and structure of the RBCs and the COTAS at that time.

After these two years, I shifted jobs, but remained working at the CONAGUA (2004-2007), this time at the Deputy Planning and Programming Office, where I participated in a number of initiatives, including the national water planning and programming processes, and the organisation of the 4th World Water Forum (2006). Working at the IV World Water Forum Secretariat was interesting, amongst other things –and relevant to this PhD research– because I had the possibility to organise a High-Level Panel on Empowerment and Democratisation in the Water Sector, and through which a number of initiatives from around the world were shared precisely on the topic of democratisation of local water polities and the empowerment of social actors through progressive socio-political water governance arrangements. Finally, during this episodic interruption I also had the opportunity to work for UN-Habitat under the Water and Sanitation for Cities Programme (2007-2013), a situation that allowed me also to work on pro-poor water governance projects in many peri-urban areas of the country. It was then in October 2011 when I decided to officially re-engage with the PhD project.

Today ‘governance’ has become a buzzword across policy sectors –including the water policy sector– and so what was once really a ‘vanguard’ topic, is now absolutely commonplace. Scholars are now even ‘rethinking governance’ or

'revisiting governance' (Bell and Hindmoor, 2009). I suppose these are the problems of taking too much time to finish research work, the innovative edge is easily lost. Still, also time worked in my advantage, because it allowed for the phenomenon under study to unravel through a longer period of time and so some of the observations made today could not have been made if I had finished earlier. Current studies on the 'governance phenomenon' offer a quite rich grasp on a number of different manifestations of such, to the point that it is possible to find many different 'governance connotations' each referring to the different 'faces' of the phenomenon (i.e. global governance, good governance, corporate governance, governance and the New Public Management (NPM), multi-level governance and socio-political governance)(van Kersbergen and van Waarden, 2004). It is also possible to find several approaches (i.e. the society-centred, state centric and state centric-relational approaches) each attempting to gain analytical insight over governing processes by looking at different aspects of the process of State-transformation and the governance phenomenon (Bell and Hindmoor, 2009).

These recent theoretical findings demanded to position this PhD project within this comprehensive 'governance concourse'.⁶ Accordingly, I had to decide to focus on one of such 'governance connotations', and also to position the PhD *vis à vis* the different governance approaches. For matters that will be thoroughly explained in chapter 2, this PhD is placed within the governance studies that focus on the socio-political governance connotation, and following the State-centric relational approach. Briefly, the most basic argument behind this decision is that, as such, this PhD research is interested in the process of Mexican State-transformation, the role of the State in the establishment and development of MSPs for groundwater management, and the functioning and performance of such, including their democratic performance, as already mentioned.

With this latest engagement with the governance studies literature, I confirmed that my research questions remained valid and new debates and concepts were found that supported the PhD research endeavour and also helped to maintain some

⁶ Here I borrow from J Dryzek's (1996) description of a democratic concourse. Accordingly a concourse represents a place where ideas, positions, opinions, arguments, criticisms, models and theories run together; it is the sum of communication on any topic. In this case the use of the notion of 'concourse' may also be applied to the governance phenomenon, as the debate still seems to be very much alive, open-ended and uncertain, and so remaining subject to contemporary contributions and innovations. Please see: Dryzek, J (1996), *Democracy in Capitalist Times*, Oxford, UK, Oxford University Press.

innovative edge. Firstly, I could corroborate that the debate regarding the democratic performance of socio-political governance arrangements is still very much alive (Torregrosa, Paré, Kloster, and Vera, 2010; Torfing and Trinatafillou, 2012; Torfing, Peters, Pierre and Sorensen, 2012). Scholars are still attempting to find ways to study the democratic performance of socio-political governance arrangements (Torfing and Triantafillou, 2011). Secondly, I came across with the 'meta-governance' notion, a concept that scholars started to use to refer to the strategies and capacities that the State is using to govern over new socio-political governance arrangements (Jessop, 2004; Meuleman, 2008; Bell and Hindmoor, 2009; Torfing, Peters, Pierre and Sorensen, 2012). Hence, from this last attempt to update the theoretical engagement, it was possible to confirm that assessing the democratic performance of socio-political governance arrangements is still a timely scholarly research question, and that there is a need to study the State's meta-governance strategies and capacities. Thus, the long journey of underpinning the production of this thesis came to fruition when I managed to identify the relevance and room for innovation afforded both through the theoretical lens adopted and the empirical conditions of the case study.

The following task was to reengage with fieldwork again (Summer 2011), only to find the need for some radical new adjustments. Unfortunately, the case study selected many years ago, the Queretaro Valley COTAS, had ceased to function since some years back, and after having very little influence over groundwater management processes. There were, of course, some aspects to be commented on this situation; especially regarding the lack of support from the State in its institutional development, but the main problem was that case study was 'dry'. A new mega-aqueduct had been finished, bringing water to the Querétaro Valley from afar, and diminishing the pressures and the need for water demand management strategies –such as establishing and developing governance institutional arrangements, like the COTAS. This situation also pointed to traditional supply-driven approaches and a lack of true commitment to IWRM. Still, many changes in the local actors, scant possibilities of further pursuing primary data collection, and the presence of very weak democratic effects –if at all–, greatly hindered the possibilities and convenience of continuing with the study of the Queretaro Valley COTAS. Overall, this situation offered important barriers to continue with this case study, so an alternative had to be pursued.

It was then that after having new interviews with academics and government officials, as well as with the engagement with new sources of secondary data collection (Marañón, 2010, Wester, Sandoval, Hoogesteger, 2011), that the informed impression was that the COTAS in the State of Guanajuato –and the Laguna-Seca COTAS in particular– offered a richer and even ‘positive paradigmatic’ experience concerning to the institutional development process of the COTAS and their role in groundwater management. This is due to the important and initial support from state-level government institutions, most relevantly the Guanajuato State Level Water Commission (*Comisión Estatal del Agua de Guanajuato, CEAG*) and more recently the CONAGUA’s State Office in Guanajuato. So the next undertaking was to engage in a second fieldwork conducted (Summer of 2011 to Winter 2012) to gather information on the COTAS in the State of Guanajuato, and specifically the Laguna-Seca COTAS. This situation, again, represented some logistical and financial challenges that had to be addressed in the best possible way.

This PhD thesis produced insights regarding to the efforts made by the Mexican State to consolidate the Neoliberal Statehood project in the Mexican water polity through the implementation of a number of State strategies. Regardless of these efforts, most of these State-strategies show some important drawbacks and contradictions that in time have produced an important deterioration and depletion of water resources, and a governing crisis across the Mexican water polity. The thesis goes on and focuses on the implementation of one of such State strategies, the implementation of MSPs for groundwater management, COTAS, looking at their prospects and challenges, including their democratic performance –and through the particular case study of the Laguna-Seca COTAS. The PhD also looked at the existing meta-governance strategies and capacities of the Mexican State to govern over the MSPs, COTAS and to support their institutional development, only to find that these are only very weak. Finally, some interpretations are made regarding the role of the Mexican State in the institutional development of the COTAS, highlighting that this role is full has been mostly limiting and contradictory.

1.2. Constructing a Heuristic-Analytical Device to Interrogate the Process of Neoliberal State-transformation in the Mexican Water Polity and the Establishment of MSPs for Groundwater Resources Management

In order to support the study of the Neoliberal State-transformation process in the Mexican water polity and the implementation of a number of Neoliberal State-

strategies, including the establishment of governance arrangements –represented in this case by MSPs for water resources management–, their prospects and challenges, –including their democratic performance–, and the role of the State in their establishment and development, it was necessary to develop a heuristic-analytical device.⁷ This heuristic-analytical device's architecture is supported by different theoretical sources and also by my own professional experience working in the CONAGUA. The heuristic-analytical device presents six different 'moments of analysis' that support different 'study stages' or 'study focuses'. These moments of analysis are carried out sequentially, and together seek to provide a comprehensive and 'generalist' perspective of the social phenomenon under study. Accordingly, the heuristic-analytical device is comprised by the following moments of analysis.

The first moment of analysis (*i. Theoretical Engagement and Explanandum*) corresponds to the general identification and description of the social phenomenon under study (i.e. the research problem) and the theoretical developments that support its study. This moment of analysis develops a coherent description of what is to be studied and the reasons why it should be studied (i.e. the *explanandum*). It presents the theoretical sources that support and justify the research project, that in the case of this PhD correspond to the following theoretical fields: governance studies, Historical Institutionalism, State theory –mainly the post-Marxist and Strategic-relational approach–, power theorisations, the associative and deliberative democratic theories, and the more recent meta-governance studies. Together these theoretical sources support the definition of the research problem and underpin the analytical power of the heuristic-analytical device.

The second moment of analysis (*ii. Historical and Contextual Institutional Analysis*) provides a historical and contextual analysis, that in this case represents a historical and analytical narrative of the different Statehood formations in the Mexican water polity and their pertaining State-projects and strategies, including –briefly– the State and Nation-building Statehood formation, the Developmental-Interventionist Statehood formation, and –in more detail– the Neo-liberal Statehood formation in the Mexican water polity. In practice, although some important facts of the first two Statehood formations are presented, the narrative is kept short –for reasons of

⁷ I am grateful to Dr Adriana Allen for pointing out the virtues of developing an analytical device and also for suggesting revising David Harvey's device to study socio-ecological transformations. Please see: Harvey, D (1996) *Justice, Nature and the Geography of Difference*, Oxford, UK, Blackwell Editorial.

space—, and only highlighting some important consequential impacts that exert some path-dependencies. In reality this moment of analysis focuses in the process of Neoliberal State-transformation, developing a more thorough narrative of the different State-strategies implemented to transform the Mexican water polity, including the establishment of MSPs for water resources management. Very importantly, this moment of analysis seeks to highlight some important drawbacks and contradictions of the Neoliberal State-strategies in an attempt to offer a critical and overarching view regarding the process of Neo-liberal State-transformation.

The third moment of analysis (*iii. Socio-political Governance Arrangement's Institutional Analysis*) focuses on the description and assessment of the actual institutional history, design and development of the socio-political governance arrangement under scrutiny, the MSPs for groundwater resources management in the Mexican polity, the COTAS. It engages with a short history of groundwater management practices and institutional arrangements in the Mexican water polity, to then turn to describe the institutional design features of the MSPs. Once the general characteristics of these MSPs are established, it then provides a general comment on the main drawbacks in the institutional development of the COTAS. Then, it turns to the specific study of the State of Guanajuato COTAS, highlighting some important progressive and reformist characteristics, but also some drawbacks and contradictions. Here it is important to establish that they are two different approaches to the design and implementation of the COTAS, one represented by an initiative led by the CONAGUA (central offices), and another by the Guanajuato State Water Commission (Comisión Estatal del Agua, CEAG) and the CONAGUA's State Office in Guanajuato. Both initiatives are compared, highlighting some important conceptual differences, and also some important divergences in the role of the State (at the level of the local state) in their institutional development.

The fourth moment of analysis (*iv. The Socio-political Governance Arrangement's Democratic Performance Assessment*) focuses on the study of the democratic performance of the selected MSP for groundwater management, the Laguna-Seca COTAS. This sample was selected for its exemplary work and social recognition. The democratic performance assessment of the Laguna-Seca COTAS is backed by the analytical power harnessed by the associative and deliberative democratic theories, and that supports the identification of some ideal-type 'potential democratic effects' that are later measured against what really has been attained by this COTAS. Also some explanation is given regarding the necessary 'preconditions' that seem to have

affected the democratic performance of this COTAS. Overall this engagement helps then to elaborate on the prospects and challenges of the Laguna-Seca COTAS, and perhaps through some form of generalisation to extend some wider comments regarding the COTAS in Mexico. The democratic performance assessment of the COTAS is very important for this PhD work, because a key assumption is that they can contribute to democratise their local water polities against the drawback of a highly centralist, hierarchical and even autocratic State.

The fifth moment of analysis (*v. The State Meta-governance Capacity Assessment*) focuses in the study of the State' meta-governing strategies and capacities, that in this case are represented by two different approaches, CONAGUA's (at the level of the central State) and the CONAGUA State Office in Guanajuato. So, this moment of analysis devotes attention to the description and assessment of important meta-governing strategies and capacities, including amongst them: steering and coordinating capacities; resourcing and technical support; democratic vigilance; and monitoring and evaluation. So the task was to assess of these strategies and capacities in the context of the Mexican water polity –and implemented over the COTAS.

Finally, the last moment of analysis (*vi. The Role of the State in the Establishment and Development of Socio-political Governance Arrangements*) offers some concluding reflections on the overall process of Neo-liberal State-transformation, and the most important drawbacks and contradictions in the establishment and institutional development of the MSPs. This moment of analysis seeks to comment on the nature and orientation of the Mexican State, that shows an important bias against truly enabling and authentic and democratic social participation/involvement and stakeholder coordination, and in favour of reproducing the existing socio-political relations of economic power and the enablement of new forms of capital accumulation –accumulation by dispossession. Overall this situation regarding the role of the State has affected the prospects of the MSPs, and more broadly water resources management. Still the MSPs for groundwater resources management offer a glimpse of hope, as in the end the virtue of socio-political governance arrangements is that they are political venues where socio-political struggle renders political outcomes open-ended, uncertain, and contingent.

- *The Main Research Questions*

What have been the main characteristics of the Neo-liberal State-transformation process in the Mexican water polity? What were the main State-strategies implemented and what did they achieve? What have been the main drawbacks and contradictions in the implementation of these State strategies?

What is the institutional history of groundwater management in the Mexican water polity? What are the institutional design features of the MSPs for groundwater management, COTAS? What are the prospects and challenges of these MSPs for groundwater management at a national level and also in the State of Guanajuato?

What has been the democratic performance of the Laguna-Seca COTAS? What kind of democratic effects has it attained, and what preconditions have affected this process? Are the COTAS a source of democratisation in the context of the Mexican water polity?

What are the main meta-governance strategies capacities of the Mexican State over the MSPs for groundwater Management, the COTAS?

What has been the role of the State in the establishment and institutional development of the MSPs for groundwater management, COTAS? What does this role tell us about the nature and characteristics of the Neo-liberal Statehood Formation in Mexican water polity?

- *The Research Hypothesis*

The Mexican State went through a complex Neo-liberal transformation process that entailed the implementation of series of State-strategies that sought to transform the water polity. Overall, these strategies show important drawbacks and contradictions that ultimately have created serious governing problems and path dependencies –deliberate and inadvertent. In the case of the establishment of MSPs for groundwater resources management (COTAS) –like in the case of the other State-strategies–, the role of the State in their institutional development has been mostly contradictory, at best inconsistent. In the case of groundwater management, the Mexican State appears mostly concerned with enabling economic development and the process of capital accumulation, at the expense of a more sustainable, participatory and democratic groundwater management, and thus there has been a contradictory interest in enabling the institutional development of the COTAS. Consequently, the COTASs' performance –including their democratic performance– has been meagre and peripheral in terms of addressing groundwater management challenges and democratising the local water polity. Still, it is possible to recognise some prospects, especially through the 'countervailing power' that has been generated at the centre of the COTAS, and also through the recent implementation

of some apparently more enabling meta-governance strategies implemented by more 'progressive' cadres of the CONAGUA's State Office in Guanajuato. This confirms the assumption that the MSPs for groundwater management, COTAS, are not devoid of politics; they remain open-ended and uncertain institutions with outcomes that seem contingent to the array of social forces in and around them, and that socially construct them.

1.3. On the Thesis' Structure

This PhD thesis is divided subsequently in an introduction and 6 chapters as follows. Chapter 1 on the governance phenomenon describes the general theoretical and analytical pathway and research focus of this PhD research. Relevantly, this theoretical chapter –alongside chapter 2– supports the architecture of the heuristic-analytical device. It starts with a description of the 'governance notion' as an evolving an increasing prevalent State-strategy and part of a broader process of State-transformation, its main drivers, characteristics and concerns. It also depicts the appropriation of the governance debate in the context of the water sector. It then presents the main approaches to the study of the governance phenomenon, the society-centred governance approach and the State-centric governance approach, and its corollary the State-centric relational approach; stipulating that this PhD is situated under the State-centric relational approach and for reasons that will be clarified later in this document.

Then the chapter offers also an engagement with three important concepts: institutional analysis, the State and power in the context of the socio-political governance phenomenon. This section ascertains the role of Historical Institutionalism –compared to that of Rational Choice and Sociological Institutionalism– in the study of the process of State-transformation and the establishment of socio-political governance arrangements, hence, ascertaining HI as the preferred approach for this PhD. Accordingly HI is interested in unfolding the relationship between ideologies, policy ideas, institutional structures, and social struggles, an important aspiration of this PhD. Then there is a concise presentation on the concept of the State, based on a post-Marxist and the strategic relational approach interpretations. This brief engagement with the concept of the State will help provide analytical power to study the role of the Mexican State in the establishment of socio-political governance arrangements, and more broadly water resources management. Afterwards, there is also a brief engagement with the

concept of power, and from the perspective of its role in the context of socio-political governance arrangements –power in, power of or countervailing power, and power over socio-political governance arrangements. This engagement also generates some analytical edge to later study power relationships in the context of the MSPs for groundwater resources management in the Mexican water polity. The chapter also devotes efforts to describe the MSPs for water resources management, as a form of institutional innovation for socio-political water governance. It develops some general considerations and important dimensions regarding their characteristics as an institutional form, such as: scale, scope and structure; the form of stakeholder participation –rights, responsibilities and roles of the stakeholders–; and the effectiveness, efficiency and equity attained. These dimensions are later –in chapter 6– established and described in the context of the MSPs for groundwater management, the COTAS. These theoretical engagements later support the analytical power of the third moment of analysis (iv. Socio-political Governance Arrangements’ Institutional Analysis)

Afterwards, it presents the quandary regarding the democratic prospects and challenges of socio-political governance arrangements, reviewing some scholarly positions and theoretical advancements regarding this topic. This engagement serves to clarify the relevance to further the study of the democratic performance of socio-political governance arrangements, and so the pertinence of engaging with the associative and deliberative democratic theories –in chapter 2. Finally, the chapter engages with the meta-governance concept, a fairly recent conceptual innovation. The section on meta-governance presents some of the most relevant elements regarding the State’s meta-governance strategies and capacities, such as: coordination, steering, enabling, resourcing, democratic vigilance, monitoring and evaluation, etc. This engagement will then support the analytical power of the fifth moment of analysis of the heuristic-analytical device (the State’s Mega-governance Capacities Assessment). Overall, these actions support the presentation of the general theoretical debate that supports the formulation of part of the research problem or *explanandum*.

Chapter 2 engages with the debate on the associative and deliberative democratic theories. The purpose of this theoretical engagement is based on the assumption that both theories can support the study of the democratic performance of socio-political governance arrangements. Accordingly, this chapter presents both theories’ main tenets and concepts, followed by an elaboration on an exposition of

'ideal type' potential democratic effects of associative and deliberative activity in the context of institutional settings, and characterised as: developmental, public sphere and institutional effects. So this engagement, as already mentioned, serves to construct the fourth moment of analysis of the heuristic analytical device (iv *the Socio-political Governance Arrangement's Democratic Performance Assessment*). Consequently, the democratic performance of the Laguna-Seca COTAS will be studied according to the attainment of these potential democratic effects. The discussion continues by establishing the preconditions for associative and deliberative activity, and in this case characterised under: institutional design features and contextual background conditions. So these preconditions are again studied in the case of the Laguna-Seca COTAS. Overall this reflection supports the assessment of the democratic performance of the Laguna-Seca COTAS, and also serves to develop part of the research problem or *explanandum*.

Chapter 3 presents the heuristic-analytical device, outlined in the previous section.

Chapter 4 represents the methodological chapter. This chapter elaborates on different methodological aspects, including the research strategy –a qualitative case study–, and the research methodology and research methods –including some words on the literature review and fieldwork. It then engages with a brief narrative on the interpretation of the case study findings, theory building, and the development of generalisations. It also presents some ethical and other considerations. Finally, it presents the chosen research inquiry paradigm –Critical Realism–, elaborating on some relevant aspects and goals of this approach.

Chapter 5 represents an account of second moment of analysis of the heuristic-analytical device (*the Historical and Contextual Institutional Analysis*). This chapter presents a brief narrative of the main characteristics of the Nation- and State-building and the Developmental-Interventionist Statehood formations in the context of the Mexican water polity, highlighting some consequential impacts that have imposed some path-dependencies. Through this brief narrative, the chapter presents some important historical facts, State-strategies, policy ideas and institutional innovations of each of these Statehood formations. It then turns to develop a more in-detail narrative of the process of Neo-liberal State-transformation, and the main State-strategies implemented, including: the 'pursuit of integrated water resources management (IWRM), an important institutional and administrative-territorial re-organisation of the water polity, a new National Water Planning process, the

decentralisation and municipalisation of water supply and sanitation services, the opening for private sector involvement in water supply and sanitation services (WS & S services), the irrigation districts decentralisation or transfer process, the establishment of system of water property rights –and hence the enablement of water markets–, and the establishment of MSPs for integrated water resources –river basin councils (RBCs), river basin commissions, and groundwater technical committees (COTAS). Overall this chapter attempts to highlight important drawbacks and contradictions in the implementation of such State Strategies, and that somehow affected the consolidation of the Neoliberal State project in the Mexican water polity. This chapter also serves to begin to illustrate the role of the Mexican State in water resources management.

Chapter 6 represents the implementation of the third and fourth moment analysis of the heuristic analytical device (iii. *Socio-political Governance Arrangement's Institutional Assessment*, and iv *The Socio-political Governance Arrangement's Democratic Performance Assessment*). This chapter starts with a brief historical presentation of groundwater management practices and institutions in the Mexican water polity, leading to the establishment of the MSPs for groundwater management, COTAS at the end of the 1990s, and as part of the repertoire of Neoliberal State-strategies. Subsequently, it presents the institutional design analysis of the COTAS, by engaging in the study of their institutional design features, considered through the perspective of the MSPs literature. It then continues with the presentation of the establishment and institutional development of the COTAS in the State of Guanajuato, highlighting some important paradoxical aspects and also some drawbacks and contradictions. After this action, another section engages with the democratic performance assessment of the Laguna-Seca COTAS –the first MSP for groundwater management established in the State of Guanajuato–, describing its main democratic effects and the preconditions that seem to have affected the attainment of such effects. As the reader will see the democratic effects, although being meagre, remain, in principle, important.

Chapter 7 engages with implementing the fifth and sixth moments of analysis (v. *The State's Meta-governance Capacity Assessment*, and vi. *The Role of the State in the Establishment and Development of Socio-political Governance Arrangements*). Accordingly, this chapter will describe the main meta-governance capacities of the CONAGUA and the CONAGUA State Office in Guanajuato, including amongst them: steering and coordinating capacities, resourcing and

technical support, democratic observance, monitoring and evaluation. This action will include the presentation of some general meta-governance strategies being currently considered by CONAGUA (central office) and the CONAGUA's State Office in the State of Guanajuato. On this aspect, I will present some basic aspects of the Integral System for the Management of Aquifers (*Sistema Integral para el Manejo de Acuíferos, SIMSA*) that as already mentioned seems to be an interesting and progressive meta-governance strategy. This chapter concludes with some reflections on the role of the State in the institutional development of the MSPs for groundwater management, COTAS.

Chapter 8 develops some overall end-comments regarding the doctoral research process the thesis. It reflects on the most important limitations and attainments. It considers some future research pathways to complete and further the research endeavour on the Study of the process of State-transformation and the establishment of MSPs for groundwater management, including the possibility of providing some form of policy recommendations to support the performance of the MSPs for groundwater management. It also presents some other interesting research pathways identified from the research process.

Annex-A presents the 'constitutive act' of the Laguna-Seca COTAS, and for the interested reader (in Spanish). In this document the reader will appreciate certain aspects the institutional design of the Laguna-Seca COTAS.

Annex-B presents the 2012 Agreement of Cooperation between the CEAG and the Laguna-Seca COTAS and the Annual Workplan. In this documents the reader will have an opportunity to review the form of relationships between the State and the Laguna-Seca COTAS.

Annex-C represents the list of key informants.

Chapter 1. The Study of State-transformation Processes and Socio-political Governance: *The First Moment of Analysis*

1.1. Introduction

The governance notion refers to important processes of State-transformation and to changes in the way polities are being organised to enable greater social participation/involvement and stakeholder cooperation in an attempt to harness wider societal resources to face old and emerging governing challenges. As a conceptual construct and an empirical phenomenon, governance has had important impacts across policy sectors and polities around globe. One can read about economic, urban, climate, international, energy, water governance, etc. Politicians across the ideological spectrum refer to it indiscriminately, almost as a ready-made solution to all governing challenges. Laymen and common citizens grasp to understand –and also to contest– its definition and also its practice and implementation. Expectations are high on governance bringing about positive socio-environmental change. Nevertheless, there seems to be some confusion regarding its meaning and characteristics. Very relevantly, there are also some important normative concerns derived of empirical findings that contest some of the optimistic theoretical suppositions on governance.⁸

Indeed, processes of State-transformation and the rise of the ‘governance notion’ can be found in the context of water sector –which is the sector I focus on in this PhD thesis. Water polities have appropriated the concept and attempted to establish new institutional forms and policy mechanisms to address complex, interdependent and crosscutting water resources management challenges through greater social participation/involvement and stakeholder cooperation. As this chapter will show, governance, as a concept and as a social phenomenon, is still very much in a process of definition and redefinition, subject to innovation as scholars reflect on it conceptually; politicians, civil servants and practitioners work in the design, establishment and institutional development of governance arrangements; and people –that is concrete water polities– experiment and are governed through them. It is important to highlight now that in the context of this PhD a governance arrangement is to be considered an institutional form established by a social actor –most of the times the State– in order to enable greater social

⁸ In this introduction I refrain to establish the bibliographical references, but later in the next sections of this chapter extensive references are clearly established.

participation/involvement and stakeholder cooperation in an attempt to harness wider societal resources –ideas, organisation, finance, technical and managerial capacities, etc.– to address complex, interdependent and cross-cutting governing challenges.

This chapter is about the process of State-transformation and the rise of the governance phenomenon as one central element of this process. Ultimately, it seeks to present some important and relevant aspects of this debate in order to develop a research problem or *explanandum* of this phenomenon, as well as to harness some analytical tools to ultimately purport an approach or pathway to study real-life process of State-transformation and the establishment of socio-political governance arrangements. Therefore, in the first section of this chapter, efforts are made to explain the rise and consolidation of the ‘governance notion’ in the political imaginary of contemporary polities and its ‘influence’ or ‘effect’ in the water policy sector. This section highlights amongst other things, that there are many connotations regarding the governance notion, and thus demarcating socio-political governance –one of such connotations– as an important research subject of this PhD. Furthermore, an attempt is made to elaborate on the socio-political governance’s definition and meaning; that as the reader will find is still rather slippery and contested. Certain misunderstandings and contestations still abound, perhaps showing that there are different ‘political projects’ and ‘political forces’ behind different understandings and practices of the governance phenomenon.

To support the clarification on the socio-political governance phenomenon another section is devoted to the description of the main drivers behind it. These drivers are very diverse in nature and thus mapping them out helps to understand some of the causes or origins behind the governance phenomenon. When studying particular case studies, these drivers provide clues about specific ‘political projects’, ‘strategies’ and social forces affecting the establishment and the institutional development process taken by the governance arrangements under study. As it will be later explained, it is possible to consider that the drivers behind specific governance arrangements, including which political force or social actor is behind them, somehow determine their characteristics, their institutional development process, and seemingly also their democratic performance (i.e. the drivers create some form of path-dependency in terms of their institutional development). Although it seems also, that once socio-political governance arrangements are established, they also gain a life or energy of their own, and that albeit conditioned by different parameters or

'structural constraints' they still can develop in relatively uncertain path, and through the exercise of 'countervailing power'.

Subsequently, there is also section that elaborates on how the governance notion has been applied or used in the context of the water policy sector. This 'disciplinary migration' from the realms of the political sciences to the water sector has not been very swift, and only until recently the full spectrum of the governance notion –as a conceptual construct and social phenomenon– has been fully entertained by scholars and practitioners in this field. Accordingly, it is also possible to find today in the water policy sector a debate on the many different connotations of the governance notion. This section again demarcates that the object of study is socio-political water governance, against the other common connotations, highlighting that socio-political governance arrangements are embedded in wider processes of State-transformation. In this chapter, I also present a definition of socio-political water governance that attempts to integrate a number of critical reflections made by different scholars –and presented in this chapter– and with whom I generally concur. This understanding regarding socio-political governance also supports some central elements of the main hypothesis of this PhD.

Currently, there are two main approaches to the study of the governance phenomenon, the society-centred and the State centric-relational approach, each of these approaches focuses on different aspects of the governance phenomenon.⁹ So another section of this chapter elaborates on some of the most relevant differences in their underpinnings and analytical orientations. As the reader will realise, this PhD research will follow the State centric-relational approach for several reasons that will become clear later through the document, but mainly because one of the main research objectives of this PhD is to study the process of State-transformation and role of the State in the institutional development of socio-political governance arrangements, represented in the case study by the efforts made by the Mexican State to establish MSPs for groundwater management and in a context of a profound Neoliberal State-transformation process.

As such, this chapter introduces three central 'characters' in this PHD research, the State, power, and MSPs. The State is at the centre of the governance phenomenon

⁹ In reality in the literature it is possible to identify three different approaches, the society-centred, the State-centric and the State-centric relational approach. Still the third is really only a corollary of the second, and thus for practical purposes, in the context of this PhD both approaches will be treated as one. Still I will also distinguish certain features of each.

and is a principle in the distribution of power in society, playing a fundamental role as a guarantor and defender of democracy and social equity –at least theoretically speaking. Still, the State is another complex social phenomenon and its role in socio-political governance arrangements –and the process of socio-ecological transformation for that matter– is subject to heated debates, and not without due reasons. The State has been a central actor in driving both very negative and very positive processes of socio-ecological transformation. Critical scholars studying the governance phenomenon warn us regarding the unclear and even negative role of the State in governance arrangements. Therefore, a brief and succinct section makes an attempt to present some ideas, animated by post-Marxist and the Strategic-relational interpretations on the nature and characteristics of the State. These interpretations stress that the State can be best understood as a social relation and not as a monolithic and autonomous block. According to these interpretations, Statehood formations (i.e. nation-building, developmental-interventionist, neo-liberal, etc.) deploy State-strategies in attempt to consolidate State-projects, an aspect that is explored in this PhD thesis. This specific conceptualisation on the State has implications for developing an understanding of the role of the State in governance arrangements, an aspect that will be developed also in this chapter, and then later in this document, when attempts are made to study the role of the Mexican State in the establishment and development of MSPs for groundwater management. An important element of the debate worth highlighting now is that the State-relational approach emphasizes that frequently the implementation of certain State-strategies and institutional innovations –like governance strategies and socio-political governance arrangements– take time to consolidate, and sometimes fail to do so or do so incompletely, as a result of contradictions, path-dependencies, and even social struggles, or ‘countervailing powers’, using A Fung’s (2003) terminology.¹⁰

Governance has been ascribed with very positive connotations, as a governing strategy or process that harbours and enables very constructive and productive socio-political relations such as greater social participation/involvement and stakeholder cooperation. Still, more critical scholars have more reserved and tempered opinions, bringing back into attention in the context of the governance debate issues of power and politics to centre stage. These concerns and reflections are certainly warranted, because empirical research points out to important problems experienced in socio-political governance arrangements, where asymmetries in

¹⁰ An explanation on the notion of ‘countervailing power’ will be explained later in this chapter.

power are seen to affect the normative outcomes of such arrangements –such as their democratic performance–, frequently in detriment of the less powerful and marginalised stakeholders. For this reason, a section of this chapter devotes some effort to unravel the second ‘character’, power, as it has been considered to manifest in the context of governance arrangements, and to later deploy this theoretical reflection to the case study analysis.

The third ‘character’ is the MSPs for water resources management. MSPs are an innovative form of socio-political governance arrangement established to solve complex, interdependent and crosscutting water challenges, such as integrated water resources management and sustainable groundwater management. MSPs present institutional designs with particular characteristics, and geared at enabling precisely the warranted democratic social participation/involvement and stakeholder cooperation required to address complex water resources challenges. In the end MSPs are innovative institutional forms, and thus in order to study them it is important to develop a theoretical understanding about institutions, their characteristics, and the process of institutional change and development. Therefore, a section is devoted to clarifying certain institutional design features of the MSPs that will support afterwards the study of the MSPs for groundwater management in the Mexican water polity. Consequently, this background theoretical knowledge regarding institutional analysis will help then to support the study of the MSPs for groundwater resources management in Mexico.

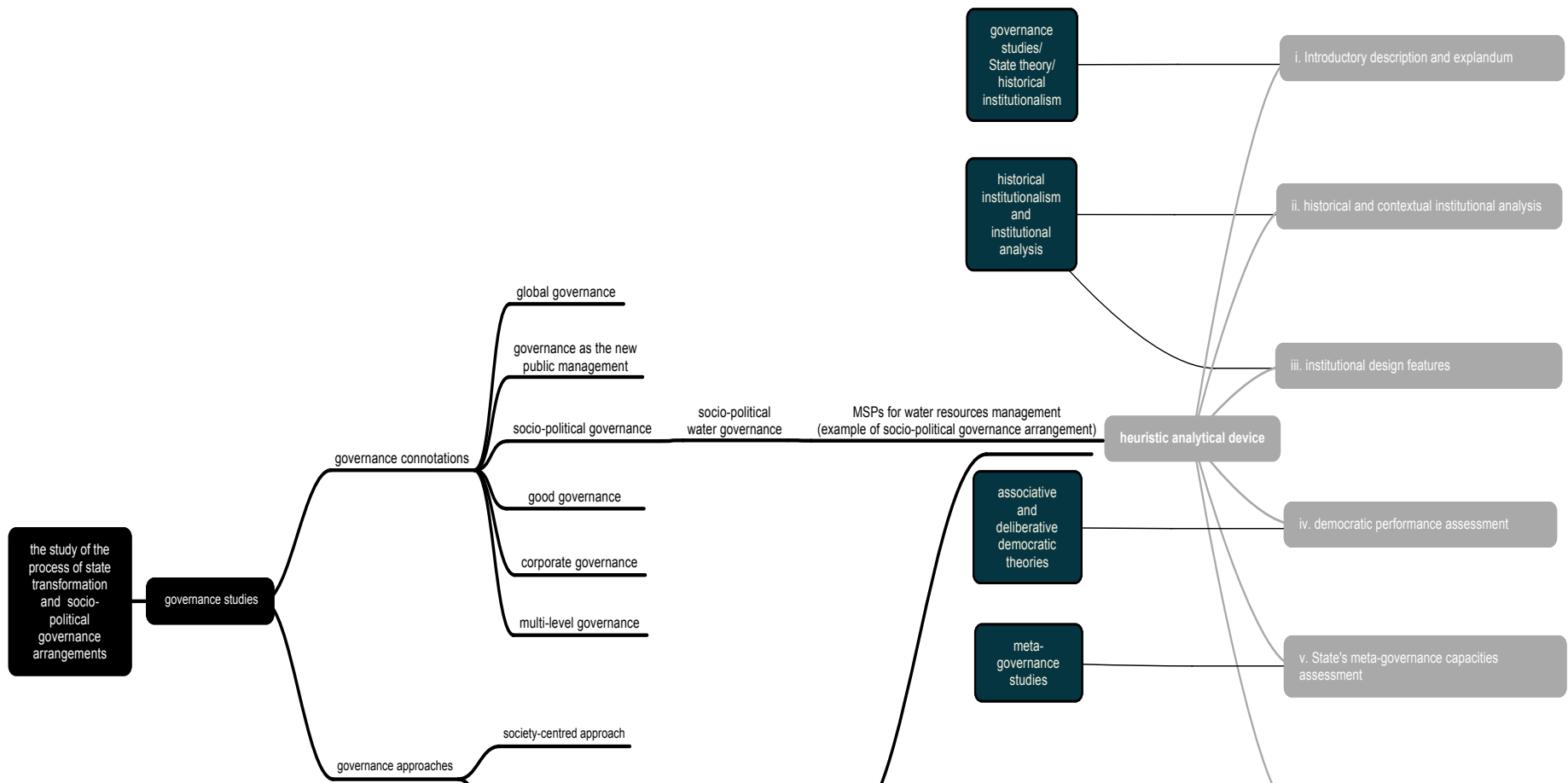
Central to this PhD is the study of the democratic performance of governance arrangements. I concur with the more critical scholars of socio-political governance that socio-political governance arrangements may very well harbour very positive socio-political processes, such as social participation/involvement and stakeholder cooperation; but there are also important risks that they may turn into highly autocratic, tokenistic and exclusionary institutional forms. Therefore, one section of this chapter focuses in describing how scholars are attempting to study their democratic performance. It is an innovative supposition of this PhD, that traditional theories of democracy, that focus on the role of electoral reforms and party politics, democratic transitions and consolidations, government accountability and transparency structures, etc. are ill-equipped to support the study of the democratic performance of socio-political governance arrangements, and thus, it turns to the associative and deliberative theories of democracy for inspiration. The reason behind this theoretical choice is that the functioning of socio-political governance

arrangements, as mentioned previously, rests in the associative and deliberative activity of and between stakeholders. Accordingly, both theories study the potential capacity of these activities to provide for such democratic performance (i.e. their capacity to produce democratic effects). Consequently, both theories will support the democratic performance assessment of socio-political governance arrangements, represented in this case by the MSPs for groundwater management. This debate will be presented in more detail in the next chapter, but it is worth mentioning it now, because the democratic performance assessment is an integral part of the heuristic-analytical device presented in chapter 3.

To support the study of the role of the State in the establishment and institutional development of socio-political governance arrangements scholars are currently also deploying the notion of meta-governance, and referring to the strategies and capacities that the State may use to govern over socio-political governance arrangements. There are different meta-governance strategies and capacities that, as I will attempt to prove, reflect wider strategic orientations on behalf of the State to influence the institutional development path of socio-political governance arrangements, and ultimately also influencing the consolidation of specific State-projects. Consequently, efforts will be made in another section of this chapter's to highlight the most important meta-governance strategies and capacities identified by scholars to later undertake a meta-governance capacities assessment of the Mexican State water institutions in terms of their capabilities to govern over the MSPs for groundwater resources management.

Overall, this chapter seeks to present the most relevant aspects of the debate surrounding the process of State-transformation and the governance phenomenon and to problematize some important ideas and concerns that deserve to be subject of further scholarly research (i.e. it seeks to develop a research problem or *explanandum*). It also brings together a number of conceptual and analytical tools to then support the design of a heuristic-analytical device to study specific processes of State-transformation and the establishment and institutional development of socio-political governance arrangements (i.e. to offer an approach or pathway to develop an *explanans*). The following diagram represents the theoretical-analytical route or theoretical analytical mental map for this PhD. In this mental map I attempt to highlight the central elements of this research, the main research subjects, and the main theoretical approaches that support the heuristic-analytical device.

Figure-1: Theoretical and Analytical Pathway (Mental Map, developed for this doctoral research)



1.2.The Rise and Consolidation of the ‘Governance Notion’ in the Political Imaginary

Since its inception in the political imaginary in the 1990s, the ‘governance notion’ – as a conceptual construct– has been rather slippery and contested. It has been attributed with many different connotations with diverse meanings such as for example: global governance, good governance, corporate governance, governance as the public management, multi-level governance, and socio-political governance (Kjaer, 2004; Bavir, 2012).¹¹ All these different connotations can be considered to be part of a greater ‘governance concourse’ that is still constantly changing and evolving, despite already existing for more than 20 years now. Overall, these connotations have been deployed to study diverse facets of an empirical phenomenon, the process of State-transformation, broadly characterised by changes in the rationale, structures and processes of governing across polities and policy sectors in an attempt made by the State to enable greater democratic social participation/involvement and stakeholder cooperation throughout the governing process, amongst other objectives.

In the context of the water policy sector it is possible to find also a prolific debate on the process of State-transformation and the rise of the ‘governance notion’. This debate started approximately during the last years of the 1990’s decade, and borrows elements from the descriptive and analytical debate on the process of State-transformation and ‘governance’ taking place within the realms of the political sciences. This is to say, that it also refers precisely to broad and encompassing changes in the rationale, structures and processes of governing across water polities in an attempt to address sustainable water resources management, water and sanitation service provision, and water security challenges (GWP, 2003; Solanes and Jouravlev, 2006, UN-Water, 2013). It is important to emphasize that there are some important misunderstandings in the use of the governance notion, especially in the initial work produced on the subject matter, a point I will address in more detail later in this chapter.

I would like to know proceed to narrow down the focus of this PhD research –in relation to the different governance connotations– by stating that it will concentrate

¹¹ If the reader is interested in a more comprehensive description of all the different connotations and meanings of the ‘governance phenomenon’ please see: Kjaer, A. M. (2004) *Governance*, Cambridge, UK, Polity Press. Also for a more general overview please see: Bevir, M. (2012), *The SAGE Handbook on Governance*, London, UK, Sage Editorial.

mainly on socio-political governance –or what some authors refer to as ‘governance’ or also interactive governance (Peters et al., 2012). Reason being, that the socio-political governance notion is best equipped to systematically study the process of State-transformation and the establishment of new socio-political governance arrangements to enable greater social participation/involvement and stakeholder cooperation. Thus, there is a conscious and relative disregard of the other governance connotations that deal with other important themes that are also encompassed under the wider debate on the process of State-transformation and the water governance debate.

Whilst there are many different interpretations and also misunderstandings on the meaning of the ‘governance notion’, there seems to be, at least amongst political scientists –specially in the European literature on the subject matter (e.g. Kickert, Klijn and Koppenjan, 1997; Pierre and Peters, 2000; Peters, 2000, Torfing and Triantafillou, 2011)–, some form of shared understanding on the nature and characteristics of this phenomenon. This shared understanding is that the ‘governance notion’ seeks to describe and explain important changes in the rationale, structures and process of governing in response to important ideological and material drivers identified in contemporary polities since almost two decades ago, and to a lesser or greater degree in different countries of the world (Pierre and Peters, 2000; Backstrand et al., 2010; Peters et al., 2012). Supporting this meaning of socio-political governance is R.A.W. Rhodes, one of the first political scientists that drew attention to the ‘governance phenomenon’ and already writing systematically about it since the mid-1990s:

“Unfortunately, even the most cursory inspection reveals that ‘governance’ has several distinct meanings. A baseline definition is essential, therefore, and where else to look other than a textbook. Sammy Finer defines government as: the activity or process of governing or governance; a condition of ordered rule; those people charged with the duty of governing or governors; and the manner, method or system by which a particular society is governed. Current use does not treat governance as a synonym for government. Rather governance signifies a change in the meaning of government, referring to a new process of governing, or a changed condition of ordered rule, or the new method by which society is to be governed.” (Rhodes, 1996: 562-653)

Several scholars after R.W. Rhodes continued to characterise the ‘governance phenomenon’ focusing on clearly differentiating ‘government’ –as the traditional activity, and entity/structure for governing or governor– from ‘governance’ –as the new strategy, structures and processes for governing oriented at harnessing wider

societal resources through new types of socio-political governance arrangements to address contemporary governing challenges (Kooiman, 2003; Hajer and Wagenaar, 2003). It is important to mention that the ‘governance notion’ has also received other treatments that seem to equate ‘governance’ to ‘governing’ (i.e. as the broad activity of governing); ‘governance’ to ‘good governance’ (i.e. as a range of normative and prescriptive principles that convey governability to polities), and ‘governance’ to ‘governability’ (i.e. as the necessary conditions that convey polities the necessary socio-political and economic stability for development) (Kooiman, 2003, GWP, 2003, Allen, Davila and Hofmann, 2006). These misunderstandings and ambiguities somewhat deplete the ‘governance notion’ of its analytical edge and of its power to systematically analyse and support innovative and progressive socio-political governance arrangements. Thus, also ultimately hindering its capacity –as a conceptual construct– to imagine and enable socio-political governance arrangements oriented at supporting positive socio-environmental change (Fung and Wright, 2003; Wright, 2010).¹²

In the context of the water policy sector, the socio-political governance notion is frequently misunderstood and some inconsistencies, like the ones mentioned above, abound in the discourse. It is often possible, for example, to find that ‘governance’ is equated to the notion of ‘governability’ or ‘good governance’, and as it will later be exemplified (GWP, 2003; Solanes and Jouravlev, 2006). Perhaps then a useful way to try to understand with more precision the meaning and implications of socio-political governance is by turning to the drivers that have impelled and prompted its development as a conceptual construct and as an empirical phenomenon across polities and policy sectors.

1.2.1. Main Drivers of the Governance Phenomenon

The emergence of the ‘governance notion’ does not occur in a historical and institutional vacuum. ‘Governance’ has been considered to be a form of State’s response or strategy in attempt to face a number of governing challenges that, on the one hand, started to impose important limitations to the State’s capacity to provide for the governability of polities since the beginning of the 1990s, and on the other,

¹² Distinguishing these concepts is important, because it is possible to consider that in order for socio-political governance arrangements to be able to provide for the governability of polities, there is a need to understand what elements provide for their good governance in order to build the necessary conditions to support their pursuit.

that have impelled for changes in the socio-political relations between the State and civil society throughout the governing process (Pierre, 2000; Kooiman, 2003). In the latter sense, governance has also been considered a response to a number of social pressures ultimately striving to change the centralised, hierarchical, top-down, and even autocratic governing processes across different policy sectors in order to reorient them towards more progressive, participatory and empowering governing processes (Fung and Wright, 2003; Swyngedouw, 2003, Castro, 2007; Peters et al., 2012). Some of the main drivers and forces highlighted in the literature are briefly described in the following paragraphs.¹³

- *The Fiscal Crises, the Neo-liberal Ideology, and the State's Retreat*

The State's fiscal downturn resulting from several global economic and financial crisis, paired with the rise and expansion of Neoliberalism, pushed for the State's retreat, triggering increasing State budgetary constraints that had direct consequences on the reduction of public spending, public programmes' curtailment and strong privatisation moves (Gamble, 2000; Rosneau, 2000; Harvey, 2005). This strenuous fiscal situation and the Neo-liberal ideas regarding the State's function and role prompted the State to find new and creative ways to engage the private sector and other actors in civil society in the pursuit of public policy goals and the provision of public services. A number of new forms of institutional innovations appeared, such as public private partnerships, cooperative regimes, entrepreneurial zones, quangos, amongst others socio-political governance arrangements (Jessop, 2002; Hay, Lister and Marsh, 2006; Bell and Hindmoor, 2009).

Certainly the water policy sector was also hit by these economic and financial crises –as well as being influenced by Neoliberalism– with a direct impact in the orientation and role of the State's water sector institutions in the pursuit of sustainable water resources management, water and sanitation provision and water security (Shiva, 2002; Biswas, Unver and Tortajada, 2004; Castro, 2005). In the water policy sector

¹³ For a more elaborate discussion on the drivers behind the governance process please see: Pierre, J (ed.) (2000), *Understanding Governance: Authority, Steering and Democracy*, Oxford, UK, Oxford University Press; and Pierre, J. and B. Guy Peters (2000), *Governance, Politics and the State*, London, UK. MacMillan Press. A critical and insightful view of socio-political governance that attempts to make an explicit attempt to link socio-political governance with democratisation and empowerment processes is the work by E. O. Wright. Please see: Wright, E.O. (2003), *Deepening Democracy, Institutional Innovations for a more Empowered and Participatory Governance*, Wisconsin, USA, University of Wisconsin Editorial.

the State's budgetary constraints and the Neoliberal ideology prompted important government efforts, for example, to decentralise water and sanitation services at the state and municipal levels and to provide water and sanitation services through several forms of private sector involvement –with very diverse and contested impacts (Barlow and Clarke, 2002; Castro and Heller, 2009; Mandri-Perrot, 2009; PPIAF, 2009).¹⁴ Efforts were also made to achieve greater private sector involvement for agricultural water management –for example through the devolution of irrigation districts to local water user associations–; and water conveyance infrastructure construction and financing through public-private partnerships (Perret, Farolfi and Hassan, 2006; IWMI-FAO, 2007; Crase and Gandhi, 2009; Gimsey and Lewis, 2007).¹⁵ Other important measures were the creation of property rights systems and subsequently the enablement of water markets.

- *The State's Legitimacy Crisis*

The important State's limitations to deal with emerging policy problems through traditional institutional structures and policy instruments, and the rising citizen demands from an increasingly differentiated society, produced also what was perceived as a State's legitimacy crises (Rhodes, 2000; Stoker, 2000; Jessop, 2002).

¹⁴ For an interesting scholarly work on the restructuring of water and sanitation services around the world as a result of the neoliberal ideology –and its contestations– is: Castro, E and L Heller (2009), *Water and Sanitation Services: Policy and Management*, London, UK, Earthscan Editorial. Also, a very interesting and particular case of the decentralisation of water and sanitation process paired with the evolution of local democracy is the case of Bolivia's water sector, and of course as a result of the great social discontent produced by failed private sector involvement during Hugo Brazner's second mandate (1997-2001), and that opened up for a global Suez to provide services in the city of Cochabamba. Please see Faguet, J P (2012), *Decentralisation and Popular Democracy: Governance from Below*, Michigan, USA, University of Michigan Press. On the issue of private sector involvement in water and sanitation an interesting interdisciplinary project with broad material worth reviewing is: "Barriers and Conditions for the Involvement of Private Capital and Enterprise in Water Supply and Sanitation in Latin America and Africa: Seeking Economic, Social and Environmental Sustainability", and coordinated by Dr Esteban Castro. Please see: www.prinwass.org. Also a comprehensive approach to the phenomenon of public-private partnerships is presented in Johnstone, N and L. Wood (eds) (2006), *Private Firms and Public Water: Realising Social and Environmental Objectives in Developing Countries*, Cheltenham, UK, Edward Elgar.

¹⁵ Two interesting cases of agricultural water management decentralisation processes to irrigation districts are the case of India and Mexico. Please see: Crase, L and Gandhi, V (eds.) (2009), *Reforming Institutions in Water Resource Management*, London, UK, Earthscan Editorial. See also Torregrosa M.L. (2001), "Modernización del campo en México y crisis de las identidades tradicionales: el caso de los distritos de riego en México", in *Pérfiles Latinoamericanos de Ciencias Sociales*, num 14, p.p. 149-174. Another comprehensive reading on the case of water governance in agricultural water management across Asia and Africa is: Perret, S; Farolfi, S and R. Hassid (2006), *Water Governance for Sustainable Development*, London, UK, Earthscan Editorial.

This legitimacy crisis, together with the evolution of more pluralist, differentiated, informed and political active societies –demanding for more responsive, transparent, accountable and participatory government institutions and policy process– impelled the State to devise new socio-political governance arrangements to meet these contemporary policy problems and to address rising societal demands (Hirst, 2000; Dryzek, 2000; Hajer and Wagenaar, 2003).

The centrality of water in socio-economic development and in sustaining social livelihoods certainly exercises a continuous and increasing pressure over the State water institutions to address all forms of sustainable water resources management, water supply and sanitation provision challenges, and water security concerns. Due to the complexities inherent to these challenges and concerns, a State's legitimacy crisis across different regions of the globe has gradually been evolving and now is widely recognised. In the case of the water policy sector this legitimacy crisis is represented by the term of 'the water governance crisis' (Hunt, 2004; Jimenez and Marin, 2004; UNESCO, 2006; Whitley, Ingram and Warren, 2008). Accordingly, the 'water governance crisis' –that to my mind should be termed differently to avoid misunderstandings, perhaps the water governing crises– has prompted international institutions, States and civil society to promote the organisation of socio-political governance arrangements, such as MSPs for IWRM. Indeed social needs and demands for sustainable and equitable water resources management, water and sanitation services for all, and water security have been left widely unmet across the globe (UNESCO, 2006; UNHABITAT, 2003; UNDESA, 2012, UN-Water, 2013). These drawbacks and challenges have prompted, on the one hand, the State to develop more decentralised, participatory and democratic forms of water governance arrangements –albeit sometimes only to share the governing burden in an irresponsible and inefficient way–, and on the other hand, for civil society to self-organise to address these challenges and press States around the world for their right to water. On this, many examples abound of community-based partnerships and co-production (Swyngedouw, 2004; Allen, Davila and Hoffman, 2006).¹⁶

¹⁶ The literature on this subject is very extensive, but a comprehensive and interesting review of this topic is represented by: Berry, K. and E. Mollard (eds) (2010) *Social Participation in Water Governance and Management*, London, U.K., Earthscan Editorial. Also, the case of peri-urban and rural areas is paradigmatic of the water governance crisis, because peri-urban areas offer very particular water and sanitation services challenges that deter water utilities to attempt to provide services in these areas. On this topic please see: Kurian, M. and P. McCarney (eds.) (2007), *Peri-Urban Water and Sanitation Services*, London, U.K. Springer; and AVINA (2011); *Modelos de Gobernabilidad Democrática para el Acceso al Agua en América Latina*, Cordoba, Argentina, Fundación Avina. Another interesting part of the debate

- *The Rise of Complex and ‘Wicked’ Policy Problems*

The rise of complex and ‘wicked’ policy problems demands greater social participation and stakeholder cooperation. These new range of policy problems have triggered the rise in the institutionalisation of socio-political governance arrangements (Kanie and Haas, 2004; Adger and Jordan, 2009; Delmas and Young, 2009). The emergence of for example global and transboundary policy problems, such as climate change, drug and human trafficking, and terrorism demands greater collaboration amongst States and within States, impelling for different forms of multi-level governance (Rosneau, 2000; Bache and Flanders, 2003).

Water politics around the world definitely confront complex sustainable water resources management, water and sanitation and water security challenges. It is also widely accepted that water is itself a crosscutting, transboundary and global policy problem (Hunt, 2004; UNESCO, 2006, GWP, 2012, 2013). This appreciation is very much represented by the concept of ‘integrated water resources management’. As such integrated water resources management is a socio-political and technical process that seeks to promote amongst stakeholders the coordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems (GWP, 2012). The IWRM paradigm attempts precisely to address the complexity, interdependence and crosscutting nature of water resources management. Accordingly, the level of complexity of the IWRM’s policy objectives demands for institutional structures and policy processes that truly enable social participation/involvement and stakeholder cooperation at the river basin, groundwater and even transboundary levels (Falkenmark and Rockstrom, 2004; World Bank, 2007, Garcia, 2008; GWP, 2013). On this it is relevant to mention that the literature studying IWRM frequently focuses also on the role of MSPs as the ‘ideal type institutions’ to pursue it.¹⁷

that for reasons of space cannot be addressed is the issue of adequate technological choice and appropriate and decentralised technologies in the water and sanitation sector. On this topic interesting networks and organisations offer thorough material on the subject matter in their webpages. Please see: www.susana.org, www.borda-net.org, and www.ecosanres.org.

¹⁷ Again the literature is quite extensive but interesting work on the subject matter, especially on Latin America is the work produced by the ECLAC. Please see: Dourojanni, A, Jouravlev, A and G Chavez (2002), *Gestión del Agua a Nivel de Cuencas: Teoría y Práctica*, Santiago de Chile, Chile, ECLAC. The case of the Confederaciones Hidrográficas in Spain is also extremely interesting, because it represents a gradual process of institutional development. On these please see: Vera, J A (2008), *La gestión institucional del agua en España 1978-2008*, Valladolid, Spain, Editorial Liteam. The river basin councils in Mexico are also an

- *The Pursuit of Democratisation and Empowerment*

Finally, the erosion of the affirmative-developmental-interventionist State and the loss of democratic vitality in society, felt in polities across the globe, has prompted, on the one hand, the Right to support the implementation of Neoliberalism, and on the other, the Left –and other progressive forces– to reconsider the role of the State in governing. Both political forces purport ‘socio-political governance’ as a new strategy to support ‘greater’ decentralisation, democratisation, and empowerment throughout the governing process –albeit probably having different understandings of each of these processes. Socio-political governance is then considered an opportunity to foster the warranted decentralisation, democratisation, and empowerment processes that will also, in turn, advance positive socio-environmental change. Under this last perspective and also through under the more Leftist views, socio-political governance can be considered in itself, not only a mechanisms or process for governing, but also a driver –per se– of greater decentralisation, democratization, and empowerment (Barry, 2000; Fung and Wright, 2003; Wright, 2010). This aspect of the debate is important for this PhD research.

Unfortunately, the water policy sector is plagued with injustice and inequality (Chatterji, Arlosoroff, and Guha, 2002; Whitley, Ingram and Warren, 2008, CAF, 2013). It is frequently the case that powerful stakeholders –usually supported by the State– benefit disproportionately from their access to water resources. Frequently, for example, poor and marginal communities have deficient or no access to water and sanitation services, and as a result of protracted and structural social inequalities (Allen, Davila and Hoffman, 2006; Castro, 2009, GWP, 2011). This has led to the creation of a many diverse and innovative socio-political governance arrangements – frequently supported in financial and technical terms by NGOs, CBOs, philanthropies, universities and research centres– that aim to help marginalised and poor local water polities to gain access to water resources for their sustainable livelihoods.¹⁸ What is interesting about these innovative forms of socio-political

interesting experience of MSPs at the river basin. Unfortunately, despite gradual process of limited institutional development, the general criticism is that they do not truly allow for a representative and legitimate social participation. On this please see: Chavez, G (ed) (2001), *Memoria de la Primera Reunión de Consejos de Cuenca en México*, Mexico City, Mexico, Conagua. Finally an interesting global comparative study on decentralised water resources management is: Kemper, K; Bomquist, W and A Dinar (eds) (2010), *Integrated River Basin Management through Decentralisation*, Berlin, Germany, Springer.

¹⁸ There are several organisations that support this type of processes. Interesting work is carried out for example by: BORDA, Building Partnerships for Water and Sanitation, Charity

governance arrangements is that they have at their core, strategies to truly support local communities' decentralisation, democratisation and empowerment.¹⁹ On this Allen, Davila and Hoffman (2006) develop some insights:

“The debate on governance has expanded significantly in the last 15 years. This has been associated with an increased focus on the responsibility of the international community to both understand and to improve the general conditions for policy making through adopting values of participatory democracy, social justice and environmental sustainability. This preoccupation has resulted in an often prescriptive debate about the most appropriate governing processes to promote cooperation and co-responsibility among different social actors. In some cases, the outcomes of this debate have even become organised as conditionality prescribed by international institutions, as in the debate surrounding ‘good governance’. (Allen, Davila and Hoffman, 2016: 45)

The above exposition on the drivers of socio-political governance is brief, but allows us to grasp the idea that there are many different factors behind the rise and consolidation of socio-political governance. Some of these factors are ideological, some of them have to do with technical and efficiency concerns, and some have a root in ‘material’ conditions faced by local polities on a daily bases and that have prompted them to self-organise to address them. Overall these challenging situations, in turn, produce the many diverse ‘faces’ or ‘sides’ of the socio-political governance phenomenon. It is time now to elaborate in more detail on the socio-political governance phenomenon’s characteristics.

1.3. The State-transformation Processes and Socio-political Governance: Main Characteristics and Application in the Water Sector

Socio-political governance, as an evolving and increasingly prevalent governing strategy and process aimed at enabling greater social participation/involvement and stakeholder cooperation throughout the governing process, has had important implications in the way governing processes are being conceptualised, designed and implemented (Guy Peters et al., 2012). M. Hajer and H. Wagenaar (2003) reflect on

Water, Development Planning Unit, Fundación Avina International Institute for Environment and Development, IIRC, UCN, SNV, SEI, SIWI, UNHABITAT, Water Aid, Water.org, WSSCC, WSUP, and the WSP, amongst many others.

¹⁹ The issue of empowerment and democratisation in the water sector was strongly highlighted during the 4th World Forum by the ‘Empowerment and Democratisation High Level Panel’, chaired by Dr. Julia Carabias, former Secretary State for the Environment in Mexico and moderated by Dr. Adriana Allen of the DPU in London. The panel presented interesting examples of empowerment and democratisation processes in the water sector, around the world, and highlighted the challenges and opportunities faced by progressive socio-political governance arrangements.

some of these important implications characterising the socio-political governance phenomenon:

“The new vocabulary of governance seems to capture important changes in both the nature and the topography of politics. A new range of political practices has emerged between institutional layers of the state and between state institutions and societal organisations. The new language is rooted in the appreciation of the importance of these new political practices. (...) The prominence of the new vocabulary of governance also illustrates a widespread dissatisfaction with the limited reach of ‘set solutions’ to thorny political issues imposed through top-down government interventions. Many pressing problems no longer comport with the established systems of politics, administration and society. Practical needs drive the development of cooperative efforts among new constellations of actors.” (Hajer and Wagenaar, 2003; 1-2)

Hajer’s and Wagenaar’s (2003) intervention highlights several aspects that are central to the socio-political governance phenomenon. According to them, across policy sectors there is new way to conduct politics and public policy through which different social actors in the political system are enabled to interact in order to address the State’s limitations, complex policy challenges, and collective action problems. There is also reference to the appearance of a new type of socio-political actor or entity, the policy network, amongst other new institutional entities.²⁰ There seems also to be an implied optimism regarding these ‘new’ types of positive socio-political relations and new types of “constellations of actors”, something that is recurrent in the context of the contemporary discourse on socio-political governance. This optimism is warranted, but as this PhD will describe later, deserves careful scrutiny.

The notion of ‘socio-political governance’ brings to the fore criticism to the sole and privileged use of market enabling strategies and mechanisms aimed a harnessing market forces and regulating societal behaviour to avoid socio-economic and

²⁰ The concepts of ‘policy networks’ and ‘governance’ accompany each other as conceptual constructs in a large segment of the specialised literature on the governance notion. As such the concept of policy network is used to depict patterns of relations between interdependent social actors that participate in a policy process, where no individual actor considers having the necessary capabilities to pursue his or her own interest, nor the public interest. The concept of policy network appeared in the political imaginary approximately at the same time as the governance notion did. It is worth highlighting that the more recent literature on governance centres a lot of its attention in the study of governing strategies, processes and mechanisms to govern policy networks. If the reader is interested in this debate please see: Kickert, J, M, Klijn J K and J Koppenjan (1997) *Managing Complex Networks*, London, UK Sage Editorial; John, P (1998) *Analysing Public Policy*, London, Pinter; Kooiman, J (2003), *Governing as Governance*, London, UK. Sage Editorial; and Torfing, J. and P. Triantafillou (2011), *Interactive Policy Making, Meta-governance and Democracy*, Colchester, UK, ECPR Editorial.

environmental externalities, and thus swerving away from the exclusive and orthodox use of market like mechanisms. According to this view, the governing limitations and drawbacks of these traditional and orthodox governing modes have prompted a process of State-transformation and response oriented at attempting to harness an extensive array of societal resources by favouring the use of new governance arrangements, like cooperative regimes, governing commissions, PPPs, ad-hoc development corporations, co-management and self-regulation institutions, policy networks and multi-stakeholder platforms, etc. (Hajer and Wagenaar, 2003; Torfing and Triantafillou, et al., 2011; Peters et al., 2012). E. Swyngedouw (2005) comments on some of these aspects of socio-political governance (or “governing beyond-the-state”):

“Governance as an arrangement of governing beyond-the-state (but often with the explicit inclusion of parts of the state apparatus) is defined as the socially innovative institutional or quasi-institutional arrangements of governing that are organised as horizontal associational networks of private (market), civil society (usually NGO) and state actors. These forms of apparently horizontally organised and polycentric ensembles in which power is dispersed are increasingly prevalent in rule making, rule setting and rule implementation at a variety of geographical scales. (...) They exhibit an institutional configuration based on the inclusion of private market actors, civil society groups and parts of the traditional ‘state apparatus’ (Swyngedouw, 2005: 1992).

E. Swyngedouw touches on two interesting aspects of the governance phenomenon. First, he also highlights the idea that these new forms of socio-political governance have actually created new institutional or organisational ensembles, previously not seen or recognised in polities, such as polycentric ensembles (e.g. policy networks, public private partnerships, cooperative regimes, and multi-stakeholder platforms). Secondly, he captures an important political implication, the idea that power has been dispersed across the polity and between the social actors participating in these polycentric ensembles. Indeed, how and even whether this power has been dispersed across the polity and to what purpose and extent is something that has become a central aspect of the more critical scholarly research on the emergence and consolidation of socio-political governance arrangements. Later in this chapter efforts are made to address the issue of power in the context of socio-political governance arrangements, only to find that literature considers that power manifests in many different dimensions in the context of such arrangements.

In the water policy sector there is widespread recognition that sustainable water resources management, water supply and sanitation, and water security challenges cannot be addressed by the State in isolation, and that greater social

participation/involvement and stakeholder cooperation is required (Allen, Davila, Hoffman, 2006; Grigg, 2011; GWP, 2012; Lele, Klousia-Marquis and Goswami, 2013). Perhaps one of the first systematic efforts in addressing the meaning and conceptual contribution of the socio-political governance notion in the water policy sector is the one offered, some time ago, by the GWP (2003).²¹ As the next quotation shows, the treatment offered by the GWP, at that time, still shows certain level of ambiguity and perhaps even misunderstanding on the meaning of socio-political governance. This situation was the norm in the water sector for the initial works on the subject matter, when the socio-political governance notion first expanded or migrated to the policy sector. The next quotation by the GWP is perhaps self-explanatory of this situation:

“Governance is the exercise of economic, political and administrative authority to manage a country’s affairs at all levels. It comprises the mechanisms, processes, and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences. Water governance refers to the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society. Governance is already practiced in all countries and the aim is to make it more effective. To achieve more effective water governance it is necessary to create an enabling environment, which facilitates efficient private and public sector initiatives and stakeholder involvement in articulating needs. Governance covers the manner in which allocative and regulatory politics are exercised in the management of resources and broadly embraces the formal and informal institutions by which authority is exercised. The new term for discussing this combination of formal and informal institutions is called distributive governance (Kooiman, 1993), which is discussed later.” (GWP, 2003: p7)

The above definition of water governance on behalf of the GWP is to a certain extent confusing. Initially in this definition, ‘governance’ seems to be very much equated to the overall notion of ‘government’ as the overall activity and structures of governing, something that as already mentioned is a common problem when attempts were made by specialists from other policy sectors to address the governance debate. There is also a vague or ambiguous mention to the idea that effective water governance should facilitate greater public and private interaction, as well as stakeholder engagement, but it is as far as it goes. Finally, at the end of the description there is some mention that governance also implies the use of formal and informal institutions, through a new form of governing strategy or practice, in this

²¹ This case is relevant, because the GWP is an influential network in the water sector and its technical papers have widespread influence in the sector.

case termed 'distributive governance' (i.e. governance in this case is qualified by the use of an adjective to make reference to a new governing method or strategy), but no further elaboration on this aspect is presented.

As time elapsed, the argumentations developed on 'water governance' –including those of the GWP's– became more refined and more illustrative; better integrating the different elements considered by the socio-political governance debate and taking place in parallel in the realms of the political sciences (GWP, 2008, 2011).²² In a more recent work on water governance, Edelenbos, Bressers and Scholten (2013) develop a clearer understanding of the socio-political governance notion, one closer to the meaning used in the political sciences debate, and one better equipped to support descriptive and analytical work:

“Due to the complex nature of water systems, a water governance approach is needed in which different values, interests and uses of water that are interconnected so that water policy measures are developed and implemented with the support of different stakeholder groups. (...) This means that the solution can only be found beyond the boundaries of one layer and segment of government and even often beyond the boundaries of government as a whole. It requires delicate ways of governing multi-actor processes, which we call water governance in this book. As in the case with governance in general (Kickert, et al. 1997) and also in the case of water governance, there has been a general shift from an emphasis on State provision to private provision based on market principles, and more recently, a multi-stakeholder approach in water governance.” (Edelnbos, Bressers and Scholten, 2013:5)

According to Edelnbos, Bressers and Scholten (2013), enabling and governing multi-stakeholder processes becomes then a central concern of water governance. I agree with this perspective and share with other scholars the interest in studying MSPs in the water sector (Warner, 2007). Later this chapter will address in a more detail a description of MSPs for water resources management to give a more thorough idea of their characteristics. I will now refer to two of the main approaches to the study of the 'governance phenomenon', the society-centred and the State centric-relational approaches, something that will help locate this PhD in the context of

²² Other relevant and comprehensive interventions on water governance that are worth reviewing for more information on the topic are: Solanes, M and A. Jouralev (2008) *Water Governance and Sustainability*, Santiago de Chile, ECLAC; L. Miranda (ed.) (2011), *Water Governance Key Approaches: A Literature Review*, Amsterdam, University of Amsterdam; and UNDP (2013) *Assessing Water Governance*, New York, U.S.A., UNDP. Perhaps it is also relevant to mention that the water governance debate definitely evolved as social scientists started to work on it, supporting the initial efforts of water resources managers from the 'hard sciences', such as civil and water engineers.

scholarly research efforts on the subject matter and also help to demarcate the research focus.

1.4. The Different Approaches to the Study of the Governance Phenomenon

After several years of evolution of the 'governance concourse', it is possible to identify two distinct analytical approaches to the study of the governance phenomenon: the society-centred and the State centric-relational approaches. Each of these approaches focuses in studying different aspects of the governance phenomenon, and thus has developed distinct descriptive and analytical tools to do so. The first one focuses almost entirely in the study of policy networks, their emergence, functioning and the State's responses to attempt to govern over them in the pursuit of the public interest. The second one focuses more on the process of State adaptation, seeking to reassert the position and role of the State in the context of socio-political governance arrangements.

1.4.1. The Society-centred Governance Approach

The society-centred governance approach supports the notion that polities across policy sectors worldwide are now populated by a number of diverse social actors with diverse interests. These social actors have different capabilities to influence the governing process and are dispersed across what is perceived as an extremely dynamic, pluralist, horizontal and pluri-centric polity. These social actors are also frequently grouped in the form of policy networks around the pursuit of their individual and collective interests throughout the policy process (Klijn and Koppenjan, 2004; Torfing et al., 2011; Peters et al., 2012). Policy networks are conceived as open and changing socio-political entities, readjusting constantly in the process of socio-political interaction. Accordingly, the political and policy process in the context of policy networks is described as fluid, dynamic and interactive.

In policy networks settings the State is perceived as no longer holding the predominant role throughout the governing process, because it does not have the necessary power and autonomy to pursue public policy goals. This interdependency has prompted the State to adapt by developing new governing strategies to steer over these policy networks in an attempt to organise collective action towards the pursuit of public policy goals and also to safeguard the public interest. These new capabilities are referred to in the literature as "network management strategies for

the public sector” (Kickert, Klijn and Koppenjan, 1997) and more recently as meta-governance network management capacities (Torfing and Triantafillou, 2011; Peters, 2012).

In scholarly terms the society centred approach to the study of socio-political governance offers great analytical prospect to the study of the civil society’s transformation and participation the governing process. It is also useful to study the changing relationships between the State and different types of social actors established with the emergence and evolution of policy networks, and to the way power and authority is exercised and distributed across participant actors. More recently, several scholars have also focused their attention in the challenge that policy networks face in terms of democratic practice, developing interesting means to analyse for example what democratic decision making, political representation, accountability, transparency, and inclusive participation means in the context of policy networks (Lewis and Triantafillou, 2011, Meuleman, 2008; Koppenjan, Kars, and van der Voot, 2011).

1.4.2. The State-centric and State-centric Relational Governance Approach

The State-centric approach focuses on the study of an observable phenomenon in polities around the world, the manner that the State has changed and has transformed in response to a number of governing drawbacks and challenges, experienced mostly at the end of the 1990s (Pierre and Peters, 2000; Peters, 2000). Accordingly, ‘governance’ has been the State response in order to reassert and maintain its steering role and coordination capacities, and by developing new governing strategies, structures and processes aimed at sharing responsibilities, recognising interdependencies between social actors and harnessing societal resources through greater social participation/involvement and stakeholder cooperation in order to achieve greater collective action in the pursuit of public policy goals.

The State-centric approach to the study of the governance phenomenon retains much of the ‘old institutionalist’ political science’s emphasis on the study of government institutions, and how they have sought to establish new governance arrangements, as well as on how these arrangements evolve through time (i.e. focusing on the traditional ‘institutionalist’ research interests, such as institutional design features, institutional change and development processes, and path-

dependency phenomena). It is relevant to comment that this PhD research shares the same research interests of the State-centric approach, because part of its main research focus is on the changing relationship between the Mexican State and civil society throughout the water resources management processes, and more particularly the role of the State in the establishment and institutional development of the MSPs for ground water management. The State-centric governance approach neglects the proposition made by the society-centred approach that an increasing number of policy decisions are taken by self-organising policy networks, as evidence has proven that State's authority remains central to most governance strategies and contexts. Smith (2006) supports this criticism of the society-centred approach:

“The problem with society-centred governance accounts of state reform and development is that they fall back on the simplistic assumptions of pluralism. They ignore the asymmetries of power that potentially exist even in network relations. Perhaps the main problem is the way in which governance assumes that the central state has lost power when there is a raft of empirical evidence to demonstrate the high level of resources and authority that remain within the central state.” (Smith, 2006:32)

More recently some scholars have developed a corollary of the State-centric approach, the State centric-relational approach, and that offers some slight complementarities. One of the central tenets of the State centric-relational governance approach is that the governability of a polity should be considered an outcome of a more systemic type of capacity pertaining to the overall political system –and not only the State–; and made up of all manners of societal interactions between the State and social actors in the pursuit of private and public interests (Bell and Hindmoor, 2009). In this view the State still plays a central role in governing, but one of its central task is to enable the necessary conditions to support all social actors to progressively and positively contribute to the governability of the polity. Bell and Hindmoor (2009) comment on this:

“Our approach is state-centred because we argue that governments rely upon hierarchical authority to implement their policies, and because even when governments choose to govern in alternative ways, the state remains the pivotal player in establishing and operating governance strategies and partnerships. We, thus, see governance and changes in governance arrangements as substantially driven by changes in state preferences and strategy. Our approach to governance is also relational because we emphasise the extent to which governments in establishing and operating governance strategies, develop strategic relationships or partnerships with a range of non-state actors. (...) Our state-centric relational approach emphasises the importance of the state and also the importance of state-society relations in governing. Our state-centric

relational approach thus absorbs the relational aspects of the society-centred approach, but from a state-centric perspective.” (Bell and Hindmoor, 2009:3)

It seems important to comment that each of the governance approaches shed some light on different aspects of the ‘governance phenomenon’. Scholars pertaining to each of the approaches have developed –and are currently developing– analytical frameworks to pursue timely and important research questions on the ‘governance phenomenon’. Moreover, it is also important to mention that each approach offers particular advantages to pursue the analysis of specific research objectives in different policy sectors and contexts. Ultimately, the choice of between approaches involves the careful understanding of the research focus at hand, and the potential that each approach offers for case study analysis. In the context of the present PhD research, the approach pursued will be, as already mentioned, that of the State centric-relational approach to the study of socio-political governance, because the focus of this research is not the study of policy networks in the context of the Mexican water polity, but the study of the role of the State in the establishment and development of socio-political governance arrangements, represented by the MSPs for groundwater resources management.

In the following section, I will address some basic aspects of institutional analysis, because, ultimately, one of this PhD interests is to study of the socio-political governance arrangements as a form of institutional innovation. It will also present some aspects regarding the ‘State’ and ‘power’ that will be useful to help understand their role in the context of socio-political governance arrangements. Both notions are central concepts in the social sciences and at the centre of any elaboration on the socio-political governance phenomenon; despite the efforts made by some quarters to depoliticize the discourse on socio-political governance and remove any notion of conflict and social struggle out of it.

1.5. Institutional Analysis, the State, and Power in the Context of the Socio-Political Governance Phenomenon

It seems important to remember that we should not be fooled into believing without hesitation that socio political governance is devoid of politics (i.e. consensus-building, political struggle and conflict), involving only positive participatory and cooperative relationships between the State and other stakeholders through different type of

socio-political governance institutional arrangements.²³ Peters et al. (2012) reflects on this misconception:

“An even greater problem caused by the post-political vision of governance is that interactive forms of governance tend to be exempted from democratic demands. Hence, if interactive governance arrangements are considered to be un-political and devoid of power, there is no reason for making a fuss about their democratic performance and scrutinizing their democratic quality. (Peters et al., 2012:54)

Socio-political governance is about collective decision-making in more or less formalised institutionalised settings in which multiple stakeholders –with different interests, strategies and resources– are continuously engaged in politics, and under the ‘shadow’ or ‘aegis’ the State. Socio-political governance is also about the State sharing decision-making power with other stakeholders in civil society. These important considerations have been highlighted by the more critical scholars studying the socio-political governance phenomenon, and today are becoming more central and widespread to the debate (Swyngedouw, 2005; Castro, 2007; Peters et al.; 2012). On this ‘neglected’ aspect of the socio-political governance phenomenon Peters et al. (2012) again provides a telling insight regarding the prevalent research interests:

“As such interactive governance is often depicted as a pragmatic ‘problem solving’ process devoid of politics and power. Interactive governance is allegedly about “recognising the capacity to get things done” (Stoker, 1998: 24); not through the use of state authority, but through consensual deliberation and exchange among the relevant actors who are holding important information, knowledge, and other key resources. Thus, interactive governance is seen as a *depoliticized process of collaboration* guided by common purpose and technical rationalities.” (Peters, et al., 2012: 50)

Amongst this more critical vein of scholarly researchers, the emergence and consolidation of the socio-political governance phenomenon has triggered an important debate on its more realistic nature and characteristics, bringing the State, ‘power’, social struggle and conflict back into the debate and highlighting the essentially political nature of socio-political governance and the normative implications inherent to any governing process with due care for the public interest, democracy and social equity. These scholars warn us regarding the systematic overlooking of the role of the State and power relations in the ‘depolitisation of

²³ An interesting work that concurs with this view and elaborates insight on the pitfalls and limitations of social participation is: Cooke, B and U Kothari (2001), *Participation, the New Tyranny?*, London UK, Zed Editorial.

governance', maintaining that the image of consensual multi-stakeholder processes does not stand in empirical research, and underlining the need to put politics, the State and power at the centre of study of the governance phenomenon. E. Castro's (2007) critical views on socio-political governance also emphasise the political nature of socio-political governance:

"The core of 'governance' has to do with determining what ends and values should be chosen and the means by which those ends and values should be pursued (i.e. the direction of the social unit). Governance, in this sense, is not a strategy, and is not an idealised scheme of interaction between also idealised actors. Governance is always in this perspective, a political process involving the exercise of political power by political actors who seek to define the ends and values that must inform social development. It also comprises the identification of means to pursue those ends and values, and the adoption of suitable arrangements for the exercise of authority and power in the process." (Castro, 2005: 106-10)

So, in order to grasp the power-ridden character of socio-political governance, it is important to assess the role of the State in socio-political governance arrangements, to study how power is distributed in the context of socio-political governance arrangements and to unravel how they actually change or develop through time (i.e. their process of institutional change or development). This endeavour can only be undertaken by looking at particular case studies, a point highlighted by governance scholars. In the following sections of this chapter an attempt will be made to problematize the notion of institutions, the State and power and to elaborate on their impact in relation to the socio-political governance phenomenon. This elaboration will support the extraction of some useful analytical concepts that may later be deployed for the case study analysis.

1.5.1. Institutions and Institutional Analysis: The Historical Institutional Approach

A central objective of this PhD is to develop a historical-institutional understanding of the Mexican State-transformation process and a more in-detail institutional analysis of one form of socio-political governance arrangement, the MSPs for groundwater management. Therefore, it is important to establish some form of analytical perspective on this endeavour and present some useful concepts that can be later deployed for analytical purposes. As such Historical Institutionalism (HI) is an approach to the study of politics and institutions that distinguishes itself from other approaches for its attention to real life empirical questions, its historical orientation

and its focus on understanding how institutions structure political behaviour and shape political outcomes (Hall, 1996; Peters, 2000; Steinmo, 1992; 2008). HI seeks to study how institutional arrangements encourage or discourage political behaviour and strategic action on behalf of social actors in particular contexts. According to HI and simply put, institutions –such as State bureaucracies, legislatures, partnerships and also social class, etc.– structure politics. HI is one of the three most common forms of institutional theory, the others being Rational Choice and Sociological Institutionalism (Hall, 1996, Peter, 2000). The most important difference between them relies on their conceptualisation of human agency motivations.²⁴

In the case of Rational Choice Institutionalism, human beings are best described as individual rational actors who when confronted with decisions only think in terms of cost-benefit calculations affecting them (i.e. they are self-utility maximisers). Hence, institutions are important because they structure (i.e. create incentives and disincentives) for strategic behaviour (Ostrom, 1990, Hall, 1996, Peters, 2000). In contrast, in the case of Sociological Institutionalism, human beings are best described as social beings, that is as social actors that are not only self-interested, but are actually conditioned by habit and mores. For Sociological Institutionalism institutions frame the way in which people perceive the world, think and then act. Social actors act more according to a 'logic of appropriateness' that implies acting more in terms of responding to the question 'what should I do', instead of 'how do I benefit more' (March and Olsen, 1996; Peters, 2000). Institutions then are considered more as the norms and mores that govern formally and informally everyday social interaction.

According to institutional theorists, HI stands in the middle of both views, as they see social actors as being both 'rule' and 'norm' abiding beings, as well as self-interested rational actors. This conceptualisation has important implications for how the study of politics should be undertaken, because in order to truly develop an understanding of

²⁴ It is important to mention that by making this theoretical choice this PhD makes another theoretical demarcation and distances itself from the extensive and extremely interesting literature regarding to the study of the management of common pool resources –including aquifers– supported by the Rational Institutional perspective developed by the Bloomington School of Social Research and led by the Noble Prize Laureate E. Ostrom. This work is represented by Ostrom's seminal work: Ostrom, E. (1990) *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge, UK, Cambridge University Press; Dolsik, N and E Ostrom (2003) *The Commons in the New Millennium: Challenges and Approaches*, Massachusetts, USA, MIT Press; and Ostrom, E (2005), *Understanding Institutional Diversity*, Princeton, USA, Princeton University Press, amongst other important readings.

political decisions and outcomes, HI considers that is paramount to study the relationship between historical contexts, institutions, and individuals (Steinmo, 2014). S. Steinmo (2014) explains:

“But we also know that institutions do not determine outcomes (nor do they determine the path of history). This is not only because humans create and can change institutions, but also because human beings come to the institutions they inhabit with prior expectations and cognitive biases that affect how they will work within these institutions and adapt them to their local circumstances. We know, for example, that you cannot simply plant as set of institutions on a population (whether mid-20th Japan or early 21st century Afghanistan) and expect to easily predict how these institutions will be interpreted, use and manipulated. I believe that to understand the actual policy choice made in different countries, we must examine the interaction between history, political institutions, public policies and citizens.” (Steinmo, 2014: 1).

HI's research agenda then centres in understanding political life through unravelling the relationship between history, political, institutions and individuals (Pierson, 2004; Steinmo, 2014). In this endeavour a very important and first element of its research is the study of ideas and their implementation through strategies. For HI ideas and strategies play a central role in the process of institutional design, change and development (Peters, 2000). So, secondly, another important item in the research agenda is the study of processes of institutional design, change and development (Steinmo, Thelen and Longstreth, 1992; Pierson, 2004). HI analytical approaches seek to develop an understanding about the reasons behind the origin of particular institutional arrangements and how these reasons, as well as other factors later affect the process of institutional development. So they go on asking why, when and how do certain institutional arrangements are established in particular points in time and space. In order to respond to this questions HI aims to explore the features of social contexts that give rise to particular institutional forms (i.e. policy challenges, policy ideas, and socio-political and economic context), and in retrospect, also study how these historical contexts have affected the pertaining institutional arrangement's present institutional form and performance (Pierson, 2004).

Central to developing responses about institutional form and development is HI's interest is the notion of path-dependency. Path dependence refers to a dynamic process involving some form of “positive feedback” that determines that each step taken by a polity in a particular direction makes it more difficult to reverse a course of action (David, 2000; Peters, 2000). So the core of the path dependency concept refers to the idea that institutional history matters, once one direction is taken, it is

more or less enduring, and to modify it important efforts need to be applied. Accordingly, path dependence refers to developmental trajectories that are inherently difficult to reverse, as time passes by –and reinforcing mechanisms exert their influence–, so switching to another alternative becomes more difficult and probably also most costly (Pierson, 2004). Pierson (2004) explains:

“Analysts are increasingly inclined to invoke the concept of path dependence, but clear definitions are rare. In practice, usage tends to fluctuate between a broader and narrower conception. William Swell for instance suggests that path-dependence means that what happened at an earlier point in time will affect the possible outcomes of a sequence of events occurring at a later point time.” (Pierson, 2004: 20).

This means that path dependence refers to a dynamic process involving some form of “positive feedback” that determines that each step in a particular direction makes it more difficult to reverse a course of action (David, 2000; Peters, 2000). So the core of the path dependency concept refers to the idea that institutional history matters, once one direction is taken, it is more or less enduring, and to modify important efforts need to be applied. Accordingly, path dependence refers to developmental trajectories that are inherently difficult to reverse, as time passes by –and reinforcing mechanisms exert their influence–, so switching to another alternative becomes more difficult and probably also most costly (Pierson, 2004).

Another important study focus is the analysis of timing and sequence. HI highlights that in order to understand a pattern of institutional formation, change and development, it is necessary to unravel the timing and sequence of such processes. This research endeavour is pursued by then by looking at the characteristics of ‘critical conjunctions’ (Peters, 2000; Pierson, 2004). It is then that by unravelling the interaction effects between distinct sequences of events that are joined together at particular points in time and space –and that have a strong influence in the definition and establishment of institutional arrangements and their process of institutional change and development– how analysts can gain knowledge into this processes. Still, HI emphasises one important distinction, when researching patterns of institutional formation, change and development, one should not only focus in ‘precipitating causes’, but more so in ‘structural causes’ (Pierson, 2004). Accordingly, precipitating causes can produce certain institutional changes, but if structural causes do not provide for underlying support or attune with these

precipitating causes, it is possible the orientation of such institutional changes may not be sustained in time and space (Pierson, 2004).

The above discussion on HI is brief, but attempts were made to recuperate some essential concepts that can later be harnessed to support the design of an analytical device that will enable this PhD to study the process of institutional formation, change and development of MSPs for groundwater management in the context of the Mexican water polity.

1.5.2. Some Words on the State: The State as a Social Relation, State-projects and State-strategies

The theoretical debate on the notion of the State is extremely extensive as it is interesting. For reasons of space, no attempt in this chapter is made to engage thoroughly with this debate, except only to present a particular understanding of the State as a social phenomenon, and to support this PhD's research on the process of State-transformation and role of the State in the establishment and development of socio-political governance arrangements.²⁵ So perhaps a good starting point to provide some focused reflections on the conception of the State is by beginning with a particular definition and understanding of how it is possible to consider it in theoretical terms. This reflection basically draws its argumentation from the post-Marxist view on the State developed initially by N. Poulantzas (1975, 1978) and then developed further by B. Jessop (1990, 2008) through his 'Strategic Relational Approach'.²⁶

Both of these scholars initially present a simple functional description of the State apparatus defined as the distinct ensemble of institutions and organisations whose

²⁵ An interesting, comprehensive and straightforward reading on the State phenomenon is Hay, C, Lister, M. and D. Marsh (eds.) (2006), *The State: Theories and Issues*, Hampshire, UK. MacMillan Editorial. In this work several authors present different perspectives on the State phenomenon, from the very classical viewpoints –such as Pluralism and Elitism–, through green and feminist perspectives, to the more recent views on the State in the context of globalisation and governance. Other classic work that also provides insightful readings is Evans, P. B. (ed.) (1985), *Bringing Back the State* In, Cambridge, UK, Cambridge University Press. From the perspective of environmental politics some of the work that helped to shape the orientation of this PhD and that served as background readings are: Barry, J. (1999), *Rethinking Green Politics*, London, UK, Sage Editorial; Barry, J. and R. Eckersley (2005), *The Green State: Rethinking Democracy and Sovereignty*, Massachusetts, USA, MIT Press; and Barry, J. and R. Eckersley (2005), *The State and the Global Ecological Crises*, Massachusetts, USA, MIT Press.

²⁶ Please see: Poulantzas, N. (1975), *Political Power and Social Classes*, London, UK, Verso; Poulantzas, N (2014), *State, Power, Socialism*, London, UK, Verso; Jessop, B (1990), *State Theory: Putting the Capitalist State in its Place*, Cambridge, UK, Polity Press; and Jessop, B. (2008), *State Power, A Strategic-Relational Approach*, Cambridge, UK, Polity Press.

socially accepted function is to define and enforce collectively binding decisions on a given population in the name of the 'common interests' and also the 'general will' (Poulantzas, 1978; Jessop, 2008).²⁷ So far this functional conceptualisation is straightforward and seemingly clear, but both scholars go on further in their considerations regarding the State. According to N. Poulantzas (1978) and B. Jessop (1990,2008) the State is not to be considered an entity, but a social relation (Jessop, 2008). This conceptualisation requires some clarification.

Both Poulantzas's and Jessop's notion of the 'State' as a social relation means considering the State as something that is not essentially fixed, nor as the neutral and autonomous coordinator of socio-political interests, nor the guarantor of the common interest *per se*. Rather for them, the State is determined in its orientation, institutional form and capacities by the nature of the wider societal relations in which it is situated in, and especially by the balance of social forces in the polity. Poulantzas (1975) continues elaborating on these ideas and depicts the State not as a "monolithic bloc" or a simple sovereign legal body, instead he considers the State as being comprised by different 'apparatuses, sections and levels' that serve as 'power centres' for different faction alliances in the 'power bloc'.²⁸ He also considers these centres as points or nodes of resistance for different social actors in the polity. Thus, for him the State must be understood a "strategic field" formed through intersecting power networks that constitute a favourable or unfavourable terrain of political manoeuvre, not only for the hegemonic faction, but also by counter-hegemonic forces. Furthermore, for him the capitalist State is the material condensation of the balance among class forces, insofar as the State actually helps to constitute that balance –rather than simply and straightforwardly reflecting it– and

²⁷ This PhD research accepts this initial and basic functional definition of the State. Certainly in the water policy sector, the State should be at the centre of the pursuit of a more democratic, egalitarian and sustainable water resources management, of water supply and sanitation for all, and an inclusive and widespread water security; aspects that ideally should be part of 'common interests' and 'general will'.

²⁸ Poulantzas explains the participation of several social classes and class fractions in the process of political domination through the exercise of State power by the concept of 'power bloc.' A power bloc is to be understood as the contradictory unity of dominant classes or fractions whose interests are antagonistic rather than monolithic. A power bloc is always dominated by an hegemonic class or fraction that is capable to establish its own economic interest as the general common denominator of the overall power bloc and at the same time making itself the representative of the general common interest of such power bloc. It is then that from this privileged position within the power bloc, the hegemonic class reproduces its own privileged position within the relations of political domination and economic exploitation. (Poulantzas, 1975). For an interesting compilation of Poulantzas political thinking please see: Martin, R. (2008), *The Poulantzas Reader*, London, U.K., Verso Editorial.

in the case of the capitalist state in favour of capitalist interests, so driven by the goal of securing material conditions to enable processes of capital accumulation.²⁹

The conception of the State as a social relation is insightful. From this conception it is possible to consider that through history polities around the world have somehow socially constructed their own particular State-forms that are somehow the product of the balance of social forces in the polity. State. B. Jessop (2002) explains in the following extract:

“Following the prewar Italian communist, Antonio Gramsci, and the postwar Nickos Poulantzas, I consider the state as a social relation. The former proposed an inclusive definition of the state in its integral senses as political society plus civil society (Gramsci 1971); the latter analysed state power as form-determined condensation of the balance of political forces operating within and beyond the state (Poulantzas, 1978). Combining their ideas, one can define the state as an ensemble of socially embedded, socially regularised and strategically selective institutions, organizations and social forces and activities around (or at least actively involved in) making collectively binding decisions for an imagined political community. State power can be understood in turn as a power relation that is mediated in and through this institutional ensemble. It is not exercised by the state as such: the state is not a subject. Nor does it originate entirely within the state itself or from among the state’ personnel. Instead it depends on the balance of forces within the wider society as well as those within the state apparatuses. (Jessop, 2002:6)

As already mentioned, Poulantzas (1978) and Jessop (2008) consider that the State is not autonomous, but has a social basis. This social basis is to be understood as the specific configurations of social forces organised as political actors that support the basic structure of the State. This support is brought about by consensus and also conflict over specific policies as long as such conflict occurs within an agreed institutional framework and accepted ‘policy paradigm’ in use, and that establishes the parameters of public choice. It should be noted that political support is not reducible simply to question of consensus –as mentioned above-, but depends on the specific modes of societal integration available in the respective Statehood formation and that channel, transform and prioritise demands and manage the flow of material concessions to these political actors; concessions that are necessary to

²⁹ Capital accumulation can be, very succinctly, explained according to Marxist theory, as the operation whereby profits are reinvested in time and space, increasing the total quantity of capital. In order for capital accumulation to occur there are certain preconditions that have to be enabled –by the capitalist State– such as the rule of law, property rights, labour contract law, etc. For a more elaborate introduction to this concept, applied to environmental studies please see: Smith, N (1990), *Uneven Development*, Georgia, USA, University of Georgia Press.

maintain the 'unstable' equilibrium of compromise that underpins its support (Jessop, 2008). An example of this is corporativism and clientelism.

Jessop (2002) goes further in deploying concepts to unravel the idea of the State in what he considers a State-Relational approach. Under this approach any particular 'Statehood formation' (e.g. the Developmental-Interventionist, the Welfare, Social-Democrat, the Neo-liberal Statehood formations) will seek to consolidate a distinct State project, and in order to do so will deploy or implement a range of State-strategies, which outcomes depend on the capacity of the State to stabilise them in the polity. These outcomes are always contingent on the social struggles that support or contest them. Accordingly such State-projects are pursued through different State-strategies that seek to advance their consolidation. Together these considerations imply that from a Strategic-Relational approach, the State's powers and capacities do not depend solely on the nature of the State as an autonomous institutional apparatus, but depends on forces that lie beyond it.

Two other concepts from the State-relational approach require unpacking, because they are useful for analytical purposes. The first one, the concept of State project, refers to any initiative that aims to provide State institutions with some measure of functional unity, operation, coordination and organisational coherence. State projects can target the State itself as a distinct institutional ensemble within the existing broader social forces in a polity (Jessop, 2002, 2008; Collin, 2006). Political actors then seek to stabilise their selected State project and normalise preferred State-civil society relations. The second one, the notion of 'State strategies', refers to any initiative to mobilise State institutions in order to promote particular forms of socio-economic and even environmental intervention. State-strategies focus on the articulation of the State and non-State institutions, attempting to regulate socio-political and economic behaviour, the circuit of capital, and the balance of social forces in order to ensure the process and characteristics of capital accumulation, as well as other specific sectorial policy objectives. Specific State-strategies are part of a particular State project (e.g. liberalisation, deregulation, decentralisation, and socio-political governance). State-strategies can be consolidated and also contested. The above discussion on the State will help support the definition of the second moment of analysis, an aspect that will be dealt with in chapter 4. I will now devote some efforts to developing some useful insight regarding the concept of power.

1.5.3. Power in the context of the Socio-political Governance Debate

In order to address the issue of power in socio-political governance it is necessary to look briefly into some of the main conceptualisations on this phenomenon, bearing in mind that 'power' is one of the most broadly studied phenomena in the social sciences and it is not possible in this document to look profoundly at the different theories and notions about it. So, the ideas presented in this document about power are only to aide in describing how power may operate in the context of socio-political governance arrangements.³⁰ In the power and the governance studies literature it is possible to find three distinct approaches to the understanding of power: power in socio-political governance arrangements, power of socio-political governance arrangements, and power over socio-political governance arrangements. The following is a brief engagement with this debate.

1.5.3.1. Power in Socio-political Governance Arrangements

A good starting point for the analysis of power in socio-political governance arrangements is by looking at power relations as they are most often defined, that is 'power over', referring to the attempt by one social actor to affect the 'agency' of another in order to secure a preferred outcome (Stewart, 2001; Lukes, 2005, Peters, 2012). This is clearly represented by S. Lukes' first dimensions of power (i.e. – direct– power is a successful attempt by A to make B to do something that he/she would not otherwise do), the second dimension (i.e. A exercises –indirect– power by regulating and controlling the political agenda in order to hide conflicts by supressing ideas, proposals, and decisions promoted by B), and, finally, a third dimension (i.e. A manifests its –ideological– power over B by manipulating its subjective perception and interests over something in order to align it to its own). More recently, post-structuralist political scientists have complemented the three dimensions of power

³⁰ The literature studying power is really as extensive as it is interesting. It is not the object of this PhD to provide for an exhaustive elaboration on this important political concept, still I will use some notions to help support my argumentation and provide clearer bases for case study research. In the literature on power there is a clear distinction between the notion of power over –a conception of power that focuses on domination– and power to –a conception of power that focuses on the capability of human agency to act, and more so to act in concert. For an interesting discussion on this forms of power please see: Stewart, A (2001), *Theories of Power and Domination*, London, UK, Sage Editorial. For an interesting discussion on the structural conditions that determine the distribution of power in society see: Mann, M. (1993), *The Sources of Social Power*, Cambridge, UK, Cambridge University Press. A more intricate post-structuralist and anti-essential approach to power is provided by: Dryberg, V (1997), *The Circular Structure of Power*, London, UK, Verso Editorial.

with one other perspective based on a discourse theoretical approach (Gordon, 1980; Dryberg, 1997; Dean, 1999). Accordingly, power is also exercised through the development of institutionalised discourses that seek to shape the overall conditions of action of social actors, forming subject-identities, rationales, preferred types of socio-political relationships, concepts, etc.³¹ These four dimensions of power, hence, capture the different ways social actors exercise power over other actors.

Scholars agree that in the context of socio-political governance arrangements the exercise of direct, indirect, ideological and discursive power is certainly present (Peters, et al. 2012). The exercise of direct power in open conflicts about decisions happens as social actors seek to influence collective decisions in order to pursue their own interests. This is clear, however, strong use of direct power is more difficult to exercise because socio-political arrangements exist due to the voluntary participation of stakeholders who engage in the governing process with the hope of having an open channel of communication and democratic decision-making. So, strong actors are –more or less– constrained to use direct power by the ‘exit’ power of other social actors, as well as the ‘shaming’ and the loss of trust that can be brought about by its use.³²

In the case of socio-political governance arrangements indirect power –that is aiming to control the agenda– and ideological power –aiming to influence other actors’ perception of their interests– seems to be a more relevant form of power to be encountered (Peters et al., 2012). Lastly, social actors participating in socio-political governance arrangements may also be strongly influenced by the institutional discourses that define what is considered valid agency, knowledge, normative premises, and discourses throughout the governing process (Peters et al. 2012). Hence, the discursive form of power also frames and structures social interaction in socio-political governance arrangements.

There is another important aspect that requires devoting some attention too. What is then the source of power in socio-political governance arrangements? Again following the classic writers on power, the standard political science approach for

³¹ For an interesting application of these notion of power to the field of environmental politics please see: Hajer, M (1995), *The Politics of Environmental Discourses*, Oxford, UK, Oxford University Press; and Dryzek, J (2013), *The Politics of the Earth, Environmental Discourses*, Oxford, UK, Oxford University Press.

³² The point regarding the ‘power of exit’ is also highlighted by scholars studying democratic theory. Please see Warren, M (2001), *Democracy and Associations*, Princeton, USA, Princeton University Press.

identifying the source of power in socio-political governance arrangements is to look at the actors' possession of resources and capabilities that, in turn, are determined by structural background conditions that generate economic and political inequalities, as well as cultural disparities (Poulantzas, 1975). Still, in the context of socio-political governance arrangements, scholars are also turning to other forms of explanation to the sources of power, such as social networks analysis (Prell, 2011; Scott, 2012) and social power (Lukes, 1986; Haggard, 2002).

Both conceptions of power are based on 'relational' determinants that stem from the structural position of a particular social actor in the wider network of actors. This implies that the relational or 'network power' of a social actor is contingent to the number of links it has to the network; as these links will give him/her access to knowledge, resources, experience, trust, reciprocity, etc. Consequently, such relational positions may turn an actor into a powerful social actor –a broker– who can steer and control interaction, and thus shaping negotiations and decision-making processes. This also resonates with the arguments advanced by social capital theorists (Putman, 2000; Halpern, 2005; Field, 2008).

1.5.3.2. The Power of Socio-political Governance Arrangements or Countervailing Power

Referring to the 'power of socio-political governance' implies accepting that socio-political governance institutional forms can be unified political actors –with a specific and certain level of capacity and resources– to work jointly to address collective action problems and affect the polity they are part of, thus influencing also its path of socio-environmental change. As a unified political actor, a socio-political governance institutional form can define its relationship with the State, sometimes working alongside it, but also sometimes resisting its orientation and struggling against specific 'State strategies', something refer to also in the literature as 'countervailing power' (Fung, 2003). Countervailing power is a 'manifestation of power' that reduces, and perhaps neutralizes the power advantages of 'powerful actors' in the context of socio-political governance arrangements. Countervailing power is not so much an open and open adversarial form of power, but more a form of collaborative power that serves to resist in the context of social participation and stakeholder cooperation. Peters et al., (2012) explain this clearly:

“As such, the power of interactive (*socio-political*) governance involves both ‘a power to govern’ through the capacity of joint action and societal regulation and a ‘power over government’ through the capacity to affect governmental decisions and regulations. Hence, when studying the power of interactive governance we are interested in the way that negotiated interaction in quasi markets, partnerships, networks and other influences the formulation and implementation of policy. In other words, we should be focusing on the particular attributes of interactive governance arenas that seem to condition its political impact and power.” (Peters et al., 2012: 59)

The governance literature studying the ‘power of socio-political governance focuses its attention on the conditions that convey socio-political governance arrangements with a certain level of power (Kahler, 2009; Peters, 2012). A number of conditions appear in such studies, such as: the level of institutional development of the socio-political governance arrangement –that is its the level of consolidation in the polity, which implies in this case achieving a level of functionality to support the pursuit of objectives–, and the institutional design features –that convey them with the scalability and adaptability necessary to prosper and evolve. In this case, scalability is to be understood as the ability of the socio-political governance institutional form to expand its membership at a relatively low cost without fundamentally changing the organisation (Kahler, 2009). Its adaptability is defined as the capacity to transform its own institutional design features and incorporate the necessary characteristics to respond to shifting endogenous and exogenous pressures that affect its capacity for collective action and political influence (Kahler, 2009; Peters et al., 2012).

The governance literature is also very much aware that the institutional development process of socio-political governance arrangements and their actual institutional design features are not the only conditions affecting their evolution and performance. It is also important to consider the fact that their power depends also on the characteristics of the political environment –the contextual background conditions– and the State form of the polities where socio-political governance arrangements are embedded in. Peters et al., (2012) provide an opinion on this matter:

“As such, it seems clear the political systems with a strong tradition of participatory governance and corporatist involvement, a fragmented and devolved political system with many access points, and multiparty systems based on coalitions government will tend to enhance the impact of interactive forms of governance. (...) Conversely, highly statist, unitary and centralised political systems based on one party majority government will tend to mitigate the impact of interactive governance. Bob Jessop refers to the effect that different state forms have on the formulation and realisation of particular governance strategies in terms of the ‘strategic selectivity of the State’. (Peters et al., 2012: 62)

This situation impels governance analysts to develop the necessary tools to study also how these contextual background conditions impinge on socio-political governance institutional forms. Amongst these contextual conditions, the literature emphasises that the nature and characteristics of the State formation and the level of decentralisation/devolution and empowerment has critical influence, a point also shared by associative and deliberative democratic scholars (Torfing, Peters, Pierre and Sorensen, 2012). This situation urges to develop some understanding on the conception of the State, and as already highlighted.

1.5.3.3 Power over Socio-political Governance Arrangements

Socio-political governance arrangements are constantly shaped and regulated by the State. However, traditional hierarchical and command and control instruments are not the only –or the best mechanisms– to do so; this is because using such top-down instruments risks undermining the social participation/involvement and stakeholder cooperation of socio-political governance arrangements. This is why the State has sought to govern over socio-political governance arrangements in more subtle and indirect way through meta-governance strategies.³³

A first ‘direct’ strategy is quite straightforward and refers to the opening/establishing or closing down socio-political governance arrangements. As such the State has the authority and the power to convene multiple actors whose participation is relevant to address a policy process and to establish a socio-political governance arrangement. It has also the authority to dismiss them and close them down, albeit it could be the case that not without political cost and social resistance (Peter et al., 2012).

States can also exercise meta-governance capacities by regulating the access of different social actors to socio-political governance arrangements. This is indeed a powerful meta-governance capacity, as deciding who can participate –when and how– and who is excluded is a very effective way to strengthen or weaken particular interests and voices in socio-political governance arrangements. Still it is important to comment that as soon as a socio-political governance arrangement is established, the State can sometimes loose some control over who is included and excluded. In order to maintain some form of power over socio-political governance arrangements,

³³ Towards the end of this chapter a more thorough elaboration pertaining to the debate on meta-governance will be presented, but here I will explain some basic notions that are tied directly to notion of ‘power over of socio-political governance’.

another tactical manoeuvre is to compensate by a process of 'selective empowerment or disempowerment' of individual stakeholders (i.e. through veto power, capacity building, targeted financing, etc.) (Torfing and Triantafillou, 2011; Peters, 2012)

Constructing the agency of social actors in socio-political governance arrangements is another way to exercise meta-governance capabilities. In this case governments can define through different means such as the *ex-ante* definition of rules, regulations, and discourses that establish a framework for social action. Constructing the social agency implies then the creation of other incentives and disincentives for social action (e.g. the granting of financial and technical assistance). This is referred to by institutional theory as the development of a 'logic or appropriateness' that is the moulding of agency to abide to a preferred form of interaction (March and Olsen, 1995; Peters, 1999).

The assessment of socio-political governance arrangements is also another way to exercise meta-governing power. It is then that by monitoring and evaluating the performance of the socio-political governance institutional form –in terms of the achievement of its objectives and the means to achieve them– can turn into a way to either reward or penalise it, and thus control their development in time. Finally, the State can exercise a direct power by changing the overall institutional architecture of the socio-political governance arrangement (Fung and Wright, 2003; Peters, 2012).

Reviewing succinctly the different faces of power in the context of socio-political governance may allow us to study how these may manifest in the context of empirical case studies. Based in the above argumentation presented in the preceding sections of this chapter, I will now like to offer a functional definition of socio-political water governance.

1.6. A Functional Definition of Socio-political Water Governance and Multi-stakeholder Platforms for Integrated Water Resources Management

I would like now to present a working definition of socio-political water governance that will be used to animate the 'research spirit' and the research hypothesis of this PhD research. This definition borrows from the work of E. Swyngedouw (2005), Allen, Davila and Hoffman (2006) and E. Castro (2007), because these scholars make important efforts to emphasize the idea that socio-political governance, more

than a new political strategy –albeit it can start like this–, is a complex political process of which its outcome is uncertain and hinging on the array of existing socio-political forces and power relations, thus highlighting the normative concerns regarding the role of the State, the form and distribution of power and democratic performance. Below then is a definition of socio-political water governance, one that seeks to highlight certain elements of the debate that are an integral element of the research questions orienting this PhD research and that somehow have supported the definition of the research hypothesis:

“Socio-political water governance is a complex process through which different stakeholders with different perspectives, interests and capacities interact with each other through new institutional structures and policy processes (i.e. socio-political governance arrangements), that they socially construct –shape, sustain and transform– in order to enable social participation/involvement and stakeholder cooperation and to address water resources management, water supply and sanitation and water security challenges. They do so by way of establishing, mobilising and exchanging an array of resources (i.e. discourses, rules-regulations, resources, and social agency) to pursue both individual and collective interests throughout the governing process. Socio-political governance arrangements are not devoid of politics and thus their outcomes are open-ended and uncertain.”

As already mentioned, in the water policy sector there are many different types of socio-political water governance arrangements developed to address many different types of water resources management, water and sanitation services and water security challenges. The case of MSPs for water resources management (MSPs) is one form of socio-political water governance arrangement that has been highlighted in the literature for its capacity to enable social participation/involvement and stakeholder cooperation in order to deal with complex, interdependent and crosscutting problems, including groundwater resources management Dourojanni, Jouravlev, and Chavez, 2002; Warner, 2007; Kemper, Blomquist and Dinar, 2010). I will now devote some attention to develop some notions regarding MSPs for water resources management, and because, as already mentioned, MSPs for groundwater management in Mexico represent the case study under investigation.

1.6.1. Multi-Stakeholder Platforms for Integrated Water Resources Management

In the water policy sector an illustrative example regarding the emergence of socio-political governance arrangements is the one pertaining to the development of multi-stakeholder platforms for water resources management at the river basin micro-

basin, transboundary basin and aquifer levels (Jaspers, 2003; Crase, and Gandi, 2009; Edelnbos, Bresser and Scholten, 2013).³⁴ These MSPs have been created to precisely enable greater social participation/involvement and stakeholder cooperation to address water resources management challenges and water security concerns. J. Warner (2007) illustrates this situation clearly in the following intervention:

“Policy-makers, donors, NGO’s water managers –all are intrigued by the sound of multi-stakeholder platforms (MSPs) as new form of cooperation and participation in the face of (imagined or real) water conflict. MSPs appear as ensembles of cooperation and negotiation involving multiple sectors or actors within a watershed. A widely accepted definition defines platforms as a decision-making body (voluntary or statutory) comprising different stakeholders who perceive the same resources management problem, realise their interdependence for solving it, and come together to agree on action strategies for solving the problem. It is like a roundtable, where people are gathered with very different perspective. From a functionalist perspective, MSPs are perceived as problem-solving institutional innovations, to democratise water management, to manage conflict, event to make water management more efficient.” (Warner, 2007: 1).

MSPs are hailed for being helpful for addressing complex and interdependent water resources management challenges, because they are perceived as useful institutional innovations to support the necessary associative activity and public deliberation between different stakeholders to develop the sense of interdependence, the shared vision and objectives, as well as necessary collective action to address these challenges. Like in other discussions on the virtues and benefits of socio-political governance arrangements, MSPs are presented as ‘ideal type institutional arrangements’ imbued with a positive value connotation. In this sense, MSPs are being considered as means to build an inclusive, effective, efficient and democratic water resources management processes (Currie-Alder, 2007).

The expectations on MSPs started high as institutions for water resources management, and also as vehicles for democratisation and empowerment (Figueres,

³⁴ An important part of the MSPs literature focuses on the prospect and challenges of river basin organisations and river basin councils. Indeed it is possible to say that most of the scholars and practitioners studying MSPs have concentrated their attention in such institutional forms. This situation creates an interesting opportunity to contribute to the study of MSPs for groundwater resources management. Relevant readings on the subject matter for the interested reader are: Dourojeanni, A., Jouravlev, and G. Chavez (2002), *Gestión del Agua a Nivel de Cuencas*, Santiago de Chile, Chile, CEPAL. Blomquist, W. Dinar, A and K. Kemper (2005), *Comparison of Institutional Arrangements for River Basin Management in Eight Basins*, Washington, USA. World Bank; Cotler, H. (ed.) (2004), *La Gestión Integral de Cuencas, estudios y reflexiones para orientar la política ambiental*, Ciudad de México, México, INECC:

Tortajada, and Rockstrom, 2003; UNESCO, 2006; Warner, 2007). Nonetheless, it is possible to consider that MSPs face the same type of problems as other socio-political governance arrangements, and currently these expectations are more tamed and realistic, and for reasons that will become clearer as we go along in this document. I shall now turn to elaborate more on the nature and characteristics of MSPs in the water sector.

1.6.1.1. Unpacking the Different Dimensions of MSPs

- *Some General Considerations*

A specific purpose of MSPs is to support the development of shared governing objectives and joint implementation of actions and initiatives that reflect individual stakeholders' interests, and also collective goals. Consequently, MSPs need to balance shared objectives –intended to achieve such collective goals–, and also stakeholders' objectives –as the pursuit of individual objectives motivates them also to participate in the MSP (Warner and Verhallen, 2007). This is not an easy task that demands the design, enablement and management of associative and public deliberation processes capable of including all relevant stakeholders, manage consensus-building decision making processes and enables joint implementation processes; all central aspects of the MSPs spirit.³⁵

MSPs are also considered helpful to unlock stalemate in decision-making and distrust amongst social actors –again precisely through a sustained process of associative activity and public deliberation. MSPs may also support greater transparency and accountability by exposing the different rights, roles, responsibilities and performance of stakeholders. Very importantly, they are also considered mechanisms to support social learning and capacity building processes (i.e. including opportunities to gain skills, exchange knowledge and experience and share valuable information) (Watson, 2007). Finally, MSPs are considered to have not only an important managerial or administrative role, but also a political one as they, in principle, are designed to allow previously disenfranchised or marginalised stakeholders to gain empowerment throughout the governing process (Verhallen,

³⁵ Indeed this consideration is an important factor that compelled me to use the associative and deliberative democratic theories to support the development of the analytical framework to study the democratic prospects and challenges of multi-stakeholder platforms for groundwater management in Mexico.

Warner and Santbergen, 2007). In the next section a more in-detail description of MSPs is given.

- *Important Dimensions: Scale, Scope and Structure*

In order to understand MSPs in more detail, a standard initial approach developed by scholars is to start with a simple description on their scale, scope and structure (Currie-Alder, 2007). Accordingly, the 'scale' of an MSP refers to the spatial and temporal boundaries of the water resources management process it is established for, be it its expanse in time in space (i.e. a river basin, a micro-basin or aquifer and related ecosystems, etc.). In the water sector the scale of the MSP is always challenged by the need to address complex problems with different interdependencies and trade-offs, and by greater understanding of socio-ecological processes (e.g. IWRM and conjunctive use) (GW-Mate, 2010; Knuppe and Pahl-Wost, 2011; Wijnen, 2012).³⁶

The 'scope' of an MSP concerns the conceptual and institutional boundaries defining what is considered in the water resources management process; putting it simply, the main goals and objectives of the of the MSP (i.e. sustainable water resources management, water allocation and distribution, water conservation, groundwater management, democratisation, stakeholder participation, etc.). Scholars studying MSPs highlight the need to carefully study the scope of an MSP; because it is in the scope's definition process where important prospects and challenges for sustainable water resources management may be found.

Lastly, the 'structure' of the MSP concerns its actual institutional design features. The institutional design features define the relationship between the stakeholders and the water resources under management, the relationship between stakeholders in the MSP and the relationship between the MSP itself and the wider water polity. The 'structure' also defines the type of authority and power of the MSP, the form of its decision-making process, the type of the policy mechanisms used to address governing challenges, the financial arrangements, the accountability and transparency safeguards, etc. The MSP literature advises, that the 'right' fit between

³⁶ Conjunctive use is often discussed in water resources management. It is a term used to describe a practice that consists in harmoniously combining the use of both surface water and groundwater resources in order to minimise the undesirable physical, environmental and socio economic effects of each solution and to optimise the water demand and supply balance.

the scale, scope and structure of the MSP is necessary for a successful sustainable water resources management.

- *Stakeholder Participation (Rights, Responsibilities and Roles) and the 'Platform' Concept*

There are other important institutional structure dimensions that need to be explained regarding the MSP, including what it is meant by 'stakeholder participation' and its nature as a 'platform' for water resources management. 'Stakeholder participation processes' in MSPs is considered a process through which a powerful stakeholder – frequently a government institution– decides to share the governing responsibility with other interested stakeholders that participate throughout the governing process (Warner, 2007). This decision, as we have explained previously, is prompted by a change in the governing rationale that impels the State to establish an MSP as a new socio-political governance arrangement for water resources management.

In the context of MSPs in the water sector, a 'stakeholder' is considered to be any individual or group who stands to lose or gain from the water resources management process, and thus, has some form of personal or group investment in the governing outcomes. A very important point to make is that the State plays an important –sometimes a leading– role in the MSPs. Most of the stakeholders in the MSP are direct water users, but other stakeholders also participate, such as NGOs, research centres, international organisations, etc. In the case of the water users in many cases the 'stake' is actually a livelihood dependence on water resources; a situation that frequently impels them to participate. Frequently, this stake –or relationship between the social actor and water resources– is dynamic as it changes frequently through time (Milot and Lepage, 2010).

In the MSP's discourse, the concept of 'platform' evokes the idea of a 'level playing field'. The reality is that in MSPs not all stakeholders are equal in their interests, capacities and resources, for example, stakeholders can be powerful or weak, organised or disorganised, and active or passive. These 'agency' characteristics are defined by multiple factors, including the different dimensions of power discussed in the previous section of this chapter. Thus, MSPs can also be studied and evaluated in terms of their stakeholder inclusion and empowerment, that is to say, which stakeholders are involved in an MSP, and what is the degree of influence they have in decision-making processes that affect them. In this sense, although frequently the

case is that MSPs evaluations focus mostly on efficiency and effectiveness concerns, carrying out evaluation in procedural terms (i.e. democratic decision-making processes) and more substantive terms (i.e. social equity) is important.

In an MSP stakeholders have rights, responsibilities and roles (Currie-Alder, 2007). In the context of MSPs a 'right' is considered to be an entitlement that each stakeholder possesses, that defines its relationship with the pertaining water resource – such as a property right, a water user concession or exploitation right, etc. There are other rights that are defined by rules and regulations, and that are very much context specific. The 'responsibilities' describe how a stakeholder contributes to the water resources management process, including all the activities that they do to support the MSP and more generally the water resources management process. Finally, a 'role' is defined by the overall purpose or 'identity' that the stakeholder is entitled to do enact and perform. A 'role' implies both the degree to which a stakeholder participates in the MSP and the relative influence he or she has in decision-making. These rights, responsibilities and roles are hence circumscribed and also contested throughout the socio-political water governance process. So, rights, responsibilities and roles change over time (Milot and Lepage, 2010; Mollard and Berry, 2010).

- *Evaluation: Effectiveness, Equity, and Efficiency*

The MSPs literature purports also that MSPs can be evaluated according to an effectiveness, equity and efficiency criteria (Currie-Alder, 2007; Warner and Verhallen, 2006). So, 'effectiveness' can be considered to be the extent to which an MSP achieves its objectives, including the extent it attains both the shared and the individual stakeholder objectives. Effectiveness needs also to consider the extent of social participation and coordination realised. In terms of 'equity' in the context of MSPs, it should be considered as the degree of fairness in the distribution of cost and benefits amongst stakeholders involved in the MSP and throughout the governing process. Lastly, 'efficiency' is the ratio of management outcomes to the costs of achieving those outcomes. For example, at times the ratio of economic costs at the beginning of the MSP process is extremely high in relation to the outcomes, but in the long term this ratio may become more positive (Warner, 2006). As I mentioned earlier, in order to develop a comprehensive evaluation criteria it is important to focus in procedural and substantive aspects.

This section presented some important notions regarding MSPs as one form of socio-political governance arrangement. Accordingly, MSPs can be described in terms of their scale, scope and institutional structure. They can also be assessed in terms of their efficiency, equity and effectiveness. MSPs, like all other forms of socio-political governance arrangements, are not devoid politics, and thus they should also be assessed in terms of the role of the State in their institutional development, how power manifests through them and their democratic performance. The next section in this chapter elaborates on this important consideration.

1.7. Democratic Prospects and Challenges of Socio-political Governance

The relationship between socio-political governance and democracy is perceived by the more critical scholars of the 'governance phenomenon' to be full of tensions. For them the post-political view of socio-political governance is rather unfortunate, as it prevents us from grasping its truly political and power-ridden character (Swyngedouw, 2005; Allen, Davila and Hoffman, 2006; Castro, 2007; Peters et al., 2012). This perspective is also considered to be even biased towards a pragmatic accommodation on behalf of the State and behind the tendency to consider socio-political governance arrangements devoid of conflicts and power-struggles, exempting them, hence, from thorough and systematic democratic scrutiny (Torfing and Triantafillou, 2011; Peters et al., 2012). Swyngedouw (2005) refers then to the contradictory nature of "governance beyond-the-state" (i.e. socio-political governance):

"Our focus will be on the contradictory nature of governance beyond-the-state and, in particular, on the tension between the stated objectives of increasing democracy and citizen's empowerment on the one hand and their often undemocratic and authoritarian character on the other." (Syngedouw, 2005:1993)

As such these governance scholars have generated a different argument, as we have mentioned above. This argument is that socio-political governance arrangements seem to offer both the potential to support stronger democratic practice and the empowerment of previously disenfranchised groups, at that same time that they also can become sources of even greater political and social inequality. Much like democracy, socio-political governance in this sense is an uncertain and open-ended state, an outcome contingent to its own process of social

construction, as stated in the definition on socio-political water governance.³⁷ In this sense, socio-political governance arrangements are perceived neither to be intrinsically democratic nor intrinsically undemocratic. Peters et al., (2012) highlight this important tension in the following passage:

“Over the last ten years, debates concerning the democratic implications of interactive forms of governance have been gaining more and more momentum (Sorensen and Torfing, 2007). While governance researchers tend to agree that the surge of interactive governance arenas such as quasi-markets, partnerships and networks have implications for the role and functioning of democracy, there is less agreement about what these implications are (Klijn and Skelcher, 2007). Some argue that interactive forms of governance are democratically problematic, because they undermine political equality, and the transparency of governance processes that makes it possible for the public to control and hold political decision-makers to account (Hansen, 2007; Papadopolous, 2007; Bexell and Morth, 2010). Others claim that interactive forms of governance give a new life to a disenfranchised representative democracy because they provide new arenas for empowered participation on the output side for the political system (Fung and Wright, 2003; Warren, 2009).” (Peters, et al., 2012: 186)

So, one immediate question to ask is: what are the conditions or factors that tilt socio-political governance arrangements towards one way or the other? Consequently, the complex relationship between socio-political governance and democracy has urged scholars to develop useful frameworks to study their democratic performance in a systematic way, turning also onto specific empirical case studies in an attempt to offer useful information for policy recommendations. Accordingly, one place to start in this endeavour is by stating in clear terms the tension between socio-political governance *vis à vis democracy*. In the literature it is possible then to find four main positions about the relationship between governance processes and democracy (Klijn and Skelcher, 2007).

1.7.1. Some Positions and Pathways to Assess the Democratic Performance of Socio-political Governance Arrangements

There are various positions that explain the relationship between socio-political governance and democracy. The first one is an ‘incompatible position’, whereby governance is considered incompatible with liberal representative democracy, because the authority of the State is hollowed-out by governance contexts that, to

³⁷ L. Whitehead, an important scholar specialised in democratic theory, has the same opinion of democracy. For him democracy is an open-ended project, subject to a process of social construction, and full of continuous tensions that make for its quality and performance. Please see Whitehead, L. (2002), *Democratization: Theory and Experience*, Oxford, U.K., Oxford University Press.

make things worse, are frequently captured by powerful interests and so produce a range of democratic deficits. The second one is a 'complementary position', whereby governance arrangements can be considered to co-exist with traditional liberal democratic practices; as they help to further democratic practice based on traditional forms of accountability. The third is a 'transition position' that considers that governance arrangements offer greater flexibility and efficiency, and so they might gradually replace representative democracy as the dominant model of decision-making and representation. Finally, an 'instrumental position', that perceives socio-political governance arrangements as a means to provide for traditional government institutions to increase their democratic –or autocratic control– over increasing differentiated and complex polities. From the above argumentation it is possible to see that the second and fourth positions could be said to consider socio-political governance arrangements and traditional democratic institutions as complementary, while position one and three may be considered as oppositional (Klijn and Skelcher, 2007; Hans Klijn, 2011; Peters et al., 2012).

These four positions manifest potential scenarios that need to be investigated through the thorough application of consistent frameworks over empirical case study investigations. Scholars in the field of governance studies are working towards the development of analytical frameworks or pathways to study the democratic performance of governance strategies and arrangements (Klijn and Skelcher, 2007; Torfing and Triantafyllou, 2011; Klijn, 2011; Peters et al., 2012). They are doing so through the engagement with different notions of democratic theory and different theories of democracy in an attempt to identify the ways to assess their democratic performance (i.e. democratic effects). In this research quest the efforts have been oriented at defining some form of democratic criteria (e.g. through the development of a set 'ideal type' range of democratic conditions, democratic tensions, and a range of potential democratic effects) through which to assess the democratic performance of socio-political governance arrangements.

An interesting example of scholarly efforts to develop some form of analytical pathways to support the analysis of socio-political governance institutional forms is the one presented recently by Torfing, Pierre, Peters and Sorensen (2012). The criterion used is based on the notion of 'democratic anchorage'. According to them the basic idea behind the notion of democratic anchorage depends on determining the degree to which a socio-political governance arrangement is anchored to a

number of relevant territorially or functionally demarcated political constituencies and set of rules for democratic interaction that render them democratic legitimacy. As such in order for a socio-political governance arrangement to be assessed positively in terms of democratic performance it should be: democratically anchored to elected politicians –therefore, asking questions regarding to what extent democratically elected politicians steer socio-political governance arrangements and hold them accountable to official policy objectives and normative commitments–; democratically anchored to a membership basis of participating groups and organisations –that is to examine to what extent socio-political governance arrangements are inclusive and representative of all stakeholders–; democratically anchored to a territorially defined citizenry –that is to establish to what extent policy outputs and outcomes of governance contexts are transparent and accountable to affected citizens–; and finally, democratically anchored to democratic rules and norms –that is to determine to what extent democratic principles of inclusion, deliberation, representation, and democratic innovation are upheld by the socio-political governance arrangement.

E. H. Klijn (2011) is another scholar that offers a framework to analyse the democratic performance of socio-political governance arrangement. He begins by distinguishing three basic sources of democratic legitimacy: accountability –referring to the existence of effective procedures and rules to hold officers accountable to an external authority and the citizenry–; voice –referring to the existence of effective procedures and rule that grant voice and influence to stakeholders in decision-making-; and due deliberation –referring to notion that democracy is strong as long as the source of democratic legitimacy rests in public deliberation processes. After establishing this initial ‘sources of legitimacy’ he suggests that to analyse the democratic performance of socio-political governance arrangements it is necessary to cross this criterion with another parameter represented by three types of democratic legitimacy (i.e. input, throughput and output democracy). Accordingly, this framework helps to ask research questions such as for example: who is accountable for the process to come to decisions –accountability/input legitimacy –; how is feedback arranged in the process between process interactions and the actors that are accountable –accountability/throughput legitimacy –; and who is accountable for the final decision –accountability/output legitimacy? With this, E.H. Klijn (2011) goes further the study of the democratic performance of socio-political governance institutional forms.

It is possible to consider from the previous efforts to build analytical pathways to study the democratic performance of socio-political governance arrangements, that researchers are making attempts to innovate with different tools at their disposal, and stemming from progress made in the field of democratic theory. This innovation is based in the recognition that traditional tools or ways to analyse the democratic performance of, for example, government institutions or hierarchical governing arrangements are not really suitable for the analysis of the democratic performance of socio-political governance arrangements. Thus, it is necessary to innovate and this PhD makes an attempt to contribute to this process of scholarly research in this matter by engaging with the associative and deliberative democratic theories.

1.7.2. Associative and Deliberative Democratic Theories: Two Theoretical Pathways to Study the Democratic Performance of Socio-political Governance Arrangements

The present PhD research investigation represents an attempt to further the research on the democratic performance of socio-political governance arrangements and proposes that by engaging with the associative and deliberative theories of democracy a better understanding may be developed, and by way of establishing a range of potential democratic effects that will help to understand their prospects and challenges, and also the preconditions that seem to affect this performance. This assumption results from the consideration that socio-political governance arrangements deeply rely on the purposeful associative and deliberative activity of stakeholders in a polity, and both democratic theories are equipped to scrutinise these activities.

Consequently, one moment of analysis of the heuristic-analytical device will be supporting the study of the democratic performance of socio-political governance arrangements and backed by the associative and deliberative democratic theories. This analytical device will then be deployed to study the democratic performance (i.e. the democratic effects) of MSPs for groundwater management in the Mexican water polity. The next chapter will elaborate in detail on these considerations.

1.8. The State's Meta-governance Strategies and Capacities

As already established, arguments about the rise of the 'governance notion' are closely connected to those of the process of State-transformation in the development of new strategies, structures and processes to address complex policy problems and

govern polities under a new governing context. More recently, after several year of evolution –tainted with some form of disenchantment or concern with the limited outcomes of socio-political governance arrangements–, the governance concourse is currently engaging more consistently with the study of the necessary State capabilities –strategies and capacities– to exercise a better governing role over socio-political governance arrangements, and in order to foster their governability. As such the aforementioned scholarly concerns are presently manifested and being addressed through the rise of the ‘meta-governance notion’. Pierre et al., (2012) comment on this:

“However, interactive forms of governance do not emerge spontaneously but are often facilitated, initiated and even designed by public authorities. In addition, the interactive governance arrangements might fail to produce effective and legitimate ideas and solutions. Finally, elected governments must impose some kind of direction on the interactive policy processes in order to realise their overall objectives, enhance pluri-centric coordination and policy alignment and ensure democratic accountability. Hence, the attempts of governments at multiple levels to reap the fruits of governance call for reflexive and strategic meta-governance.” (Torfing, Peters, Pierre and Sorensen, 2012: 122)

The concept of meta-governance is a relatively recent invention and its definition is still a work in progress. Consequently, scholars are currently making efforts to continue to establish a coherent meaning, to propose its analytical usefulness in the field of governance studies, and to deploy its analytical leverage in empirical research (Jessop 2004, 2007; Sorensen, Bell and Park, 2006; Meuleman, 2008; Hindmoor and Bell, 2009; Peters, 2010; Torfing and Triantafillou, 2011, and Peters et al. 2012). For example, Peters (2010) considers that scholarly efforts in the field of governance studies have done a reasonably good job in defining the ‘meta-governance notion’, but the discussion on the instruments and mechanisms necessary to foster it is still very much an abstract, open and contested debate. Therefore, it seems important to further the understanding of what meta-governance could be, not only in theoretical terms, but also through real-life empirical situations. What follows is a simple elaboration on the development of the meta-governance notion. This elaboration will help later to design the fifth moment of analysis of the heuristic analytical device that will support the Mexican State water institution’s meta-governance strategies assessment.

Perhaps Kickert, Klijn and Koppenjan (1997) were the first scholars to begin to address the need for the State to manage governance contexts; although in their

particular case their focus was on the elaboration of 'State network management strategies' to steer policy networks, and they did not use at that time the term meta-governance. Still, their work on 'network management' is fully imbued with spirit of the 'meta-governance notion', and is worth including as part of meta-governance debate. Accordingly, network management, as a meta-governance strategy comprises the following actions: network activation (i.e. initiating interaction amongst relevant stakeholders to address a collective action problem), arranging interaction (i.e. providing the necessary formal and informal mechanisms to organise a positive and purposeful interaction amongst stakeholder), facilitating interaction (i.e. involves creating the conditions for the favourable development of strategic consensus and developing conflict resolution and brokering mechanisms) and network structuring (i.e. involves influencing policy environments to support networks, influencing the interrelationship between network members, influencing values, norms and perceptions, and mobilising new coalitions).

Jessop (2002, 2004) was also one of the first scholars to begin to address governing failures over socio-political governance institutional forms, and to suggest that in light of the widespread use of governance strategies, there was a need to strengthen the role of the State in governing governance arrangements through meta-governance practices. For him the State is in the best position to exercise this role (Jessop, 2004). As such, the concept of meta-governance can be best understood, at a strategic level, as the promotion of a shared vision oriented at governance arrangements so that the activities of different social actors may be promoted in a complementary manner. Very importantly, for Jessop, meta-governance is also about shaping the contexts in which governance contexts are embedded, developing strategies for helping them further their objectives. Jessop (2004) considers that meta-governance should be aimed at: providing the ground rules for socio-political governance arrangements; ensuring the compatibility of different governing mechanisms, mainly by establishing a monopoly of organisational intelligence to shape cognitive expectations; becoming the last instance of conflict resolution when conflict arises between stakeholders; balancing power imbalances to secure democratic outcomes; developing the capacity for interactive and dynamic learning; building methods for coordinating actors, with different identities, interests and systems of meaning and that act according to different spatial-temporal horizons and domains; and establishing a common worldview to coordinate individual action.

Another systematic approach to the study of meta-governance is the one furthered by Meuleman (2008, 2011). Meuleman's approach appears less theoretically oriented and more grounded than the ones deployed by Kooiman (2003) and Jessop (2004). For him meta-governance has been driven by the practical concern to design strategies to reconcile conflicts between the three distinctive modes of governance: hierarchies, markets and networks. Accordingly, meta-governance is an activity or practice positioned above the aforementioned modes of governance in an attempt to avoid the negative impacts of lack of coordination and to enable the potential synergies between them. Meuleman (2008, 2011) emphasises that the concept of meta-governance has been applied to contexts of network governance, considering meta-governance as an indirect form of top-down governing practice that is exercised by influencing self-governance and co-governance regimes through various forms of coordination such as framing, facilitation and negotiation. He then proposes the following definition for meta-governance:

“Meta-governance is a means by which to produce some degree of coordinated governance, by designing and managing sound combinations of hierarchical, market and network governance, to achieve the best possible outcomes from the viewpoint of those responsible for the performance of public sector organisations: public managers as ‘meta-governors.’” (Meuleman, 2008: 68)

Meuleman goes on to develop several functions that should be fulfilled by the State as part of its meta-governance activities: providing and guaranteeing the constitutional legal framework for private self-regulation; providing the ‘shadow of hierarchy’ to keep self-regulation and cooperation geared toward the general good; authorising participatory claims of private actors; taking part in providing a normative environment and therefore the legitimacy to goals of private actors; supporting the monitoring of self-regulation; and avoiding the negative externalities by linking the different sectorial self-regulation efforts with each other.

According to Bell and Hindmoor (2009), under their State centric-relational approach, the “resilient State” is responding to the coordination and sovereignty challenges imposed by socio-political governance arrangements by developing meta-governance measures. Consequently, they consider the notion of meta-governance to refer to the specific governing practices and procedures necessary to secure government influence and control over socio-political governance institutional forms. Accordingly, meta-governance is basically defined in terms of six central State functions: steering (i.e. involving the strategic management of processes, goal-setting, coordination of actions and relationships between stakeholders and the

strategic selection of modes of governance to deploy in different settings), effectiveness (i.e. involves establishing evaluative criteria relevant to the goals and activities performed by socio-political governance institutional forms; resourcing (i.e. involves establishing the proper financial, technical, authority, information resources for socio-political governance arrangements to further their mandates and objectives); democracy (i.e. involves ensuring that democratic principles are upheld through broad participation, legitimate representation, and democratic decision making); accountability (i.e. involves establishing clear principles and lines of responsibility, responsiveness and control), and, finally, legitimacy (i.e. involves the establishment and upholding of certain normative criteria that lay the bases for such legitimacy like fairness, equity, effectiveness, etc.

Lastly, for Peters (2010), the challenge of meta-governance is to ascertain the coordination and steering capacities of the state in 'governance contexts', but without depleting such contexts of their virtues as decentralised, devolved and participatory sites. Accordingly, he contemplates that meta-governance should respond to four major challenges: the enablement of effective, efficient and democratic decision-making processes; the due care for a broad and inclusive participation, and legitimate representation; the development of effective coordination and steering capabilities; and the establishment of functional accountability mechanisms (Peters, 2010).

The above elaborations represent some of the most important discussions regarding the meta-governance notion. Some of these ideas seem to be more straightforward and less abstract than others, and many authors concur on the nature and orientation of meta-governance. This presentation of the different meta-governance strategies will again serve to support the design of heuristic analytical device (chapter 4), to later identify and assess the Mexican State's meta-governance strategies and capacities over the MSPs for groundwater management.

1.9. End Comments to this Chapter: Summarising the *Explanadum*

Socio-political governance studies seek to investigate the governance phenomenon, manifested as processes of State-transformation oriented at modifying the relationship between the State and society in order to enable greater democratic social participation/involvement and stakeholder cooperation throughout the governing process. There are three distinct governance approaches to study this phenomenon, the society centred, the State centric, and its corollary the State

centric-relational approach. The State centric-relational approach focuses on processes of State-transformation, the establishment and institutional development of socio-political governance arrangements, and the role of the State in the meta-governance of such arrangements oriented at governing over them, and also at supporting their institutional development. This doctoral research attempts a state-centric-relational governance approach to the study of the Neo-liberal process of State-transformation in the Mexican water polity, and the establishment of socio-political governance arrangements, the MSPs for groundwater resources management; COTAS.

As such, the Mexican polity started an important and deeply rooted process of State-transformation commencing in the mid 1980's, and as part of a broader political process oriented at consolidating a new Neo-liberal Statehood formation, after many decades of existence of a Developmental-Interventionist Statehood one. In the context of the water polity, this process entailed the design of a new State-project and the implementation a number of State-strategies oriented at substantially modifying the relationship between the State and civil society in the pursuit of sustainable water resources management, water supply and sanitation, and water security. What happened and how can this process be explained?

A central Neoliberal State-strategy in the Mexican water polity was the establishment of socio-political governance arrangements, the MSPs for water resources management at the river basin, micro basin and aquifer level. The MSPs for groundwater management, the COTAS, were established to enable greater social participation/involvement and stakeholder cooperation to address severe groundwater resources over-exploitation. What has happened with these MSPs for groundwater management, have they contributed to address groundwater management challenges? Have they contributed to harnessing greater social participation and stakeholder involvement? What has been the role of the State in their institutional development?

The more critical governance scholars consider that there are two potential faces to the governance phenomenon, as socio-political governance arrangements can be sources of greater social participation/ involvement and stakeholder cooperation – being in this sense, potential sources of democratic renewal–, but they can also turn into institutional venues that only reproduce –and even amplify– socio-political relations of power, domination and exclusion. Through the support of the theoretical

developments presented in the next chapter on associative and deliberative democratic theory, this doctoral research will also attempt to study the democratic performance of the MSPs for groundwater management in the Mexican water polity. Are they sources of democratisation of the local water polity or are they sources of democratic deficit?

Again critical scholars have also highlighted that frequently the role of the State in the institutional development of socio-political governance arrangements has been hindering and limiting, and that power relations also affected them negatively. This doctoral research is also interested in studying this situation, and will determine through the use of the theoretical power developed in this chapter, the role of the Mexican state in the establishment and institutional development of the MSPs for groundwater management. Accordingly, it will also assess its meta-governing strategies and capacities in terms of the institutional development of the MSPs.

Chapter 2. The Associative and Deliberative Democratic Theories: A Pathway to Study the Democratic Performance of Socio-political Governance Arrangements: *The First Moment of Analysis (Continuation)*

2.1. Introduction

This chapter will engage with the associative and deliberative democratic theories in order to support the design of the fourth moment of analysis of the heuristic-theoretical device to be used for the study of socio-political governance arrangements. The rationale behind this endeavour is that from both theories it is possible to extract some analytical elements or dimensions that may later be used to assess the democratic performance of socio-political governance arrangements (i.e. to establish the analytical orientation and research content of the fourth moment of analysis of the heuristic-analytical device). Both democratic theories represent reformist political projects that seek to further the democratisation of contemporary liberal democratic polities by actively supporting and enhancing the associative and deliberative activity in society (Hirst, 1994; Dryzek, 2000). According to both theories, a more robust, intense and regulated associative and deliberative activity in the context of formal and informal institutional venues would have a range of positive democratic effects (e.g. legislatures, State institutions, socio-political governance arrangements, voluntary organisations, etc.). These democratic effects besides themselves being a positive political outcome, in turn, benefit the pursuit of public policy goals and help address contemporary governing challenges (Fung, 2003; Smith, 2003).³⁸ More on these aspects will be developed in the next sections of this document.

In order to fulfil the objective of designing this moment of analysis to assess the democratic performance of socio-political governance arrangements this chapter will identify a range of 'potential democratic effects' and by revisiting the associative and deliberative democratic theories. These democratic effects somehow represent the associative and deliberative democratic scholars' theoretical and normative hopes and aspirations, outcomes of this associative and deliberative activity taking place in

³⁸ For example, the linkages between associative and deliberative democratic practice and environmental protection have attracted the attention for some time now. The debate is extensive, but for some scholars there seems to be direct relationship between democracy and better environmental protection. Some interesting readings on this topic are: Lafferty, W. and J. Meadowcroft (1996), *Democracy and the Environment*, Cheltenham, UK, Edward Elgar; Smith, G. (2003), *Deliberative Democracy and the Environment*, London, UK, Routledge; and, Backerstrand, K, Khan, K, Kronsell, A and E Lovbrand, (2010) *Environmental Politics and Deliberative Democracy*, Cheltenham, UK, Edward Elgar.

the context of diverse institutional venues –that in the case of this PhD are represented by a socio-political governance arrangement (i.e. the MSPs for groundwater management). This range of potential democratic effects together represent a form of an ‘ideal type’ democratic polity, that is that they depict ‘how things should be’ from the standpoint of a normative and prescriptive democratic criteria. Accordingly, a well functioning democratic socio-political governance arrangement would be able to reproduce these democratic effects and by way of embedding into its institutional design a range of features oriented at safeguarding democratic principles and at producing democratic effects, a situation that brings immediately into focus the study of the interaction between the necessary institutional design features and enabling/hindering contextual-background conditions.³⁹

In this sense, it is also relevant to highlight that the term ‘potential’ is used purposefully, as democratic scholars are clear that the potential democratic effects of associative and deliberative activity are contingent to such institutional design features and contextual conditions (i.e. preconditions for associative and deliberative activities), and that mainly have to do with the capacity of such socio-political governance arrangements to face the democratic challenges and opportunities imposed by these contextual conditions. In this sense, efforts will also be made to unravel what institutional design features and contextual background conditions seem to have a stronger and more direct bearing in the democratic performance of socio-political governance arrangements. Also, scholars consider that the attainment of these democratic effects has in itself a positive feedback loop, as the attainment of these effects supports, through the passage of time, the furthering of democratisation processes.⁴⁰ Can these be the case of the MSPs for groundwater management?

³⁹ The “ideal type” is a methodological tool used by sociologists and political scientists, and developed to a comprehensive level by Marx Weber. According to Weber and ideal type is a formalised model of how things are supposed to be from the standpoint of a normative or prescriptive criterion. Consequently, ideal types serve for the following research objectives: to identify a research object, a social phenomenon that one wants to understand; to build a formal model of how things are supposed to work within the context of the phenomenon studied; to measure the difference between what happens and what should happen –according to that normative or prescriptive criterion–; and to analyse the causal relation between the phenomenon studied and the suppose change in social reality. On this please see: Collins, R. (1994), *Four Sociological Traditions: Selected Readings*, Oxford, U.K, Oxford University Press.

⁴⁰ L. Whitehead (2002), a leading scholar on democratisation processes, points out to the need for political systems to have positive feedback loops that enable a constant democratisation processes, as when and if democracy stands still undemocratic forces start to gain terrain. On this please see: Whitehead, L. (2002), *Democratization: Theory and Experience*, Oxford, UK, Oxford University Press.

It is worth highlighting that in real case scenarios not all the potential democratic effects will be achieved 'evenly'. In certain cases some effects will be achieved to a greater level or extent than others. Scholars consider that this situation seems to depend on the nature and orientation of the institutional setting in which associative and deliberative activity takes place, as some settings will have a stronger inclination, for example, to pursue developmental effects over say institutional and public sphere effects (Warren, 2001, Fung, 2003). So each institutional setting should be assessed in its own terms. Still, this is not to say that comparative exercises cannot be pursued, as it may be possible to assess the attainment of democratic effects of homologous institutional settings, identifying the differentials in their attainment and the difference in the preconditions that have made the difference. In this sense it is possible to assess what type of effect was more greatly achieved by the Laguna-Seca COTAS.

To provide some form of organisation in the presentation of these potential democratic effects of associative and deliberative activity, this chapter will engage in their characterisation. This characterisation will rely on the work produced by associative democratic scholars (Cohen and Rogers, 1995; Warren 2001, 2004; Fung and Wright 2003; Fung, 2009) and deliberative democratic scholars (Elster, 1998; Bohman, 2000, Backstrand, 2010; Dryzek, 2012). The work produced by these scholars is perhaps amongst the most thorough and systematic on the subject matter. It is also important to acknowledge that the debate on the potential democratic effects of associative and deliberative activity is very comprehensive and rich, and the following presentation is only an attempt to simply portray the most salient features of this debate, to later enable the development of a heuristic-analytical device for the study of the democratic performance of socio-political governance arrangements.⁴¹

In an attempt to characterise the potential democratic effects of associative and deliberative activity, scholars have identified three main democratisation pathways through which the potential democratic effects may manifest. These pathways are the potential developmental effects, public sphere effects and institutional effects (Warren, 2001). Accordingly, developmental effects, in principle, may be attained by

⁴¹ For a more philosophical engagement with this aspect please see: Ellen M. Immergut, 'An Institutional Critique of Associative Democracy', in J. Cohen and Rogers (eds.), *Associations and Democracy* (London, Verso, 1996), pp.193-200, and, Steiner, J (2012), *Foundations of Deliberative Democracy, Empirical Research and Normative Implications*, Cambridge, UK, Cambridge University Press.

the manner in which associative and deliberative activity contributes to forming, enhancing and supporting the development of certain citizens' capacities. These capacities are mainly related to political education and other citizen skills that enable citizens to actively and fruitfully engage in governing processes, and more particularly in the context of socio-political governance arrangements where the State and other stakeholders participate together. On this, it is possible to reflect that MSPs should be capable, in principle, of producing this form of developmental effects and so the research interest is to assess the 'level' in the attainment of such, as already mentioned.

The public sphere effects refer to the manner in which associative and deliberative activity contributes to the enablement of deliberative arenas where democratic public deliberation on matters of common concern and policy relevance are discussed between stakeholders. These deliberative arenas in the case of the socio-political governance arrangements should be oriented at enabling open dialogue between stakeholders, at enabling decision-making based on consensus-formation and at providing contexts for a transparent and legitimate alternative conflict resolution. It is important to emphasize that MSPs for water resources management have at their centre some form of deliberative arena that enables public deliberation processes between different water users, other stakeholders, and the State. Consequently, efforts will be made to try to determine the attainment of public sphere effects and the quality of the deliberative arena in the context of the MSPs for groundwater management in Mexico, and more specifically the Laguna-Seca COTAS.

Lastly, the institutional effects refer to the manner in which associative and deliberative activity contribute to the support of keener political representation, political equality, and social equity. Very importantly, another institutional effect is to become alternative institutional settings for socio-political governance, that functionally support political representation, political equality and social equity. In this case, it is relevant then to make attempts to determine the institutional effects of MSPs for groundwater management, ultimately learning if they are functional vessels for socio-political governance.

Another important aspect of this debate is that associative and deliberative democratic scholars acknowledge that there are two other important aspects relative to the attainment of these democratic effects, the preconditions for associative and deliberative activity, including: the necessary or 'ideal' institutional design features to

support the pursuit of such democratic effects and the background contextual conditions that also have a bearing in the outcomes of such pursuit. So when studying the democratic effects of associative and deliberative activity, it is also necessary to look at the interaction between institutional features and contextual conditions, thus indeed following a Historical Institutionalist approach. In this sense associative and deliberative democratic scholars highlight that in order to have positive democratic effects, there should be a functional match or fit between the characteristics of background contextual conditions and the institutional design features. So for example, in contexts characterised by harsh political or social inequalities, the institutional design features should pay particular attention to address them; and so forth (Fung and Wright, 2003).

The rest of this chapter is divided in four main sections. The first section presents the main tenets of the associative democratic theory and its potential democratic effects. It will also elaborate on some important preconditions that are necessary to enable socio-political governance arrangements to attain these effects. The second section will perform the same tasks for the deliberative democratic theory. The last section presents some end comments to this chapter.

2.2. Associative Democratic Theory

2.2.1. Main Tenets of Associative Democracy

Associative democracy is a democratic theory with a rich theoretical evolution that stretches back in time. According to scholars the roots of associative democracy stem from a form of 'associationalism' developed in the 19th century with important influences from English advocates of industrial and social cooperation, English political pluralism and guild socialism, as well as some French and German ideas of corporatism (Taylor, 1982; Held, 1987; Keane, 1988; Matthew, 1989; Hirst, 1994). The first contemporary theoretical manifestations of associative democracy were developed in the second half of the 1980s and the beginning of the 1990s, asserting a strong criticism of the liberal democratic polities' entrenched centralisation of State power, the growth of the bureaucratic phenomenon and administrative rationalism, and the deepening of the individualist culture.⁴²

⁴² It is worth commenting that some of the criticisms developed by the associative and deliberative democrats regarding the characteristics and workings of contemporary political systems attune well with those made by governance scholars.

Associative democratic theory supports a broad political reform seeking to complement the liberal representative democratic model of decision-making, political representation and political legitimacy by altering the locus of power in the political system from State institutions and markets to civil society –that is to different institutional venues where civil society has a substantive role in decision-making and political participation (Fung and Wright, 2003). As a political project it seeks then greater decentralisation, subsidiarity, and devolution initiatives –at territorial and functional levels–, and by way of establishing different forms of institutions that open the governing process to the meaningful participation and empowerment of organised civil society (Hirst, 1994; Cohen and Rogers, 1995, Fung and Wright, 2003). Associative democrats give priority to individual freedom, but they also tend to emphasise the importance of ‘freedom of association’, as the individual citizen right to come together with other individuals to collectively express, promote, and pursue common interests throughout governing processes.

Associative democrats use a broad and abstract definition of associative activity (Cohen and Rogers, 1995). Associative activity is considered to be any form of voluntary activity performed by citizens who become members of an informal or formal organisational or institutional setting –considered as an associative space–, that helps them to build ‘thick attachments’, based on a goal oriented, face-to-face and frequent interaction for the pursuit of shared purposes and the furthering of particular objectives –including governing objectives (Cohen and Rogers, 1995; Warren, 2001). According to associative democrats, ‘associative spaces’ that bring different social actors together, distinguish themselves from hierarchies and markets –as two other governing modes– in that they gain their political legitimacy and authority from the inclusive participation of citizens and from decision-making processes that are firmly based on the establishment of decision-making mechanisms based on consensus-building and alternative conflict resolution mechanism –such as the case of MSPs (Fung and Wright, 2003). Associative democrats ultimately consider that purposeful associative activity in the context of formal and informal institutional settings can become a source for building alternative socio-political governance processes.⁴³

⁴³ The consideration regarding decision-making processes supported by public deliberation, consensus-building and alternative conflict resolution also impels to look into the workings of deliberative institutional designs and public deliberation processes that are at the heart of the deliberative democratic theory. Accordingly, an associative activity without a rich deliberative one may also harbour some potential democratic challenges. Interesting readings on the relationship between associative and deliberative democracy can be found in: Hirst, P. and V.

There are three central ideas to the associative democratic project. The first is that the State should actively support individuals in their pursuit or realisation of their citizenship rights for associative activity on matters concerning political life and governing processes (Cohen and Rogers, 1995, Warren, 2001). The second is that State should actively promote a rich and democratic associative activity by way of establishing institutional settings where this activity is promoted –like socio-political governance arrangements (Cohen and Rogers, 1995, Warren, 2001). Finally, that the State should also make efforts to ensure that the institutional settings where this associative activity takes place provide for accurate political representation, political equality, political legitimacy and social equity, thus actively steering these settings to pursue these democratic principles (Rogers and Cohen, 1995). Hirst (2002) reflects on some of these aspects regarding the role of the State in support of associative activity:

“Associationalists contend that there are in any complex and free society different versions of what the good life should be, and the task of the state is to help realise as many of these as possible, not to impose one of them. The state should perform its core functions of assuring public peace, adjudicating in clashes of norms and mobilising resources for public purposes. Unlike liberal doctrines that seek to limit the functions of the State and expand the scope of the market, associationalism seeks to expand the scope of democratic governance in civil society.” (Hirst, 2002: 409)

The ideas mentioned above serve well to support the need to consider the role of the State in supporting the establishment and development of socio-political governance arrangements. It is possible then to consider that in order for polities and socio-political governance arrangements to uphold democratic principles it is necessary for the State to actively support the establishment of socio-political governance arrangements; to actually support the associative activity of citizens in socio-political governance arrangements; and to exercise meta-governing strategies to support their democratic performance. In terms of the case study analysis, it could prove interesting then to study the meta-governing strategies and capacities of the Mexican State to support the associative activity in the context of the MSPs for groundwater management.

2.2.2. Potential Democratic Effects of Associative Activity

Advocates of associative democracy consider that a robust associative activity in a polity can make various sorts of substantial contributions to democracy, especially in contexts where the political system has failed to provide meaningful avenues for political representation and social participation, where the State has shown to have important limitations for addressing complex, interdependent and cross-cutting policy problems, and most importantly, where the unfettered market economy continues to produce increasing inequalities in the distribution of wealth and risk (Beck, 1986; 1995). On this, associative democrats assert that associative activity plays a central role in contemporary democratic polities by way of contributing to produce a range of democratic effects. Several scholars have made systematic efforts to study the potential democratic effects of associative activity, and so the debate is quite rich and extensive (Hirst, 1995; Immergut, 1995; Young, 1995; Warren, 2001, 2004), but for reasons of space, it will be summarised. Warren (2001) comments on the role of associative activity in the next short intervention:

“Any democratic system, but particularly one which politics has migrated beyond the state-centred venues, depends upon the multiple effects of associative activity –representation, public deliberation, a counterbalancing of powers, alternative forms of governance, the cultivation of political skills, and the formation of public opinion, just to name a few possibilities. Associative activity plays key roles at numerous points in what are new complex and multi-faceted political systems.” (Warren, 2001: 27)

The following sections of this document elaborate on the different types of democratic effects of associative activity, including developmental, public sphere and institutional effects.

2.2.2.1. Developmental Effects of Associative Activity

Associative activity supports two main developmental effects: the development of more comprehensive and shared views through information generation and socialisation, and the development of critical citizen skills and other forms of political education. These are explained below in more detail.

- *Development of more comprehensive and shared views through information generation and sharing*

Associative activity supports the generation and socialisation of useful information throughout the governing process. This is because stakeholders participating in purposeful associative activity are useful collectors, organisers and providers of relevant information that can be used for the diagnosis of policy challenges and for decision-making. It is generally the case, that stakeholders will usually have very valuable local knowledge, based on day-to-day experience and also historical facts and trends that usually escape the remit of technical experts, scientists and politicians. This information can contribute, through a process of public deliberation, in the development of more comprehensive, accurate and shared stakeholders' perspectives on relevant policy situations and trends that affect them. These aspects of information generation and socialisation may thus have also an important empowerment outcome (Cohen and Rogers, 1995, Warren, 2003, Smith, 2009). Cohen and Rogers (1995) reflect on this potential democratic effect:

“Associative activity can provide information to policy makers on member preferences, the impact of proposed legislation or the implementation of existing law. As the State has become more involved in regulating society and extended the reach of its regulation to more diverse sites, technically complex areas and processes subject to rapid change, this information function has arguably become more important (...) Because of the proximity to those effects, groups (stakeholders) are often well positioned to provide such information. When they do (provide information), such groups contribute to satisfying the norm of popular sovereignty, because good information improves citizen deliberation, facilitates the enforcement of decisions and clarifies the appropriate objects of state policy.” (Cohen and Rogers, 1995:42-43)

- *Development of Critical Citizen Skills and other Forms Political Education*

An important aspect included as part of the potential developmental effects of associative activity is the consideration that it can foster some form of development of critical skills and political education. In the context of this debate, critical skills are deemed extremely important because they allow stakeholders a more reflective and comprehensive understanding of the situation they are embedded in, and of the different perspectives or options that exist to meliorate it. Accordingly, it is through the interaction that stakeholders have in associative activity how they may learn –in more detail– about the different aspects surrounding such situation/problem they are embedded in, as well as on possible avenues to address it. By participating in associative activity stakeholders can be socialised into a ‘problem’ or ‘challenge’ and gain more knowledge about different aspects that previously had been unknown or

not considered (Warren, 2003; Smith, 2009). On this Warren (2001) develops the following idea:

“The opportunities to develop critical and cognitive skills are key to the possibility that participants in political processes will change their preferences in ways that are truer to their needs and are more likely to contribute to stable consensus, bargains, or coalitions because they know what they want. This possibility, however, is likely to occur only under rather specific conditions: what is needed is some degree of conflict under conditions that enable conflict to be resolved through associative and deliberative means.” (Warren, 2001: 75)

Associative activity is also deemed to play an important part in other aspects of citizens' political education. It is generally advocated by associative democratic scholars, that associative activity fosters the development of a range of citizen skills –like public speaking, self-presentation, negotiation, bargaining, and creative thinking (Hirst, 1994; 2002). Imagine then a group of individuals that have to decide upon which course of action they need to take to further the objectives of the MSP for water resources management they participate in. In order to arrive at such a decision, stakeholders are required to speak in public, present their ideas, negotiate and bargain over different interpretations of reality and viewpoints, and then value the merit of individual proposals to eventually arrive at the definition of a course of action. Accordingly, these interaction activities, if carried out regularly, may assist in the development of such citizen skills.⁴⁴

In perhaps more abstract terms associative democrats also consider that associative activity may conduce to the generation of civic virtues –such as respect, toleration, solidarity-unity, and cooperation (Warren, 2001, 2003). This is because associative activity may support the enablement of 'deliberative arenas' where inclusive and open deliberation takes place, and where in order to advance decision-making process stakeholders are required to be respectful and tolerant, to acknowledge interdependencies and to develop some form of collective purpose to enable cooperation between them. On these aspects Fung (2003) elaborates the following ideas:

⁴⁴ A number of scholars consider that citizenship dispositions can be cultivated by participating in associations. For example, green political theorists are very much interested in this virtuous relationship. On this topic interesting readings worth reviewing are: Doherty, B. and M. de Geus (eds.) (1996), *Democracy and Green Political Thought: Sustainability, Rights and Citizenship*, London, U.K, Routledge Editorial; Dobson A. and D. Bell (2005), *Environmental Citizenship*, Massachusetts, USA, MIT Press; and Smith, G., 'Green Citizenship and the Social Economy' *Environmental Politics*, Vol, 14, No.2, (2005), pp. 273-289.

“Of the hypothesized effects of association on democracy, the category that has received the most contemporary attention has concerned how associative activity affects the attitudes, skills, and behaviours of individuals in ways that benefit democracy. One version of this view focuses upon the attitudes and dispositions of citizens. In this view, associations inculcate civic virtues in their members. Such virtues include attention to the public good, habits of cooperation, toleration, respect for others, respect for the rule of law, willingness to participate in public life, self-confidence and efficacy (Warren, 2001:73). To the extent that individuals possess these values, democracy itself becomes more robust, fair, and effective in myriad of ways.” (Fung, 2003: 520)

2.2.2.2. Public Sphere Effects of Associative Activity

Associative democratic scholars consider that associative activity may enable the creation of purposeful public spheres that enable stakeholders to communicate between each other, develop more comprehensive views and pursue joint decision-making processes in deliberative arenas.

- *Creation of Public Spheres: Enabling Public Deliberation*

Associative activity may contribute to the creation of public spheres and deliberative arenas where citizens engage in public deliberation processes. This public deliberation processes are critical for sharing information, getting to know each other, developing a more comprehensive and shared perspective about a situation or governing challenge, support consensus-building and alternative conflict resolution, and, lastly, support the coordination and cooperation between stakeholders. A more through elaboration on this type of democratic effect will be developed in the next section of this chapter on deliberative democratic theory, a theory that focuses precisely on enabling public deliberation processes.

2.2.2.3. Institutional Effects of Associative Activity

Associative democratic scholars consider that associative activity may harbour the following institutional democratic effects: keener political representation and greater political equality between stakeholders; political legitimacy in decision-making; stakeholder cooperation and cooperation throughout governing processes; and ultimately the enablement of alternative forms of governance (Cohen and Rogers, 1995, Warren, 2001, 2003; Fung and Wright, 2003, Smith, 2006). The following sections provide a brief elaboration on these effects.

- *Keener Political Representation and Greater Political Equality and Social Equity*

According to scholars, associative activity is considered to have the capacity to improve political representation within polities and to favour the attainment of the democratic principle of political equality. This happens because through associative activity stakeholders can actually voice their views, clarify interests and preferences, and very importantly, contest perspectives in the context of institutional settings that in principle have a bearing over governing processes. This situation, in turn, may contribute to the pursuit of greater political equality. On this Fung (2003) develops:

“A fourth contribution of association to democratic governance is to improve ways in which interests are represented to lawmakers and translated into law and policy. Associative activity offer additional channels –beyond voting, lobbying and direct contact with public officials– for individuals to press their public concerns. Association can improve the quality of representation, and so the quality of democracy more broadly.” (Fung, 2003: 523)

In terms of the furthering political equality in polities, associative activity in the context of institutional settings is also considered to be able to assist disadvantaged and marginalised individuals and groups to participate in political processes, and thus provide them with better chances to influence decision-making processes that affect them directly. In this sense, it is suggested by associative democrats that associative activity might contribute to achieve better conditions of political equality and social equity in polities characterised by inequalities or outright exclusion. The following extract by Cohen and Rogers (1996) supports this view:

“Politics is materially conditioned and inequalities in material advantages of the sort definitive of capitalism translate directly to inequalities in political power. Groups can help remedy these inequalities by permitting individuals with lower per capita resources to pool those resources through organisation. In making the benefits of organisation available to those whose influence on policy is negligible without it, groups help to satisfy the norm of political equality. Similarly, groups can promote a more equitable distribution of advantage by correcting for imbalances in bargaining power that follow from unequal control of wealth. Groups can also represent interests not best organised through territorial politics based on majority rule. (...) Here, groups improve an imperfect system of interest representation by making it more fine-grained, attentive of preference intensities and representative of diverse views.” (Cohen and Rogers, 1996:43)

- *Political Legitimacy*

Another important potential democratic effect of associative activity is political legitimacy. Accordingly, if associative activity is carried in such a way so as to enable inclusive political representation and provides for political equality in decision-making processes and social equity in policy outcomes, it also renders political legitimacy. Political legitimacy is of great concern, especially if the associative activity takes place in the context of an institutional setting that can turn into an alternative source of socio-political governance. On this Warren (2001) also comments in the following paragraph:

“When political processes are legitimate, they stabilise political conflict in ways that keep democratic processes open and fluid without producing uncertainties so severe that they would undermine the system as a whole. So a second possibility is that democratic legitimacy is enhanced if associative activity enables citizens to have equal chances to influence outcomes, even, if they do not get their way. The opportunity to seek influence, even if it fails or is only partially effective, can nonetheless provide legitimacy for both processes and outcomes.” (Warren 2001: 92)

- *Negotiated Coordination and Cooperation throughout Governing Processes*

Associative activity has the potential for enabling effective coordination and cooperation amongst stakeholders participating throughout the governing process, in certain cases even more so than State-hierarchies and markets. Accordingly, associative activity can support the pooling of resources and the synergies to engage in coordination and cooperation exercises. Similarly, it is through associative activity that politicians or civil servants may boost initiatives and achieve greater synergies and collective action in complex policy environments. Cooperation may be at different levels, from only gaining relevant information to supporting authentic joint decision-making and implementation processes. Accordingly, it is possible to consider that the greater the achievements in terms of the developmental, public sphere and institutional effects of an associative activity, the greater the possibilities for coordination and cooperation throughout the policy-making process.⁴⁵ On this Warren (2001) develops the following ideas:

⁴⁵ It is important to emphasise that the coordination and cooperation potential of an association depends greatly on the type of state-civil society relationships, a point that will be addressed later in this chapter when discussing the preconditions for associative activity.

“It is often assumed that associative activity can do better at resolving conflict than can formal political institutions. In part because of the scale and complexity of many problems today, and in part because of the pluralism of forces and interests that bear on most problems, collective decisions and actions require negotiated coordination among a multitude of groups, each with different resources and often with different interests, identities and values. Owing to these characteristics, many areas of policy have become difficult to manage and administer on the bureaucratic model favoured by the state, while market solutions cannot respond to political demands.” (Warren, 2001: 89)

- *Alternative Forms of Governance and Resistance*

Finally, associative activity in the context of formal institutional setting –such as socio-political governance arrangements– may support the development of alternative form of governance –other than hierarchies and markets (Warren, 2001, 2003). Accordingly, associative activity can help to formulate, implement and monitor policies and projects. Associative activity can also support the enablement of self-regulation. Warren (2001) elaborates on this situation:

“The idea that associations can and often do serve as social infrastructure of subsidiarity is central to the emerging school of associative democrats, as well as others who have come to view associative activity as means of restoring the radical meaning of self-governance. Associations can provide alternative structures of governance, which can in turn provide more opportunities for participation and responsiveness. The possibilities are attractive because of the apparent limits to state-centred administration which, by its very nature, tends to be inflexible and sometimes arbitrary.” (Warren, 2001: 88)

Resistance to domination and antidemocratic polities has long been thought a central contribution of associative activity. This is because organised associative activity can potentially become a source of “countervailing power” (Galbraith, 1952; Fung, 2003) against State-authority and other powerful interests. The idea behind this countervailing power is that associative activity can actually help to confront and equalise against colluded and entrenched political and economic interests. This is particularly important when considering the forms of power active in the context of socio-political governance arrangements, as elaborated in the previous chapter of this document (Warren, 2003). After these elaboration on the potential democratic effects of associative activity, I now turn to elaborate on the enabling preconditions for such activity.

2.2.3. Preconditions for Associative Activity

What follows then is an attempt to work out a simple characterisation of the preconditions for a robust and democratic associative activity, including the institutional design features to support associative activity and the background-contextual conditions that affect associative activity.

2.2.3.1. Institutional Design Features to Support Associative Activity

The following section elaborates on some of the most important institutional design features that scholars consider supporting of democratic associative activity, including: provisions for broad stakeholder participation and internal and external democracy,

- *Broad Stakeholder Participation and Interest Pursuit: Balance between Inclusion and Requisite Exclusion*

Associative democrats recognise that one important condition for associative activity to be able to support democratic effects is for institutional design features to take care of being inclusive and representative of a wide variety of stakeholders and interests. Accordingly, if there is broad stakeholder participation in the institutional setting with a concrete level of decision making powers and influence, and representing a diverse range of interests, it is also possible to conceive that there is also an acceptable level of political legitimacy (Fung and Wright, 2003; Smith, 2006).

Still, the debate does not end there, as they are also concerns for balancing broad stakeholder and interest inclusion with functionality and efficiency criteria. This consideration is based in empirical evidence pointing out to situations when overly inclusive stakeholder participation and interest representation may complicate consensus-building processes and stall decision-making; compromising functionality and efficiency, perhaps also generating stalemate in governing processes. Immergut (1996) comments on some of these aspects:

“These conditions, however, imply some limits on the inclusiveness of associative democracy –both in terms of the number and the range of groups that are included and in terms of the scope of the issues that such associations can consider. [...] Moreover, even the representation of a wide variety of groups is problematic. Aside from the risks that more people you include, the harder it is to reach agreement, the inclusion of too many groups may overburden the

negotiations by widening the agenda to include conflicts that are extremely difficult to reconcile. [...] Attention needs to be paid to the impact of political and institutional frameworks on these procedures for interest negotiation and to the difficulties of balancing democratic concerns for broad representation with pragmatic considerations about effective negotiation.” (Immergut, 1996:206)

- *Internal and External Democracy: Accountability, Responsiveness and Transparency*

Another important institutional condition affecting the democratic performance of associative activity has to do with internal and external democracy; that is with the capacity that an association has to be accountable and responsive to its members as well as to the authorities. For Bader (1996) the disjunction of an association’s leadership’s interests to that of its members and the State is perhaps one of the most difficult challenges of associative democracy. Accordingly, for example, an important aspect of internal democracy has to do with the centralisation of decision-making power in whatever leadership and representative structure exists, without taking due care for accountability, responsiveness, and transparency criteria.

Another very important aspect related to the internal democracy of associative activity is related with transparency and the equal access to information on behalf of all participant-members. Consequently, an associative activity should take of establishing institutional design principles safeguarding transparency and access to information for all stakeholders. Associative activity also rests in a robust public sphere where the process of public deliberation also supports the pursuit of accountability, responsiveness and transparency; aspects that will be explored in more detail later in this chapter.

The problem of external accountability is also paramount, especially if the associative activity involves some form of governing process. Therefore, associative democrats consider that it is necessary to cater also for external accountability mechanism, clear performance standards –in terms of its leadership and overall performance assessment–, and some form executive and legal oversight from part of the State (i.e. through meta-governance strategies).

2.2.3.2. Relevant Background Contextual Conditions

The viability of the democratic effects of associative activity relies deeply on the characteristics of particular contextual background conditions. Beyond the discussion

of the potential democratic effects of associative activity and the necessary institutional design features supporting such democratic effects, the debate on the contextual background conditions adds another source for important concern regarding the viability of associative activity to produce democratic effects. On this aspect Cohen and Rogers (1995) provide the following comment:

“Groups are, again, importantly artifactual. Their incidence, character and patterns of interaction are not merely the result of the tendencies to association among citizens with like preferences; they reflect structural features of the political economy in which they form, from distribution of wealth and income to the locus of policy-making in different areas. And they reflect variations across the members of that society along such dimensions as income, information, and density of interaction. Existing political institutions and culture may crystallise around certain structural features and patterns of variation along these dimensions. But those features and variations are in no sense natural: they are themselves in part the product of opportunities and incentives that are induced by the structure of political institutions and the substance of political choices and so can be changed through public policy.” (Cohen and Rogers, 1995: 46-47)

Cohen and Rogers intervention highlight a very important factor, the opportunities created by the State to support –or deter– associative activity. For them, the State is plays a key role in enabling associative activity of the sort that really is able to provide for democratic effects and participate in socio-political governance processes.

- *Relationship with the State: Level and Orientation of State Involvement, Decentralisation/Devolution and Empowerment*

Associative democratic scholars highlight that the potential democratic effects of associative activity critically depend on the decentralisation and devolution relationships between the State and civil society. Very importantly, associative democrats stress that the extent of decentralisation/devolution and also empowerment measures pursued by the State in a polity is of paramount relevance to really transform the polity and create alternative venues for socio-political governance. Fung and Wright (2003) elaborate on this important point:

“Since empowered associative governance targets problems and solicits participation localised in both issue and geographic space, its institutional reality requires the commensurate reorganisation of the State apparatus. It entails the administrative and political decentralisation/devolution of power to local action units –such as neighbourhood councils, personnel and individual workplaces, and delineated natural habitats– charged with devising and implementing solutions

and held accountable to performance criteria. The bodies in the reforms below are not merely advisory, but rather creatures of a transformed State endowed with substantial public authority.” (Fung and Wright, 2003: 20)

Associative democrats consider that a very important background contextual condition affecting the attainment of democratic effects is the type of relationships between the State and civil society. Accordingly, the premise is that a progressive State should be careful to foster a functional and democratic associative activity. In this sense, the State should seek to ensure that the efficiency and the potential democratic effects of association are safeguarded, through different steering, coordination and financial mechanisms –effectively through meta-governance strategies. So, in this case the level of State involvement in the support of associative activity is paramount to the achievement of the aforementioned potential democratic effects.

- *Political Equality and Social Equity*

Associative democrats place great importance on political equality and social equity as a fundamental condition for enabling associative activity to produce democratic effects. According to associative democrats, political equality does not only mean granting citizens a right to vote, but that all people should have broadly the same opportunity to meaningfully participate in politics and collective decision-making processes about issues that concern and affect them and their communities. More specifically, for associative democratic scholars, political equality refers to the opportunity to participate in associative activity oriented at participating and influencing the governing process. Consequently, they highlight that in contexts lacking political equality, certain groups or individuals lack the individual capacities and opportunities, as well as the support from the State to participate in associative activity. On these aspects Cohen and Rogers (1995) develop the following ideas:

“Finally, the strength and distribution of groups inevitably reflects such background conditions as the distribution of material resources, the proximity and density of interaction of membership with convergent interests and other familiar conditions of collective action, Underlying inequalities tend to translate into inequalities in group power. Systems of group representation vary in the degree of such background inequality, in the extent of translation into inequalities and, as a consequence, in policy outcomes.” (Cohen and Rogers: 1995 30)

Lastly, for associative democratic scholars, the social equity condition in the polity also has a bearing in the opportunity that people have in participating in associative spaces. Social equity implies fair access to livelihood, education, and resources; full participation in the political and cultural life of the community and self-determination in the meeting of fundamental needs. This composite condition allows people to have the time, the disposition, the education and the material resources not only to participate actively in associative activity, but to also have influence over decision-making processes. Accordingly, it is important to understand how social inequality affects the process of associative activity.

2.3. Deliberative Democratic Theory

2.3.1. Main Tenets of Deliberative Democracy

Deliberative democracy represents another interesting development in democratic theory. It is proposed as a reformist and critical approach, disapproving of the entrenched, limiting and inadequate decision-making and interest-representation mechanisms of liberal democracy. Its genesis stems from leftist political thinking and its concern over finding ways to strengthen government's efficiency and legitimacy through the enhancement of meaningful forms of citizen participation in political life (Barber, 1984; Bohman and Rehg, 1999, Chappell, 2012). In the late 1960s this sort of thinking started to question a number of key underlying assumptions of established theories of democracy, including elitism, pluralism and economic theories. Deliberative democratic scholars consider such theories to mostly understand politics in terms of conflict and competition between interest groups and elites, envisioning political actors only as rational actors and self-interested individuals left unchanged in their motivations and perspectives by the political process. This perspective, according to them, empties the notion of citizenship of part of its important meaning as an active, engaged and participatory political subject (i.e. citizens as individuals that may be influenced by being part of a broader political community, like historical institutionalism considers) (Weinstok and Kahane, 2010; Nabatchi, 2011). Deliberative democrats consider these democratic theories to place too much decision-making power in the hands of politicians and technical experts, thought to be better equipped than citizens to make all forms of public decisions in

the name of the 'public interest'.⁴⁶ J. Bohman and W. Rehg (1997), two of the first and most active deliberative democratic scholars comment on these aspects:

"These theorists (deliberative democratic theorists) question the key assumptions underlying the earlier economic and pluralist models: that politics should be understood mainly in terms of conflicting and competing interests, and thus in terms of bargaining than of public reason; that rational choice frameworks provide the sole model for rational decision-making; that legitimate government is minimalist, dedicated to the preservation of the negative liberty of atomic individuals; that democratic participation is reduced to voting and so on. In a more positive vein, deliberative democratic theorists took their cue from a variety of deliberative contexts and motifs: direct democracy, town-hall meetings and small organisations, workplace democracy, meditated forms of public reasoning among citizens, voluntary associations, and deliberative constitutional and judicial practices, regulating society as a whole, to name a few." (Bohman and Rehg, 1997: xii)

Deliberative democracy is also concerned with the capabilities of citizens themselves to recognise and oppose oppressive forces effectively, through an active and informed interaction and communication processes. This critical aspect of deliberative democracy has been driven by one important institutional objective, the integration of the ideas regarding 'communicative action' and 'instrumental rationality versus communicative rationality'. Proponents of deliberative democracy thus defend a complex ideal of a polity, whose common life is governed by the public deliberation of its members. On this J. Dryzek (2000) comments:

"Communicative action is oriented to understanding between individuals rather than success in achieving predefined individual goals. Communicative rationality is found to the degree that communicative action is free from coercion, deception, self-deception, strategizing and manipulation. Both forms of reason have their proper place in human affairs. The central problem of modern society to Habermas is that instrumental rationality has invaded and conquered realms where it does not belong, leading to the through scientisation, bureaucratisation and commercialisation of social life and politics. Thus the full potential of communicative rationality has not been realised." (Dryzek, 2000:22)

Deliberative democracy has at its core the commitment that political decision making and social choice should be the outcome of collective-public deliberation conducted rationally and fairly amongst free and equal citizens, participating in different types of deliberative arenas –such as citizen juries, cooperative regimes, multi-stakeholder

⁴⁶ Risk management has become one of such areas where everything is left to the expert and politicians. For an interesting exposition on the value of associative and deliberative democratic theories in the context of the risk society please see: Wouter Achterber, 'Association and Deliberation in the Risk Society: Two Faces of Ecological Democracy', *Critical Review of International Social and Political Philosophy*, Vol 4, Issue 1, (2001), pp.

platforms, and, more generally, the public sphere. Hence, deliberative democracy makes emphasis on the need to expand and strengthen citizen participation in such types of deliberative arenas (Saward, 2000; Hajer and Wagenaar, 2003; Elstub, 2008). As such, deliberative arenas are dynamic and evolving political sites, where authentic public deliberation may support –if the conditions are right– a number of democratic effects, including broadly speaking processes of democratic renewal and progressive socio-environmental change.⁴⁷ J. Bohman (1996) elaborates on the drivers of the deliberative democratic theory:

“Critics of current democratic institutions, ranging from communitarians to radical democrats, share a remarkably consistent set of themes. They argue that current arrangements undermine the most important principles of democracy: contemporary political practices are based on a politics of self-interest that produces social fragmentation, they permit an unequal distribution of social and economic power that persistently disadvantages the poor and the powerless, and they presuppose institutions that depend almost entirely upon merely aggregative, episodic, and inflexible forms of decision making and that leave deep structural problems of social and economic renewal unresolved. Out of all these diagnoses comes the same remedy: public deliberation.” (Bohman, 1996: 1)

It is relevant to highlight that deliberative democracy’s tenets are complementary with those of associative democracy and also socio-political governance, as they all support governing processes based on the participation and public deliberation of different stakeholders in deliberative arenas, similar to the ones enabled by socio-political governance arrangements. Indeed this is the case of the MSPs for groundwater management. As already mentioned, an important research task of this PhD is to consider how this process of public deliberation is enabled by MSPs for groundwater management and if indeed this process has positive democratic effects. As in the case of the associative democratic theory, it is also possible to identify in the case of deliberative democracy a range of potential democratic effects brought about by these public deliberation processes. The following is a succinct elaboration on some of the most important potential democratic effects of public deliberation. Again, the debate on these effects is extremely broad –perhaps even more so than is the

⁴⁷ Deliberative democratic theory has had an important influence over green political theory. The notion that public deliberation in arenas aimed at producing and implementing environmental policy making will increase the democratic legitimacy and also the efficacy of such measures is a recurrent theme within cotemporary green political theorising. For an extended debate on this please see Walter Baber and Bartlett, Robert (2005), *Deliberative Environmental Politics*, Massachusetts, USA, MIT Press, 2005); Graham S (2003), *Deliberative Democracy and the Environment*, London, UK, Routledge; and Backstrand, K., Khan, J, Kronsell, J and E. Lovbrand (2010), *Environmental Politics and Deliberative Democracy* Cheltenham, UK, Edward Elgar

case for associative democracy, so what follows is a simple engagement aimed at identifying some of the most relevant democratic effects, to later use this theoretical engagement to support the development of a heuristic-analytical device for the analysis of the democratic performance of the MSPs for groundwater management.

2.3.2. Potential Democratic Effects of Public Deliberation

Deliberative democrats consider that public deliberation has a number of potential democratic effects. For the purpose of internal consistency in the general argumentation on the democratic effects of public deliberation, the next presentation will follow also the same form of characterisation used for the description of the potential democratic effects of associative activity, which is a presentation that includes the notion of developmental and institutional effects.⁴⁸

2.3.2.1. Developmental Effects

- *Limiting the Impact of Bounded Rationality*

Public deliberation is thought to help lessen the impact of 'bounded rationality' in decision-making processes by enabling the public consideration and reasoning over matters of common concern. In this sense, public deliberation may assist citizens to widen limited, fallible and partial perspectives on specific issues and policy problems. These public deliberation processes may in turn enable the generation of complementary perspectives, or even totally new ways of considering situations and alternatives previously unknown to individual stakeholders. Fearon (1998) develops on this point:

“For a great many in collective decisions a significant problem is not that people have private information about preferences or likely consequences, but rather that it is simply hard to figure out the best course of action because the problem is so complicated. [...] To use Herbert Simon’s famous term, public discussion might then be a means for lessening the impact of bounded rationality, the fact that our imaginations and calculating abilities are limited and fallible. So faced with a complex problem, individuals might wish to pool their limited capabilities through public discussion and so increase the odds of making a good choice.”
(Fearon, 1998:49)

⁴⁸ Of course in the case of the elaboration on the democratic effects of deliberative democracy there is no explicit mention to the public sphere effects, as all the aspects are related to this notion.

- *Public Justification: Transparency and the Transformation of Interests*

Deliberative democrats also consider that the process of public deliberation encourages participants to become –or appear to become– ‘more reasonable’ and ‘less self-interested’ by way of participating in the public formulation or public justification of their objectives and perspectives. Accordingly, stakeholders participating in public deliberation processes will be required to present their perspectives on situations in such a way as to show a more comprehensive consideration, rather than just their own and immediate concerns. Presentations on such should also be more reasonable, realistic, informed, and critical in order that other stakeholders may ‘take them on seriously’ and develop greater empathy towards an individual’s or group’s perspectives. Consequently, deliberative democrats consider that the process of public deliberation will support, on the one hand, the development of a more accountable and transparent public sphere, but also on the other hand, the transformation of interests and attitudes on behalf of stakeholder participants and towards the production of more collective perspectives and shared interests (Elster 199, Dryzek, 2012). Fearon (1998) also shares his opinion on these aspects of public deliberation:

“Thus, one advantage of public discussion would be that the participants might be disinclined to make or support purely self-interested proposals for fear of appearing selfish. Of course, nothing stops a person from offering high-minded, public-spirited arguments in discussion and then voting out of pure self-interest. However, if the discussion shapes the formulation of the alternatives for vote, then one may never get the option to vote for a baldly self-interested option. There is also the possibility that arguing publicly for a position would, by various psychological mechanisms, reshape one’s private desires.” (Fearon, 1998:54)

This process of ‘transformation of interests’ is extremely important for deliberative democrats, because it is through this mechanism that individual positions may turn into collective ones that might reflect and include different interests and viewpoints, hence taming the pursuit of purely individualist and partial interests.

- *Development of Citizen Skills and Political Education*

Like in the case of associative democracy, for deliberative democrats public deliberation can also contribute to improving the ‘intellectual’ and political capacities of participants in deliberative arenas. This assumption is based on the consideration that stakeholders participating actively and constantly in public deliberation processes may increase certain skills –such as self-presentation, negotiation, and

dialogue. Citizens participating in public deliberation in order to advance policy objectives will gradually develop the necessary skills to present their opinions and to influence such processes (i.e. by learning by doing). Deliberative democratic scholars consider that participants in public deliberation may also develop certain political capacities and civic virtues –such as respect, toleration, and solidarity– through a process of socialisation into the practice of public deliberation itself. Fearon (1998) offers his view on this consideration:

“Certainly, having discussions rather than just making proposals and voting would tend to result in the development of certain skills and perhaps virtues in the participants. The following come to mind as possibilities: eloquence, rhetorical skills, empathy, courtesy, imagination and reasoning ability. And it seems plausible, as Mill’s argument implies that if people expect to engage in public discussion about what to do, they will be encouraged to invest more time and energy preparing themselves –gathering information, thinking about the problem and so on. [...] Some work in political theory on deliberative democracy has stressed the related justifications that active participation in deliberation makes better citizens and perhaps better people and that broader public deliberation will increase people’s sense of shared community and shared fate.” (Fearon, 1998:59-60)

2.3.2.2. Institutional Effects

- *Greater Transparency and Accountability through Public Scrutiny*

Advocates of deliberative democracy concur that processes of public deliberation can help to reveal private or undisclosed information about individual interests or group preferences and objectives, thus contributing to the goals of transparency and accountability. For advocates of deliberative democracy, transparency and accountability are linked to the notion of publicity. Imagine then an associative space where decision-making is taken through a process of public deliberation, if someone wishes to advance a specific proposal –in benefit of him or herself or one group only– or report on a specific policy outcome, this would have to pass the public scrutiny of the participant members, thus contributing to support the transparency and accountability of such process. The case will be the same if the State presents a policy option or the result of policy implementation to a group of stakeholders in the deliberative arena, which will require the authorities to present information in a truthful and accurate manner so as to maintain credibility. Fearon (1998) elaborates on this potential democratic effect of public deliberation:

“One reason is that discussion allows people to express diverse intensities of preference –that is, whether they have strong or indifferent feelings about particular choices (...) One reason for discussion is that it can facilitate relatively nuanced revelation of private information when it would be cumbersome to try to devise a voting mechanism that would allow for the same range and manner of expression. (...) For example, individual members of a group might private information about factors bearing on the probability of different outcomes of the different choices, or on the nature of these outcomes, and making a good decision for the group might require the revelation of such private information.” (Fearon, 1998:45-46)

- *Political Legitimacy through Participation in Public Deliberation*

Public deliberation is also assumed to help legitimise choices, through various mechanisms. The first one has to do with inclusion and participation. Accordingly, the participation of stakeholders in public deliberation processes aimed at the definition of policy choices will help, not only to gain legitimacy over such choices, but also will support enforcement and compliance towards them. The other means of political legitimacy is through the quality of public deliberation and the generation of collective agreement. On this, there are several conditions that public deliberation processes need to address to authentically contribute towards more legitimate outcomes. The general principle is that open consensus building and alternative conflict resolution in deliberative arenas bring about legitimacy.⁴⁹ Benhabib (1996) comments on this situation:

“According to the deliberative model of democracy, it is a necessary condition for attaining legitimacy and rationality with regard to collective decision-making processes in a polity, that the institutions in this polity are so arranged that what is considered the common interest of all results from processes of collective deliberation conducted rationally and fairly among free and equal individuals.” (Benhabib, 1996: 69)

2.3.3. Preconditions for Public Deliberation or Deliberative Activity

Many are the factors impinging on the feasibility and success of deliberative democratic arenas, and scholars still contend on the relative importance of each factor. Many are then the avenues of debate around the definition and explanation of the necessary preconditions for public deliberation. The following characterisation will attempt to present only the most widely recognised and critical factors. As in the

⁴⁹ For deliberative democrats, legitimacy exists only if certain preconditions are met. A more thorough presentation of the necessary preconditions for public deliberation will be presented later in this chapter.

case of associative democracy, it is possible to approach such characterisation by looking at the institutional design features –what deliberative democrats refer to as an ‘ideal proceduralist approach’⁵⁰–, and by looking at the contextual background conditions for public deliberation –what deliberative democrats refer to as the substantive conditions for public deliberation (Cohen, 1997; Bohman and Rehg, 1997).

2.3.3.1 Institutional Design Features of Public Deliberation

Deliberative democrats deploy the notion of ‘ideal proceduralism’, as an approach that seeks to capture the main features of an ideal deliberative institution in order to be able to measure an ideal type deliberative arena against real-life examples (Cohen, 1997; Bohman and Rehg, 1997). Following this, deliberative democrats consider that public deliberation requires the following institutional features to be in place.

- *Decision Making through Reasoned Deliberation and the Force of the Better Argument*

Central to public deliberation is of course the need for institutional designs to allow for meaningful public deliberation and deliberative decision-making. Accordingly, on the one hand, public deliberation requires for the purposeful and careful construction of deliberative arenas where stakeholder can freely exercise their right of voice and express their ideas, perspectives and concerns without fear of mockery or reprisal. Most importantly, due care should be taken for asymmetries in power not to radically influence collective decisions, so as to encroach on the public deliberation process. On this, deliberative democrats rightly emphasise that public reasoning should back collective decisions, not power. On the other hand, the deliberative outputs produced from the public deliberation process should be respected, not only by participant members, but also by the respective State authorities. On this Cohen (1997) offers the following explanation:

“Deliberation is reasoned in that parties to it are required to state their reasons for advancing proposals, supporting them, or criticising them. They give reasons with the expectation that those reasons (and not, for example, their power) will settle

⁵⁰ The deliberative democratic scholars’ ideal proceduralist approach follows the same social research rational of the ‘ideal type approach’ explained earlier in this document; that is to look at the ideal institutional design features that is thought may bring about the desired democratic effect.

the fate of their proposal. In ideal deliberation, as Habermas, puts it, no force except that of the better argument is exercised. Reasons are offered with the aim of bringing others to accept the proposal, given their disparate ends and their commitment to settling the conditions of their polity through free deliberation among equals. Proposals may be rejected because they are not defended with acceptable reasons, even if they could be so defended. The deliberative conception emphasises that collective choices should be made in a deliberative way, and not only that those choices should have a desirable fit with the preferences of citizens” (Cohen, 1997: 74)

- *Broad and Inclusive Participation and Institutional Neutrality*

Deliberative democratic scholars assert that institutional designs should also correspond to conditions of ‘unrestrictive domain’ and ‘institutional neutrality’ in order to ensure political equality. Accordingly, ‘unrestrictive domain’ refers to the notion that deliberative arenas should not only include all the relevant and affected stakeholders to cater for the goal of political equality and legitimacy, but should also not impose any ex-ante filters on the substantive views of participants to be discussed in the deliberative arena (Parkinson, and Mansbridge, 2012).⁵¹ Knight and Johnson (1997) explain these concepts:

“First, unrestricted domain disallows any prior constraint on the content of preferences or interests that are proposed. (...) Deliberative democracy requires the most expansive possible conditions for entry to formal or official deliberative arenas. As noted earlier, such entry must be available both at agenda setting and final decision-making stages.” (Knight and Johnson, 1997:283)

Deliberative democrats are also aware that there is a peril that deliberative arenas may exercise, through various forms, bias towards certain stakeholders and their preferred claims and choices. Consequently, they are concerned about the need for deliberative arenas to cater for ‘force of the better argument’. This means that procedures that govern deliberative arenas should aim to ensure that all claims and positions go through the critical public scrutiny, and that all proposals should then be defended through argumentation and counter-argumentation. Knight and Johnson (1997) help to explain the notion of institutional neutrality:

⁵¹ This debate is very intense and has no clear-cut response. How many different stakeholders should participate in deliberative arena is always a complex question, because empirical evidence tends to suggest that too many stakeholders and too much heterogeneity, generally speaking, produces stalemate if not conflict. Thus the attributes of a particular deliberative arena –in terms of stakeholder inclusion– is always a situation that has to be studied on a case-by-case basis.

“It is not sufficient to ensure expansive conditions of entry to deliberative arenas. It is also necessary to ensure that, once various participants and the competing positions that they endorse have gained admission to deliberative institutions, the internal workings of those institutions not accord differential advantage to either particular participants or to their favoured positions. [...] This means that the procedures that govern the deliberative phase of democratic decision-making protect equality by ensuring that all claims and counterclaims are subject to critical public scrutiny and that, when challenged, any participant must defend her proposal or back her objections by reasons.” (Knight and Johnson, 1997: 287-288)

- *Political Equality and the Common Good as Institutional Design Principles*

Deliberative democracy requires for deliberative arenas to uphold a complex ideal of political equality to enable public deliberation. This complex ideal has two main aspects: one procedural –relative to the institutional design features of a deliberative arena –and another substantive –relative to background contextual conditions. Accordingly, In terms of procedural equality institutional designs of deliberative institutions should cater for granting equal status to all participant stakeholders in a deliberative arena. Cohen (1997) develops on this notion:

“Ideal deliberation should be aimed at a rational motivated consensus –to find reasons that are persuasive to all who are committed to acting on the results of a free and reasoned assessment of alternatives by equals. [...] Beginning then from a formal ideal of deliberative democracy we arrive at an ideal of association that is regulated by deliberation aimed at the common good and that respects the autonomy of its members. And so, in seeking to embody the ideal deliberative procedure in institutions, we seek, inter alia to design institutions that focus debate on the common good, that shape the identity and interests of citizens in a way that contributes to an attachment to the common good and that provides the favourable conditions for the exercise of deliberative powers that are required by autonomy.” (Cohen, 1997:75)

In relation to the substantive political equality the institution should acknowledge that power relationships in the polity affect the opportunity and the capacity for stakeholder to engage meaningfully and freely in public deliberation processes. Thus the State should address substantive inequalities –or structural inequalities– that affect the polity. Cohen (1997) also develops the following consideration:

“In ideal deliberation, parties are both formally and substantively equal. They are formally equal in that the rules regulating the procedure do not single out individuals. Everyone with deliberative capacities has equal standing at each stage of the deliberative process. Each can put issues on the agenda, propose solutions and offer reasons in support of or in criticism of proposals. And each has equal voice in the decision. The participants are substantively equal in that

the existing distribution of power and resources does not shape their chances to contribute to deliberation.”(Cohen, 1997:74)

2.3.3.1 Background Contextual Conditions for Public Deliberation

It is widely accepted that deliberative democracy requires a number of socio-political background conditions to enable a democratic, goal-oriented and successful public deliberation process. The following is a succinct elaboration on some of the most salient contextual conditions referred to in literature.

- *Relationship with the State: Devolution and Coordinated Decentralisation*

Deliberative democrats consider that governing challenges cannot be addressed solely by the central State and, therefore, they are strong supporters of devolution and decentralisation processes, that is of the transferring of the governing responsibility from central government to subnational authorities and socio-political governance arrangements. Very importantly, deliberative democrats looking to support this devolution and coordinated decentralisation highlight, that these processes should be accompanied by the necessary authority, capabilities and resources to be able for these local authorities and socio-political governance arrangements to function effectively and efficiently. On this point, Fung and Wright (2001) comment:

“Since deliberative institutions target problems and solicits participation localised in both issue and geographic space, its institutional reality requires the commensurate reorganisation of the State apparatus. It entails the administrative and political devolution and decentralisation of power to local action units –such as neighbourhood councils, personnel individual workplaces, and delineated ecosystem habitats- charged with devising and implementing solutions and held accountable to performance criteria.” (Fung and Wright, 2001:21)

Deliberative democratic scholars are also concerned about the need to establish formal channels of communication, resource distribution and responsibility between State authorities and decentralised institutions, in such a way as to embed such deliberative arenas in the governing structures and establish clear coordination and even oversight mechanisms, a point also highlighted by governance scholars studying meta-governance strategies. Fung and Wright (2001) also develop on this important aspect:

“Deliberative democracy suggests new forms of coordinated decentralisation. Driven by the pragmatic imperative to find solutions that work, these new model rejects both democratic centralism and strict decentralisation as unworkable. The rigidity of the former leads it too often to disrespect local circumstances and intelligence and as a result it has hard time learning from experience. Uncoordinated decentralisation, on the other hand, isolates citizens and groups into very small units, surely a foolhardy measure for those who do not know how to solve a problem but suspect others, somewhere else, do.” (Fung and Wright, 2001:22-23)

- *Substantive Political Equality: Equal Opportunity to Influence and Capability-Equality*

This item has been briefly addressed above, but deserves to be further elaborated. Deliberative democrats have given important consideration to the issue of political equality. It is possible to identify then two main aspects of political equality: equal opportunity to influence –as the capacity that an individual has to influence decision-making processes through public deliberation– and capability-equality –as the actual capacity that an individual has to participate broadly in processes of public deliberation on issues that affect them. Knight and Johnson (1998) develop on the notion of equal opportunity to influence:

“Deliberative democracy requires a particular, relatively complex sort of political equality. Given our stress on the uncertainty of outcomes produced by democratic arrangements, such arrangements obviously cannot require equality of outcomes. Democracy then requires some version of equality of opportunity. More specifically, democratic deliberation requires equal opportunity to political influence.” (Knight and Johnson, 1998: 281)

Deliberative democrats draw from the work of Amartya Sen (1992, 1999). Following Sen’s work on development planning and social policy, Bohman (1998) seeks to approach the problem of equality through a ‘Sen-like’ definition of political equality, as equality for effective social freedom or ‘capability equality’. Bohamn (1998) explains:

“Employing public reason in dialogue with others clearly requires highly developed capacities and skills related to cognition and communication. It may well be that some citizens develop particular interest in public life generally or in particular issues, acquiring special abilities and even expert knowledge. But if deliberative politics is to remain democratic, it cannot simply favour those who are most educated, who have access to special information, who possess the greatest resources and privileged positions, its procedures ought to not invariably favour the reasons of advantaged persons or groups. Capability equality therefore underwrites a fundamental feature of deliberative theories of

democracy by developing an account of the minimal level of public functioning necessary for the deliberative equality of citizens.” (Bohman, 1998:325-326)

Bohman’s conception of political equality is then primarily concerned with the polities taking care of supporting the capacities relevant to participation in deliberative arenas. He then argues in favour of what he calls ‘effective freedom’, the capacity of an individual to live the life of his or her choosing, a situation only enabled by an individual’s rights and abilities to participate actively and meaningfully in political activities that shape, precisely, his or her life. This consideration is clearly related then to a number of complex contextual conditions or factors –that are also interdependent– and that characterise a polity, including such elements as: the level of respect for political and social rights; the form and distribution of wealth and resources; the level of educational attainment of social sectors; and the support that the State has for all actors to participate in deliberative arenas, amongst many other relevant factors. I am aware that describing in full the nature and interplay between these complex factors is out of the reach of this PhD, but still a modest attempt will be made to apply some of this notions in the actual study of the background contextual conditions affecting the democratic performance of the MSPs for groundwater management.⁵²

The above description of the associative and deliberative democratic theories presented succinct elaborations on the main tenets of such theories, their potential democratic effects, and the enabling preconditions that generally may affect the materialisation of such effects. What follows is an effort to harness the reflection presented above in order to support the design of a heuristic-analytical device to study the democratic performance of socio-political governance arrangements, the MSPs for groundwater management in Mexico.

2.4. End Comments to this Chapter: Clarifying the *Explanandum*

The associative and deliberative democratic theories offer an interesting perspective regarding democratisation processes and more broadly, socio-political change. The

⁵² If the reader is interested in pursuing this line of investigation interesting readings are: Sen, D. (1999), *Development as Freedom*, New York, USA, Anchor Books; Kaufman, A. (ed.) (2007), *Capabilities Equality: Basic Issues and Problems*, Abingdon, UK., Routledge, Also an interesting perspective that ponders about the issues related with democracy and equality is the theorisation on ‘difference democracy’ and inclusion and democracy. On this topic, interesting work has been produced by I. M. Young and S. Banhabib. Please see: Benhabib, S (1996), *Democracy and Difference*, Oxford, UK, OUP, and Marion, Y. (2002), *Inclusion and Democracy*, Oxford, UK., OUP.

associative democratic theory sustains that a robust and active associative activity is a cornerstone of democratic polities, because it enhances the opportunities and capacities of citizens to proactively organise in different associative spaces in order to participate in politics and governing processes more directly and influentially. The deliberative democratic theory purports that public deliberation is at the core of democratic renewal and the deepening of democratisation. Both theories offer interesting insights into the mechanisms behind democratisation processes.

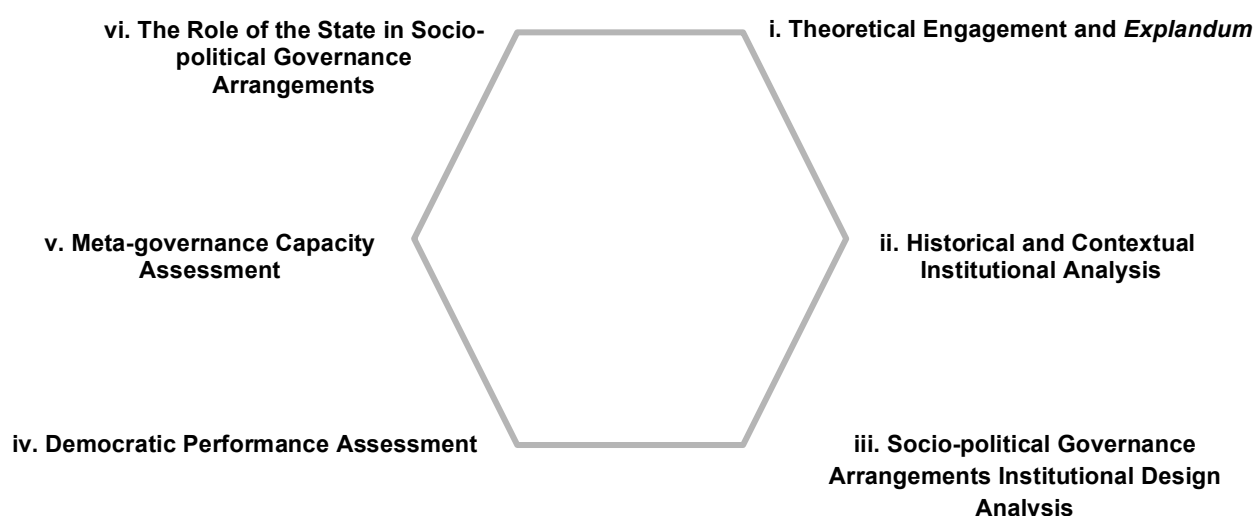
The associative and deliberative democratic theories offer a range of potential democratic effects that may be researched and studied in the context of actual socio-political governance arrangements, including the MSPs for water resources management. Both theories also offer an understanding on the preconditions affecting the attainment of democratic effects, including the institutional design features and contextual background conditions. Consequently, from these elaborations it is possible to retrieve analytical power to study socio-political governance arrangements' potential democratic effects. In the context of this PhD research, this analytical leverage will be deployed to study the potential democratic effects of the MSPs for groundwater management in Mexico.

It is important to emphasise that in order to support an accurate study of the potential democratic effects of associative and deliberative activity, as well as on the preconditions that affect the attainment of these, an intense fieldwork is necessary. This is because some of the effects can only be truly studied by actually participating in the deliberative arenas whilst public deliberation processes take place. This situation represents a challenge in terms of the actual empirical research of real life deliberative arenas. Another important aspect to consider is that some potential democratic effects are indeed difficult to measure accurately, as most of them have mostly a qualitative and intricate dimension. Still, it is possible to consider that by attempting to study the developmental, public sphere and institutional effects of associative and deliberative activity, it seems feasible to be able to establish an overall –maybe general– democratic performance assessment of socio-political governance arrangements, as well as to present arguments regarding to as how their institutional design features and background contextual conditions affect such performance.

Chapter 3: A Heuristic-Analytical Device to Study Processes of State-transformation and Socio-political Governance Arrangements

This chapter presents the heuristic-analytical device to study the Neo-liberal State-transformation process and the implementation of different State-strategies, including the establishment of socio-political governance arrangements –the MSPs for groundwater management–, their prospects and challenges –including their democratic performance– and the role of the State in their institutional development – including the State’s meta-governing strategies and capacities. It is a heuristic device because its architecture has been partially influenced by experience-based knowledge. It is also analytical, because its architecture derives also from the theoretical developments presented in chapter 2 and 3. (i.e. governance and meta-governance studies, historical institutionalism, State and power theory and democratic theory). This device presents six distinct analytical moments. Each of these moments helps to develop an understanding about different aspects concerning the research problem. Each moment can be considered a stepping-stone for the next, that is to say there is a sequence in the application of the analytical moments, as the description and the analysis provided by each of them supports the description and analysis provided by the next. Together they gradually support the development of a more comprehensive perspective and understanding of the research problem or *explanandum*. The sequence of the moments of analysis is depicted in the following diagram:

Figure-2: Heuristic-Analytical Device to Study Socio-political Governance Arrangements Moments of Analysis



(i) Theoretical Engagement and *Explanandum*: The State-transformation Process, the Governance Phenomenon, the Democratic Performance of Socio-political Governance Arrangements and the Meta-governance Strategies

The first moment of analysis corresponds to the theoretical engagement that ultimately supports the identification and definition of a research problem or *explanandum*. So through the theoretical engagement with the relevant governance studies' literature it was possible to revisit the debate and develop a research problem, that in this case is the prospect of studying the Neo-liberal State-transformation process and the implementation of State-strategies –to modify the relationship between the State and civil society throughout the governing process and in order to enable greater democratic social participation and stakeholder involvement– and their drawbacks and contradictions. Also, with the support of the literature on water governance and IWRM it was possible to identify one important form of socio-political water governance arrangement –the MSPs for IWRM. So another decision was made, to study, in more detail, the establishment and institutional development of MSPs for groundwater management in the Mexican water polity –as a central Neo-liberal State-strategy–, their prospects and challenges. This way of conceptualising the research problem was assisted through the support of HI and its orientation towards the study of the relationship between history, ideas, political institutions, policy processes and social struggles, as well as by some elements of State and power theory. These theoretical engagements ultimately support the analytical orientation and power of the second and third moments of analysis.

The literature on governance studies, as already mentioned, also highlights the need to study the democratic performance of socio-political governance, and so another aspect of the research problem was established, the prospect of studying the MSPs' democratic performance. A central contention of this PhD is that the associative and deliberative democratic theories can support the democratic performance assessment of socio-political governance arrangements. Thus, through the theoretical engagement with these democratic theories some analytical power was drawn and with the objective to support the development of the fourth moment of analysis. Similarly, with a more recent engagement with the governance studies' literature it was possible to establish another important aspect of the research problem, the prospect of studying the State's meta-governance strategies and capacities. Again, from this engagement it was possible to support the development

of the fifth moment of analysis. Finally, through the sequential and 'cumulative' insight retrieved from the deployment of the first, second, third, fourth and fifth moments of analysis, a final sixth moment of analysis attempts to draw some form of conclusion regarding the role of the Mexican State in the establishment and institutional development of the MSPs..

(ii) Historical and Contextual Institutional Analysis: Description of the Historical Context and the Overall Process of Neo-liberal State-transformation and the Implementation of State-strategies

This second moment of analysis has the objective of studying the process of Neoliberal State-transformation in the Mexican water polity and the implementation of a range of State-strategies, their drawbacks and contradictions. It is then that through the perspective of HI this moment of analysis seeks to describe and study the main ideas, political institutions, policy processes, and social struggles involved in the implementation of such State-strategies. This moment of analysis devotes efforts to establish the general contextual-historical conditions that gave rise to the establishment of the MSPs for IWRM in the Mexican water polity, preparing the ground for the subsequent deployment of the third moment of analysis. This moment of analysis seeks to address the following research questions:

- What important contextual-historical factors serve as background conditions to the phenomenon of Neo-liberal State-transformation and the implementation of State strategies?
- What were the main drivers of the process of Neo-liberal State-transformation and the main State-strategies?
- What were the main ideas, political institutions, policy processes and social struggles involved in the implementation of the Neo-liberal State-strategies in the Mexican water polity?
- What are the main outcomes of the implementation of such State strategies: drawbacks and contradictions?
- What drivers led to the establishment of MSPs for IWRM in the Mexican water polity?

(iii) Socio-political Governance Arrangement's Institutional Analysis: MSPs Institutional Formation and Development Process, and Institutional Design-Features Analysis

This moment of analysis focuses in the description and study of the establishment of MSPs for groundwater management in the Mexican water polity, and their institutional development process. So initial efforts are devoted to the description of the institutional history leading to the establishment of these MSPs, looking at some of the 'critical junctures' that gave rise to these form of socio-political governance arrangements in the Mexican water polity and also at some path-dependencies that seem to have affected this process. Secondly, it devotes attempts to develop an assessment of the MSPs' institutional design features. In order do to do so it elaborates on different institutional design dimensions of the MSPs', such as: scope, scale and institutional structure, as well as on the form of stakeholder involvement (i.e. the rights, roles and responsibilities of the stakeholders); and more generally its effectiveness, efficiency and equity, although this last aspect is analysed more thoroughly during the fourth moment of analysis.

Other important aspects of the institutional analysis are relevant, such as the way power relationships are played out, including power in the MSPs, power of the MSPs, and power over the MSPs, although this last dimension of power is explored in more detail during the fifth moment of analysis. Also as part of the study of the MSPs' institutional change and development process, other issues are also addresses such as situations of institutional adaptation and redesign –looking again at critical junctures, and issues of timing and sequence– and at the role individual agency in this process, and as form of countervailing power. Issues of path-dependency are also address, so questions asked are aimed at responding how the process of initial institutional formation has affected the process of institutional development. Some important research questions addressed by this moment of analysis are:

- What drivers lead to the establishment of the MSPs for groundwater management in the Mexican water polity?
- What are the institutional design features of the MSP for groundwater management? What are the scope, scale and institutional structure features of the MSPs for groundwater management?

- What are the characteristics of stakeholder involvement? What are the right, roles and responsibilities of the stakeholders in the context of the MSPs for groundwater management?
- What is the nature and characteristics of the stakeholder relationships and the relationship between the MSPs and the State? What is the level of decentralisation/devolution and financial autonomy? What type of decision-making powers do the MSPs have over the groundwater challenges they face?
- How do the different dimensions of power play out in the context of the MSPs for groundwater management (i.e. power in, power of and power over)?
- How have the MSPs for groundwater management evolved through time and what factors –including what critical junctures– have affected their process of institutional change and development –adaptation and redesign?

An important comment to make is that when engaging with the case study, at times it refers to the overall national level process of establishment of the MSPs, the process of establishment and development of the MSPs in the State of Guanajuato –a paradoxical case study–, and also about the more specific case of the Laguna-seca COTAS. When appropriate I will inform the reader of these shifts.

(iv) The Socio-political Governance Arrangement's Democratic Performance Assessment: The MSPs Democratic Performance

This moment of analysis will support the assessment of the democratic performance of socio-political governance arrangements, by way of establishing the different dimensions of the different potential democratic effects: including the developmental, public sphere and institutional effects. This moment of analysis will also support the study of the necessary preconditions that enable associative and deliberative activity in the context of socio-political governance arrangements: the institutional design features and contextual conditions. It is important to establish that these dimensions are mostly qualitative and not quantitative, a situation that poses some research challenges, as will be explained later in the methodological chapter of this document. The moment of analysis will be deployed to study the democratic performance of the Laguna-Seca COTAS.

- **The Potential Democratic Effects**

In terms of the 'developmental effects' of the Laguna-Seca COTAS, there are several dimensions and research questions that need to be assessed, including:

- *Development of more comprehensive and shared views through information generation and sharing*
 - Does the Laguna-Seca COTAS generate relevant information and then share it between stakeholders?
 - Does this information support the understanding of the governing challenges and policy issues faced by the Laguna-Seca COTAS and water users?
 - Does the information generated by the Laguna-Seca COTAs support the communication of members' preferences and perspectives?
- *Development of Critical Citizen Skills and other Forms Political Education*
 - Have stakeholder participants developed some form of discernible critical skills that support their participation in the Laguna-Seca COTAS?
 - Do stakeholder participants feel that they have gained some form of political education? Do they consider that by participating in the deliberative arena of the Laguna-Seca COTAS they have learned to speak in public, present issues, and negotiate amongst themselves and with State institutions?
 - Do they feel that their participation in the Laguna-Seca COTAS has made them and others more tolerant, respectful and prone to cooperation?
 - After participating in the deliberative arena do stakeholders seem more aware on the interdependent and cross cutting nature of the governing challenges they face?
 - Has there been any noticeable change in the attitude and behaviour of stakeholders when addressing matters that require consensus-formation or conflict resolution?
- *Limiting the Impact of Bounded Rationality*
 - Has the participation of citizens in the Laguna-Seca COTAS helped them to expand their vision about the challenges faced? Have they come to develop more complementary and alternative perspectives?

- *Public Justification and the Transformation of Interests*

- Has the need for public justification generated by the deliberative arena shaped the way in which stakeholders present their views, interests and initiatives?
- Have stakeholders participating in the public deliberation process modified their initial view and interests? Are stakeholders' interests now more comprehensive and emphatic after exchanging perspectives in the deliberative arena?

In terms of the 'public sphere' effects of the Laguna-Seca COTAS, the following dimensions and research questions need to be assessed:

- *Creation of a Functional Public Spheres: Enabling Public Deliberation*

- Has the Laguna-Seca COTAS developed a functional deliberative arena?
- Does the deliberative arena of the Laguna-Seca COTAS contribute to the sharing of information and stakeholder perspectives and interests?
- Does the deliberative arena support the transformation of individual stakeholder's perspectives and interests? Does it support consensus-building and alternative conflict resolution?
- Does the deliberative arena support greater coordination between stakeholders?

In terms of the 'institutional effects' of the Laguna-Seca COTAS, the following dimensions and research questions need to be assessed:

- *Keener Political Representation and Greater Political Equality*

- Have different stakeholder participants increased their access to decision-making processes?
- Have different stakeholders gained greater opportunity to express their perspectives and concerns?
- Has the Laguna-Seca COTAS supported the contestation of controversial views?

- Has the participation of marginalised stakeholders in the Laguna-Seca COTAS helped them to gain access to decision-making processes and other forms of support –material, technical and other?
- Do all relevant stakeholders participate in the Laguna-Seca COTAS? Are all the relevant interests represented in the MSPs?
- *Political Legitimacy*
 - Is the Laguna-Seca COTAS considered legitimate in the polity? Does it provide for stakeholder representation and political equality?
 - Do the actions of the Laguna-Seca COTAS render it political legitimacy in the eyes of stakeholder participants and other external stakeholders in the polity?
 - What other sources and factors convey political legitimacy to the Laguna-Seca COTAS, if at all?
- *Greater Transparency and Accountability through Public Scrutiny*
 - Has greater transparency and accountability been attained through the sharing of information and the dialogue structured in the deliberative arena of the Laguna-Seca COTAS?
 - Are important decisions, evaluation and monitoring considerations discussed in the deliberative arena of the Laguna-Seca COTAS?
- *Political Legitimacy through Participation in Public Deliberation*
 - Have decisions been taken through public deliberation processes?
 - Have conflicts been discussed in the deliberative arena and resolved through public deliberation processes?
 - Has this form of political legitimacy helped to secure enforcement?
- *Coordination throughout the Governing Processes*
 - Has the Laguna-Seca COTAS facilitated any form of coordination and cooperation between relevant stakeholders and to address governing challenges?

- Have resources from different institutions, organisation and other stakeholders been pooled to achieve synergies and develop projects and initiatives in benefit of the governing process, and as a result of negotiations and consensus-building?
- *Alternative Forms of Governance and Resistance*
 - Is the Laguna-Seca COTAS a source of governance?
 - How does the Laguna-Seca COTAS contribute to the governing process?
 - Does the Laguna-Seca COTAS provide for countervailing power?
- **The Preconditions that affect the Democratic Performance of the MSPs**

i. Institutional Design Features

In term of the institutional design features, the most important factors to consider when assessing the institutional design features of the MSPs are the following.

- *Broad Stakeholder Participation and Interest Pursuit: Balance between Inclusion and Requisite Exclusion*
 - Does the socio-political governance arraignment's institutional features cater for broad stakeholder involvement?
 - Does the Laguna-Seca COTAS cater for the balance between inclusion and requisite inclusion?
 - Does the Laguna-Seca COTAS's institutional features supports the participation of marginalised and disenfranchised stakeholders?
 - Do powerful groups also participate in the Laguna-Seca COTAS?
 - Is the Laguna-Seca COTAS 'neutral' in terms of reflecting the interests of all stakeholders or are there any 'biases' or 'hidden agendas'?
- *Internal and External Accountability, Responsiveness and Transparency*
 - Does the Laguna-Seca COTAS have mechanisms that allows for accountability, responsiveness and transparency?

- Do the Laguna-Seca COTAS's leadership are accountable to the stakeholders their represent? What institutional mechanisms allow for accountability, responsiveness and transparency?
- Is the Laguna-Seca COTAS accountable to the State institutions? What accountability and transparency mechanisms exist for this purpose?
- *Decision Making through Reasoned Deliberation and the Force of the Better Argument*
 - Does the Laguna-Seca COTAS allow for meaningful, frequent and effective public deliberation processes?
 - Does the Laguna-Seca COTAS support the necessary public deliberation processes?
 - Do State institutions and other stakeholders respect the decisions taken through public deliberation?
- *Political Equality and the Common Good as Institutional Design Principles*
 - Do the institutional design features of the Laguna-Seca COTAS support the pursuit of political equality and the common good?
 - Do the institutional design features of the Laguna-Seca COTAS support the more marginalised, poor and disenfranchised stakeholders and grant them equal access to decision making process and other institutional benefits?

ii. Contextual Background Conditions

In term of the contextual background conditions the most important factors are the following:

- *Relationship with the State: Level and Orientation of State Involvement, Coordinated Decentralisation, Devolution, and Empowerment*
 - What are the characteristics of the decentralisation process?
 - What is the level of political authority and financial autonomy that the State has allocated to the Laguna-Seca COTAs?
 - What is the level of State commitment and support towards the decentralisation, autonomy and empowerment of the Laguna-Seca COTAS?

- What mechanisms exist between the State and the socio-political governance arrangement to coordinate and cooperate?
- What other forms of State support exist towards the Laguna-Seca COTAS?
- *Substantive Political Equality and Social Equity*
 - What opportunities and capabilities do different stakeholders have to participate in the Laguna-Seca COTAS?
 - How does structural social inequalities affect the opportunity of poor and marginalised stakeholders to participate in the Laguna-Seca COTAS?
 - How do structural social inequalities affect the performance of the Laguna-Seca COTAS?

(v) Meta-governance Capacity Assessment

This moment of analysis seeks to identify and study the State's meta-governance strategies and capacities in the Mexican water polity. In the case of the definition of this moment analysis the analytical leverage harnessed derives mostly from Bell and Hindmor's State centric-relational approach to the study of meta-governance strategies and capacities, but also some other relevant elements will be extracted from the different theoretical developments already presented by the other scholars in chapter 1, and in order to complement (Bell and Hindmoor, 2009). In this case, I will disregard the meta-governance strategies developed by Kickert, Klijn and Koppenjan, because these mostly meta-governance strategies for policy networks, and this PhD is not focusing on this type of poly-centric ensembles.

Therefore, efforts under this moment of analysis will seek to identify a group of 'ideal type' meta-governing strategies and capacities in the Mexican State water institutions. According to Bell and Hindmoor (2009), the most relevant meta-governance strategies are: steering, effectiveness pursuit, resourcing, democracy, accountability and democracy. So important research questions would be:

- What are the Mexican State's steering capacities? How does the Mexican State steers and coordinates stakeholders participating in the MSPs for groundwater management?

- What conditions the Mexican State provides for facilitating and enabling stakeholder participation, interaction, and cooperation in the context of the MSPs for groundwater management?
- How does the State support the institutional development of the MSPs? Is there policy consistency on this matter? How does the Mexican State resource the MSPs –financially, technically, through information and capacity building?
- What types of monitoring and evaluation mechanisms are implemented by the State to monitor the activities and capacities of the MSPs for groundwater management?
- How does the Mexican State support the MSPs in upholding democratic principles, including broad and inclusive participation, legitimate representation, accountability and democratic decision-making?
- Is there a consistent policy to support the development of the socio-political governance arrangement?

(vi) The Role of the State in Socio-political Governance: State Strategies, Projects and Strategic Selectivity

This moment of analysis builds on the theoretical reflections made on the nature and characteristics of the State according to Poulantzas' post-Marxist interpretations and Jesoop's strategic relational approach. This moment of analysis is somehow based in the information and reflections made during the preceding moments of analysis. The objective of this moment is to offer a general overview of the role of the State in the establishment and development of the MPSs and broadly water resources management. In order to carry out this endeavour a number of important State-theory notions help to structure relevant research questions.

Some important research questions can be organised in the next manner:

- What does the process of institutional development of the MSPs tells about the nature and form of the Mexican State?
- What is the role of the State in the institutional development of the MSPs and more broadly water resources management?
- What underlying factors or forces seem to affect the orientation and role of the State in this matter.

Chapter 4: Methodological Chapter

4.1. Introduction

This chapter elaborates on the research methodology, the research methods and other important considerations involved in the research process. It starts with the presentation of the qualitative case study research strategy, the strategy selected for this PhD. This section presents the different implications of conducting this type of research strategy and the different stages that usually comprise it. Each stage is later addressed individually and highlighting relevant aspects. Following, I devote some attention to important ethical and biases considerations that deserve also some clarification on my side. At the end of the chapter I offer some reflections on the research paradigm that animated the overall doctoral research process, Critical Realism, and devoting some efforts to clarify some epistemological and ontological implications.

4.2. Qualitative Case Study Research Strategy

The research strategy selected for this PhD is that of a qualitative case study. This strategy was chosen, because the doctoral research faced the challenge to study a particular phenomenon in time and place, this is to say a contextualised phenomenon that had to be studied in a particular setting –in this case the Mexican water polity. The research interest was to study what, why and how processes happened during the Neo-liberal State-transformation and the establishment and institutional development of MSPs for groundwater management, and what have been the impacts. In order to be able to approach the phenomenon under study it was necessary to develop some theoretical understanding about it, and to be able to develop a set of research questions and establish a more concrete research problem.

Selecting undertaking a qualitative case study research carries some important considerations and conditions that have to be addressed. In this section I will address some of important aspects of this. I will begin with the definition of what a qualitative case study research entails. According to scholars (Denzin and Lincoln, 2005; Yin, 2009) the essence of the case study research strategy is that of being an empirical inquiry that investigates a social phenomenon in-depth and within a real-life context. So, ultimately a case study contributes to our knowledge of socio-political

phenomena by explaining a 'set of situations and decisions' –why they were taken, when, by who, and how. For a qualitative case study research, contextual conditions are very important to the phenomenon under study, and so they need to be acknowledged and explicated. This situation creates some important research challenges, as frequently it becomes necessary to rely on multiple sources of evidence that later need to converge to be interpreted. Another important condition is that the qualitative research strategy builds on a previous engagement with theory and in order to build theoretical propositions and/or a research hypothesis that is later tested through empirical research (Denzin and Lincoln, 2005 Creswell, 2009). This theoretical propositions and research hypothesis guide the research process. A qualitative case study research strategy generally follows the next research pathway:

- engagement with theoretical bodies, the identification and development of a research subject and research problem, and the development of an analytical framework to investigate the phenomenon under study;
- definition of research questions, theoretical propositions, and a research hypothesis;
- definition of a case study design and the research sample;
- definition and implementation of the fieldwork and the research methods;
- analysis and interpretation of the findings of the case study;
- establishment of validity and reliability considerations, and the development of generalisations;
- contribution to theory building; and
- development of policy recommendations (not necessarily, but possible).

The qualitative case study research strategy has to address a number of challenges, including: a commitment to investigative rigour and extensive fieldwork; challenges of validity (internal and external); challenges of generalisation; and challenges of reliability (Yin, 2009, Creswell, 2009). The qualitative case study research demands from the research a commitment to investigative rigour, a decision that implies 'sticking' to a research pathway that supports an appropriate engagement with theory, the definition of a research subject, the design of an appropriate research methodology and a selection of research methods, that supports the validity and reliability of the research, and that allows for the development of generalisations. The qualitative case study research also demands of an extensive and well-planned

data collection process in order to be able to gather enough information and build insight into the social phenomenon under study.

Regarding to challenge of constructing validity there are two important dimensions to this: internal and external validity. Some central aspects in the construction of internal validity are to establish a prior specification of the significant events under study, as well as to establish the causal relationship whereby certain conditions lead to specific effects. This situation requires the use of theory, the specification of concepts and some form of definition or identification of 'measures of change' that can be also specified. The concepts are then 'operationalized' through the research process –and the theoretical suppositions and hypothesis– to then find and organise the evidence of the phenomenon under study (Yin, 2009). With the interplay between theory and empirical research, inferences are then developed. If the research process offers validity and reliability, some form of generalisation may also be procured. This is an important challenge as critics typically state that single case studies offer a poor basis for generalising, and so the only way to offer generalisation is to test the findings by replicating them through other case study samples (Yin, 2009). If this form of generalisation is not available the researcher needs to indicate – where appropriate– if there are facts and insights that point towards the 'possibility' of generalisation. In a way the researcher should be able to point out some 'pathways for generalisation' out of a single case study sample, and that if pursued may lead the actual construction of amore robust external validity.

Finally, reliability intends to establish that if another researcher followed the same investigative route –the same research strategy and methodology– than the first earlier or original researcher, he/she will arrive at the same findings and conclusions. This demands of the earlier or original researcher to be thorough throughout the research process and clearly elaborate a description of his research pathway. In this chapter I will address the challenges of undertaking a qualitative case study research.

4.2.1. The Research Pathway

4.2.1.1. The engagement with theoretical bodies, the identification and development of a research subject and research problem, the definition of research questions and the research hypothesis, and the development of an analytical framework

- *The Theoretical Engagement and the Identification of Research Subject and Problem*

In the case of my doctoral research I engaged with several theoretical bodies that supported me in the identification of a research subject and subsequently the definition of a research problem; the development of theoretical propositions, a research hypothesis; and the development of an analytical framework. Accordingly, the engagement with the 'governance studies' literature allowed me to establish the possibility and relevance to pursue a scholarly research on the process of Neo-liberal State-transformation, and the establishment of socio-political governance arrangements, as one form of Neoliberal State-strategy. It led me to problematize the need to scrutinise the role of the State and power in the context of such socio-political governance arrangements, as both elements are deemed critical in defining their institutional development and their general performance. It also prompted me to consider the need to assess the performance of socio-political governance arrangements, including also their democratic performance –as frequently they are sources of democratic deficits and at times also of democratic renewal. Finally, the engagement with the governance studies literature also helped to identify the debate on meta-governance, and thus to consider the possibility of assessing also the State meta-governance strategies and capacities present in the case study.

The engagement with the associative and deliberative democratic theories helped me to establish that both democratic theories –because of their progressive tenets regarding the organisation of socio-political relations in the context of institutional settings– are a useful basis to support the definition of a range of ideal type potential democratic effects that may be attained by socio-political governance arrangements, and also the preconditions that affect such attainment. Furthermore, the engagement with both theories helped also to support the consideration made that democratic reforms in line with supporting associative and deliberative democratic practice are required to support the institutional development of socio-political governance arrangements.

The literature on water governance and MSPs also supported the definition of the research subject and problem. In reality this literature helped to 'materialise' or 'actualise' the theoretical background on the 'governance phenomenon' through the identification of a tangible research subject and problem. This action, in turn, helped to identify the concrete case study: the Mexican water polity, the process of State-

transformation –of the CONAGUA– and the establishment and implementation of the MSPs for groundwater management, COTAS.

Finally, the engagement with Historical Institutionalism plays throughout the thesis at the background and underpins the definition of the research approach and strategy. Ultimately, the doctoral research follows a Historical Institutional approach that is interested in the role of ideologies, policy ideas, institutions, socio-political forces and social conflict in definition of governing process and political behaviour, as well a policy outcomes.

Together, this theoretical edifice supports the design of a heuristic-analytical device capable of addressing the study of the process of Neo-liberal State-transformation, the implementation of Neo-liberal State-strategies, more specifically represented by the establishment of MSPs for groundwater resources management –their prospects and challenges, including their democratic performance–, and the role of the State in this process. There is an important aspect to address related to the compatibility of theories in this edifice. In my opinion Historical Institutionalism is compatible with both the governance studies literature and the associative and deliberative democratic theories. This is because more than anything else, Historical Institutionalism rather than being a theory is an comprehensive approach to the study of politics (Steinmo, 2008), that seeks to investigate real world empirical questions about how institutions structure and shape political behaviour and outcomes. In this particular case what this doctoral research sought to investigate was the process of Neo-liberal State-transformation and the rise of emerging institutional forms for enabling socio-political governance processes.

I also consider that there is compatibility with the associative and democratic theories, because ultimately these theories are also concerned with the study of how institutions actually enable associative and deliberative activity, a form of activity that is central to the well functioning of socio-political governance arrangements. So Historical Institutionalism provides the background orientation and approach, the governance studies theorisation provides the research subject and structures the research problem, and the democratic theories provide a pathway to assess the democratic performance of socio-political governance arrangements. Finally, the theorisation of the State used in this PhD is backed by a post-Marxist and Strategic-relational interpretation to the phenomenon of the State. To my mind, this definition only reflects a personal predilection, and does not seem to have computability

problems with the theoretical edifice. In principle, it is possible to consider that I could have used any other rival interpretation of the State to deploy the study of the role of the State in socio-political governance. The relevance of using the post-Marxist and Strategic-Relational approach is that they help to highlight a number of situations – socio-political struggles and structural material-economic conditions– that have a strong bearing in the outcomes. This is also part of a selected research interest.

4.2.1.2 Definition of the Research Subject and the Research Sample

The research subject of this PhD is the process of Neoliberal State-transformation in the Mexican water polity, its main State-strategies and its consequences –its drawbacks and contradictions. This process entailed the implementation of various State-strategies since the mid-1980 –when the first Neo-liberal reforms began to take place in the country as whole– and until the present date, when the consequences are still being felt. These reforms sought to transform the orientation, role and structures of the State to then modify also the relationship of the State and society throughout the water resources management process. One of those State-strategies –that represents a central element of the research subject– was the establishment of MSPs for groundwater resources management, COTAS, as new form of socio-political governance arrangement allegedly oriented at enabling greater social participation/involvement and stakeholder cooperation in an attempt to face severe and growing groundwater over-exploitation problems.

Some important facts deserve to be explicated, because they determined also the definition of the research subject and ultimately the case study design. In the case of the Mexican water polity, there were two attempts to establish and develop MSPs for groundwater resources management, the first one represented by the CONAGUA's COTAS –established across the country's territory– and the second one by the State of Guanajuato COTAS –14 COTAS to cover the aquifers in state. Both attempts are embedded in the overall State strategy to establish and develop the MSPs, but each of these attempts is different in several dimensions, that make them somewhat contrasting (in a way each attempt represents a different research sample). Efforts were made to make some form of comparison between them, highlighting some important contextual and institutional design differences. It is relevant to emphasize that I chose the State of Guanajuato COTAS, because they represented a 'paradoxical' case where serious attempts were being made initially (at the end of the 1990s and beginning of the 2000s) by the local State to enable them as authentic MSPs for groundwater resources management (i.e. politically and legally

autonomous institutions, with executive powers, financially independent, participatory and inclusive). This situation marked a stark contrast with the CONAGUA COTAS that were only considered as consultative bodies –and present an important number of drawbacks and contradictions– with very little influence in the groundwater management process.

Furthermore, another decision was made in the definition of the case study research design. In order to study in more detail the democratic performance of the COTAS, I chose a particular COTAS in the State of Guanajuato, the Laguna-Seca COTAS (out of 14 other COTAS established in the State of Guanajuato). This selection was not random, but responded to the need to find a COTAS that showed some form of positive outputs. In reality the Laguna-Seca COTAS is an embedded sample within the overall sample of the State of Guanajuato COTAS. So after interviews with scholars and also civil servants, they suggested that the Laguna-Seca COTAS could prove a telling and interesting research sample to evaluate in terms of its democratic performance.⁵³ The Laguna-Seca COTAS was the first one to be established in the State of Guanajuato and apparently efforts were made during its establishment process to carry out an inclusive convening process. Also in the opinion of scholars and civil servants at the CEAG and the CONAGUA State Office in Guanajuato, the Laguna-Seca COTAS benefited from a very active Technical Management Team, and so it was generally recognised as a ‘good’ example of a ‘well-functioning’ COTAS.

One last important consideration to make regarding the definition of the research subject and sample is the one concerning the study of the State meta-governance strategies and capacities. In this case I also engaged in the study of the incipient meta-governance strategies and capacities of both the CONAGUA –at a central level– and the CONAGUA State Office in the State of Guanajuato. Again this decision was made because both cases are also contrasting. In the case of the CONAGUA there are only very vague ideas about how to govern over the COTAS, and in the case of the State of Guanajuato there is an ambitious strategy to put the COTAS at the centre of groundwater management processes and, hence, strongly support their role and their institutional development.

⁵³ I am thankful to Dr Boris Marañón and Mr Jose Alfredo Galindo for pointing out the Laguna-Seca COTAS as potential case study.

Figure-3. Basic Type of Design for Case Studies
 In the case of this doctoral research the design concurs with an embedded-multiple units of analysis approach

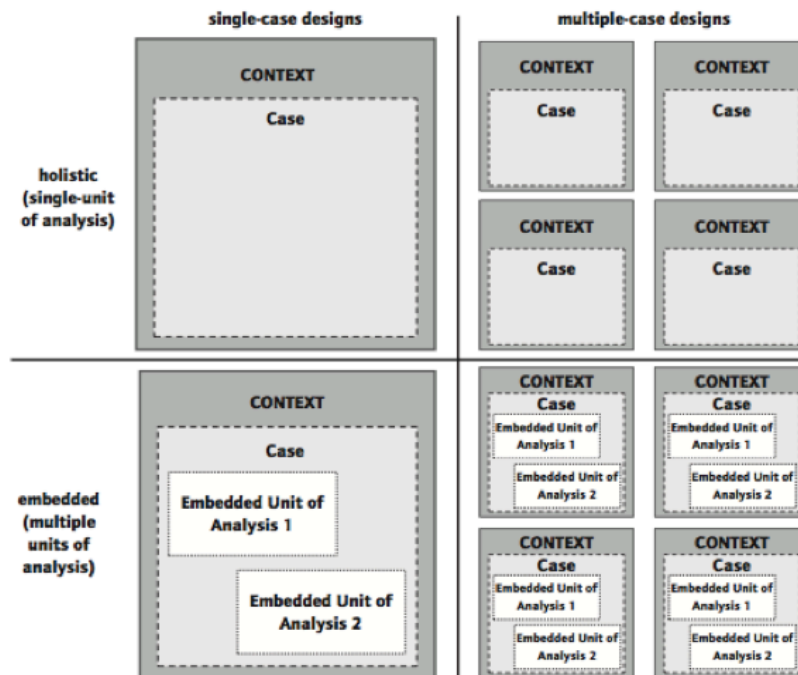


Figure 2.4 Basic Types of Designs for Case Studies
 SOURCE: COSMOS Corporation.

Source: Yin (2009), Kindle Location 1168

4.2.1.3. The Definition of the Research Questions and Research Hypothesis

- *The Main Research Questions*

An important aspect that deserves to be highlighted is that the research questions follow the sequence of the moments of analysis of the heuristic analytical device presented in the previous chapter. This sequencing attempts to approach the research problem by layers and to gradually build a more comprehensive understanding about it.

The Main Research Questions:

- What have been the main characteristics of the Neo-liberal State-transformation process in the Mexican water polity? What were the main State-strategies implemented and what did they achieve? What have been

the main drawbacks and contradictions in the implementation of these State strategies?

- What is the institutional history of groundwater management in the Mexican water polity? What are the institutional design features of the MSPs for groundwater management, COTAS? What are the prospects and challenges of these MSPs for groundwater management at a national level and also in the State of Guanajuato?
 - What has been the democratic performance of the Laguna-Seca COTAS? What kind of democratic effects has it attained, and what preconditions has affected this process? Are the COTAS as source of democratisation in the context of the Mexican water polity?
 - What are the main meta-governance strategies capacities of the Mexican State over the MSPs for groundwater Management, the COTAS?
 - What has been the role of the State in the establishment and institutional development of the MSPs for groundwater management, COTAS? What does this role tell us about the nature and characteristics of the Statehood Formation in Mexican water polity?
-
- *The Research Hypothesis*

The Mexican State went through a complex Neo-liberal transformation process that entailed the implementation of series of State-strategies that sought to transform the water polity. Overall, these strategies show important drawbacks and contradictions that ultimately have created serious governing problems and path dependencies –deliberate and inadvertent. In the case of the establishment of MSPs for groundwater resources management (COTAS) –like in the case of the other State-strategies–, the role of the State in their institutional development has been mostly contradictory, at best inconsistent. In the case of groundwater management, the Mexican State appears mostly concerned with enabling economic development and the process of capital accumulation, at the expense of a more sustainable, participatory and democratic groundwater management, and thus there has been a contradictory interest in enabling the institutional development of the COTAS. Consequently, the COTASs' performance –including their democratic performance– has been meagre and peripheral in terms of addressing groundwater management challenges. Still, it is possible to recognise some prospects, especially through the 'countervailing power' that has been generated at the centre of the COTAS, and also through the recent implementation of some apparently more enabling meta-

governance strategies implemented by more 'progressive' cadres of the CONAGUA's State Office in Guanajuato. This confirms the assumption that the MSPs for groundwater management, COTAS, are not devoid of politics; they remain open-ended and uncertain institutions with outcomes that seem contingent to the array of social forces that socially construct them.

4.2.1.4. The Fieldwork and the Definition and Implementation of the Research Methods

- *Fieldwork Stages*

The PhD took 15 years in the making, starting in 1998 and finishing in 2014. This situation created some challenges and also some opportunities in terms of the fieldwork. This section describes what happened during this long period of time, and in order to present a more organised narrative I will divide the fieldwork in three different stages: stage 1, phase 1 (initial exploratory fieldwork, during 2001 to 2002), stage 1, phase 2 (second fieldwork engagement, during 2002- 2003), an interruption stage (2004-2011), stage 2 (third fieldwork engagement, during summer 2011 to winter 2012), and stage 3 (corrections to the PhD thesis, 2013 to 2014). The following is a description of each of these stages.

Stage-1, Phase 1: Initial Local Literature Review and Exploratory Fieldwork (2001-2002) (full involvement with the PhD)

The first exploratory stage started in mid-2001 and lasted for approximately 6 months. This period represented the start of long-term engagement with the fieldwork and was mostly devoted to assessing the feasibility of carrying out the case study analysis in Mexico and establishing an incipient network of contacts. I proceeded first by attempting a local literature review to identify relevant scholarly research and specialised literature on the subject matter. At that time I found that most of the literature was devoted to the study of MSPs at the river basin level, and in reality I was not able to find any relevant literature on the COTAS. Following this first step I established contact with two distinguished scholars in the water sector, Dr Blanca Jimenez and Dr María Luisa Torregorasa. Both of them encouraged me to continue my doctoral research and confirmed me that undertaking a doctoral research on the subject on the process of State-transformation and the establishment of MSPs would be a timely, if not complex endeavour. They strongly advised me to gradually find a way to approach the CONAGUA –at the highest level possible to gain access to

timely and relevant information, but most importantly to harness support for my doctoral research. Otherwise access to information would have been extremely difficult.

My next step was to find a way to approach the CONAGUA –at a central level. The CONAGUA is a complex, huge and also hermetic institution, so finding the right entry point took some time. Eventually, I found a way in through the then Deputy-Director of Planning and Programming, Mr Cesar Herrera, who became interested in my research subject and channelled me to the right people in the relevant areas of the CONAGUA. The second point of contact at the CONAGUA was with the then General Manager of the River Basin Councils and Auxiliary Bodies, part of the Deputy-Direction of Rural Programmes and Social Participation, and the office in charge of the establishment and institutional development of the MSPs for water resources management in Mexico, including the river basin councils, micro-basin commissions and groundwater management committees, the COTAS. Mr Guillermo Chavez also found my doctoral research interesting and allowed me to undertake several informal interviews with him and his staff at the Office.⁵⁴ After a round of interviews with civil servants at the CONAGUA and also some WMO Consultants – that were part of the MASAS Programme–, it became clear that I had the possibility to undertake a case study analysis on the three different types of MSPs for water resources management currently being established by the CONAGUA. I had to then take a decision that had to be driven by my scholarly research interests, but also by practical and financial considerations. In the end I chose to study the MSPs for groundwater resources management, COTAS, and for three reasons. The first one the COTAS's scale –at the level of aquifer – makes it easier to manage for a doctoral research fieldwork, as opposed to the river basin councils that cover a more extensive geographical area –large river basins–, and that would require travelling to different riparian states. The second, the institutional development of river basins in Mexico had been studied –and was being studied– by a various consultants and scholars, but that was not so much the case for the COTAS; hence leaving some room for innovation in the latter case. The third reason, is that the research on the COTAS seemed to be more financially manageable, an important consideration to make.

⁵⁴ The interviews with Mr Guillermo Chávez were definitive in the definition of the research subject. At that time I also had the opportunity to meet Mr Axel Dourojanni and Dr Luis Garcia, to senior consultants experts in the field of MSPs for water resources management. The interviews with them were also very influential in the selection of the COTAS as an element of my research subject.

My interaction with the River Basin Councils and Auxiliary Bodies Office at the CONAGUA led me to discuss the possibility to choose the Queretaro Valley COTAS as the research sample for my case study. This COTAS was part of an important World Bank, OMM and CONAGUA groundwater management programme –the MASAS Programme– and was receiving a lot of support for its institutional development. So I proceeded to interview the then Programme Manager –at that time–, Dr Venancio Trueba, who confirmed the information that I had about the Queretaro Valley COTAS, and also offered his support. He then channelled me to the responsible CONAGUA officer in the State of Querétaro. I continued to pursue this possibility and so I travelled to the City of Querétaro (3.5 hours from Mexico City) to meet with some local stakeholders. A third important round of interviews started with the CONAGUA State Office in Queretaro, who at that time was playing the role of Technical Secretary of the Querétaro Valley COTAS. I had interviews with the State-level Director at that time, Mr Sergio Loustanou, who was also supportive of my doctoral research, and then with relevant staff members that were more closely involved with the management of the Queretaro Valley COTAS, Ms Lourdes Villegas, and Mr Ramon Gamez. With their support I had access to relevant information and I had also the opportunity to meet with some members of the Governing Board of the Queretaro Valley COTAS, at that time its President Alfonso Cobo and Treasury Mr Jose Antonio Urquiza. From this round of interviews I considered that there were some enabling conditions to undertake the case study in Querétaro, and so I initially chose the Querétaro Valley COTAS as my research sample.

Stage-1, Phase 2: Fieldwork in Querétaro (2002-2003) (partial involvement with the PhD)

The second phase of the fieldwork is marked by an invitation at the end of 2002, on behalf of Mr Guillermo Chávez, to become part of the staff of the River Basin Councils and Auxiliary Bodies Office of the CONAGUA, as coordinator of advisors for the Office. This position entailed coordinating a number of international and national technical advisors to support the institutional development of the RBCs and its auxiliary bodies. My scholarship was ending and decisions had to be made. It seems important to highlight that this professional opportunity facilitated a deeper understanding of the political, legal and institutional aspects involved in the process of State-transformation and the establishment and institutional development of the COTAS. It was also possible to travel around the country and participate in a number

of river basin council meetings and also to some of the COTAS meetings in the different states.

During phase 2 I continued going to the State of Queretaro to participate in the different meetings –the deliberative arenas– organised by the Querétaro Valley COTAS. I had the opportunity then to study the functioning of these deliberative arenas, to visit some of the local *ejidos*, and the mid-size and large landowners members of the COTAS. I was gradually building the case study of the Querétaro Valley COTAS and the research work seemed promising.

Interruption State (2004-2011)

Then my professional life took a turn and I had to change jobs. This time I was invited to work for the Deputy Director of Planning and Programming at the CONAGUA. This situation had a very significant influence in the definition of the orientation and content of the PHD, as from that job position I was able to understand in a more complete way the role of the State in water resources management and also the process of State-transformation that the CONAGUA was experiencing at that time. I had also the opportunity to participate in the organisation of the IV World Water Forum, a situation that enabled me the opportunity to organise a high-level panel on Democracy and Empowerment in the Water Sector, and chaired by Julia Carabias, and reported by Adriana Allen. With the end of the government administration in 2006, as it is customary in Mexico, I had to leave the CONAGUA. Fortunately, I was invited to work at UN-Habitat (from 2007-2013) working in the design and development of the Water and Sanitation for Cities Programme in Latin America. This position entailed constant and intense travelling to many different places in the world, a situation that complicated also any form of serious engagement with the PhD project. From this position I continued to work in the area of pro-poor water governance and other interesting themes. This experience also served me to gain some perspective of the water resources situation in Mexico, and of the role of the State in water resources management. It was in 2011 when through the encouragement of my family and friends, I decided to re-engage with the PhD project, this time perhaps with a better understanding of the research subject, and a clearer idea of the research problem. This decision was not easy, because I had to continue working, and then also to carry out my doctoral research.

Phase 2: Re-engagement with the PhD project (2011-2012)

This represents a final and determinant stage in the PhD's fieldwork. During this stage a number of activities had to be undertaken. First, it was necessary to carry out a comprehensive updating of the literature review and to assess the viability and relevance of the case study of the Querétaro Valley COTAS. These important steps produced some important findings and adjustments. I came across new concepts that helped me to address the research problem in a more comprehensive manner. Most importantly, my feeling is that I also approached the phenomenon under study with 10 years of involvement in the water sector and experience working both as a civil servant and also as UN officer, a situation that I think contributed for the best. Another obvious and determinant situation was that 10 years had also elapsed in terms of the institutional development of the MSPs for groundwater resources management, and so there was simply more history to study and report about from the perspective of a doctoral research.

Very relevantly, when I reengaged with the fieldwork in Queretaro, I encountered that the Queretaro Valley has ceased to exist, because of reasons that I explained in the introduction. I was then required to find a new case study sample. At that time the CONAGUA had already established several COTAS across the country, but in the opinion of both civil servants and scholars the most relevant experience was that of the COTAS in the State of Guanajuato. This is because the CEAG was attempting to develop a model that attempted to really innovate and build institutions for socio-political governance. The next was to corroborate this information and embark then in a second fieldwork.

After some new interviews with civil servants at the CONAGUA and also with scholars I assessed then the possibility to study the State of Guanajuato COTAS.⁵⁵ So I initiated a new local literature review, only to find that at that time it was possible to find some new and interesting literature on the subject matter of the COTAS, their institutional development and their drawbacks. This situation helped to confirm that it was relevant and also feasible to study the State of Guanajuato COTAS.

⁵⁵ I am grateful to Mr Ricardo Sandoval and Mr Jorge Montoya in Guanajuato for their interest and support in my doctoral research. As already mentioned Mr Boris Marañón and Diana Lopez, two of the very few scholars in Mexico studying the COTAS, also supported my decisions in this crucial moment of the PhD.

The next step in this stage represented an intensive fieldwork in the State of Guanajuato to carry out secondary and primary data collection. It is important to emphasise that I benefited from the support of the CONAGUA –at both federal and state level–, the CEAG, the CEH and the COTAS. At that time, it was extremely important to concentrate on the fieldwork efforts, because of financial and time constraints, and therefore a selection of a relevant sample had to be undertaken, leading to the selection of the Laguna-Seca COTAS. I wish to highlight also that I benefitted from the support granted by the different members of the Laguna-Seca COTAS, including its President, Manuel Gerardo Garcia, and the members of the Technical Management Team –most importantly Ms Lilia Esqueda and Ms Gretel Aguilar.

Furthermore, this stage of the fieldwork benefited immensely from the organisation of the VIII National COTAS Meeting in the Context of Expo-Agua Guanajuato (from of August 29th to 31st, 2011, a water convention organised by the State of Guanajuato and where the COTAS also have their annual national meeting. This represented a great opportunity to carry out semi-structured and unstructured interviews with many of the COTAS' members, the CEH's members and civil servants. For my doctoral research it was extremely important to organise a focus group, because I need to confirm some of my considerations regarding the prospects and challenges of the COTAS, and the focus group would allow this. The focus group centred in attaining the opinion that the groundwater users had about groundwater management problems and about the COTASs' role –present and future– in groundwater resources management. With these fieldwork finished, I then embarked in the writing of the PhD thesis that had to be handed in October of 2012.

Phase 3: Corrections to the PhD Thesis (2013 to 2014)

This last phase in the PhD process entailed addressing the commentaries made by my supervisors, Dr Adriana Allen and Dr Vanesa Castan-Broto; as well as those by my examiners, Dr. Estaban Castro and Dr. John Twigg, during my *viva* examination in March 2013. A minor fieldwork was organised to the Laguna-Seca COTAS to access information on some last relevant details that helped to address some drawbacks of the original thesis.

- *On the Research Methods: Secondary Data Collection / Documental Review*

The documental review consisted of an engagement with documents from mainly four different sources:

Federal Government. This included official publications from the government agencies in charge of water resources management, including: CONAGUA SEMARNAT and the INE. The main documents reviewed were the sectorial development plans and statistics report (e.g. the National Water Programmes, National Environmental Programmes, the National Water Statistics Reports 2012, and the Water Agenda 2030), and other specialised technical reports. In Mexico there is also an important historic archive managed by the CONAGUA that stores several important documents related to the history of water resources management. Other important sources of information were the 1994, and 2004 versions of the National Water Law.

State-level Government. This included again official publications from the CONAGUA's State Office in Guanajuato (e.g. the State-level Water Programme) and the Guanajuato State Water Commission (CEAG) (e.g. Strategic Organisational Plan, and other technical documents). Other important documents reviewed were the Laguna-Seca Groundwater Management Plans, and the SIMSA Strategic Plan. Other sources of information were gathered through official power-point presentations.

International Organisations. This included different official documents produced by World Bank and the WMO; especially the technical reports produced by the GW-Mate Programme –the special groundwater management programme at the World Bank–, and the documents produced under the MASAS Programme. Other important publications reviewed are the ones produced by the ECLAC's Natural Resources Management Group, that focus on MSPs for water resources management.

The Guanajuato COTAS. This includes material such as technical reports, their constitutive act as a civil association, their agreement of cooperation between the Laguna-Seca COTAS and the CEAG, their Annual Work Programmes, the groundwater management plans, progress reports, power-point presentations and other official communications.

Academic Publications. This includes specialised books on the subject matter and peer-reviewed papers. Interesting material was also found in doctoral thesis from students at the FLACSO and at Wageningen University. It is important to comment that there are not many publications on the socio-political aspects of the institutionalisation of the COTAS in Mexico, something that represented some challenges. In Mexico there are basically two specialised academic libraries, the library at the Colegio de Mexico (COLMEX), and the Facultad Latinoamericana de Ciencias Sociales (FLACSO). Both libraries are of restricted access and require special permission to access. It is not possible to remove the books from their premises as an outside researcher, a situation that also created some hinderances.

All the documental review material is cited in the bibliography at the end of this document.

- *On the Research Methods: Primary Data Collection / Unstructured and Semi-structured Interviews*

A number of interviews were carried out and by stages. Some of them were undertaken informally (i.e. through unstructured interviews), taking advantage of for example waiting periods before official meetings commenced, long drives to get to meeting places, in visits to the groundwater well sites, or at coffee breaks, etc. Some of these unstructured interviews were very important, especially with the social sector –the small-scale agriculturalists and the *ejidatarios*–, because it is easier to have a friendly conversation with them informally and in a small group of people, than to sustain individual interviews. Generally speaking, in the Mexican water polity stakeholders are distrustful of outsiders. This is important, because as Patton (2002) comments, the task of the qualitative researcher is to provide a situation within which people can respond accurately and freely about their points of view and their experience, without fear of reprisal or mockery. A number of semi-structured interviews were also undertaken with different groups, and mainly with different civil servants at CONAGUA, and also former civil servants.

The first stage of interviews was oriented at understanding the context of my research and assessing the feasibility of undertaking the doctoral research in Mexico. I initially approached a ‘friend’ that had a comprehensive overview of the water and natural resources situation in Mexico and that could provide with the necessary contacts to continue, Dr Juan Carlos Belaustiguoitia, former Under-Secretary of

State for the Environment. This initial interview helped to ascertain that it could be possible to carry out a research on the subject matter I intended. He then provided me with a high-level contact to approach the CONAGUA, Mr César Herrera Toledo, then Deputy-Director of Planning and Programming of the CONAGUA, as already described. In parallel I also approached two scholars in Mexico that also supported my intentions, Dr Blanca Jiménez and Dr Maria Luisa Torregrosa. Through Mr Herrera, I met Mr Guillermo Chávez, Manager for River Basin Councils and Auxiliary Bodies, the office in charge of the institutional development of the MSPs. This first round of interviews was determinant.

After this first round of interviews I subsequently engaged in undertaking interviews with different types of stakeholder, including government officials, members of the COTAS, officials from the World Bank, independent consultants and academics. Throughout this document, I make efforts indicate the sources of information that have contributed positively in the argumentation presented by me in this document. Where relevant and appropriate in terms of 'ethical and confidentiality considerations', I maintained the sources vague. I wish to highlight that in most of the cases people preferred not to be taped, a situation that is 'normal' in the case of the Mexican water polity, people are generally distrustful and also have concerns over the use of information. In annex-D I present the listing of key interviewees and informants.

- *On the Research Methods: Primary Data Collection / Direct Observation (field trips to the Laguna-Seca Aquifer Area)*

The process of direct observation mainly consisted of field visits to different groundwater wells and their surrounding areas pertaining to several aquifers' regions, including mostly the Queretaro Valley COTAS and the Laguna-Seca COTAS. These visits were very informative about some of the main problems regarding groundwater governance. First, wells are extremely scattered across the aquifer's territory, making it extremely difficult for the State to exercise enforcement over groundwater abstraction. A lot of the wells do not have properly functioning water meters, a situation that also deters an effective measurement of water abstraction and, consequently of enforcement. It is also important to mention that wells are situated in private property or *ejidos*, and at times owners are not willing to allow government inspectors to enter their property. There have been cases when inspectors have been threatened with the use of violence if they were to trespass to

check metering devices. Another telling situation regarding groundwater use is the dramatic change in land-use, as a lot of private property previously used for agriculture is now being used or being sold for industrial parks and urban development –the *Parque Industrial Opción*, in the Municipality of San Luis de la Paz, in the Laguna-Seca Area is an important case of this form of land conversation (Municipality of San Luis de la Paz, 2012). Other agricultural lands remain idle – ranches and parcels have been abandoned, because the owners do not have the financial resources to extract groundwater that is too deep now due to important over-exploitation. Furthermore, it is also possible to notice the presence of agro-industrial firms that have managed to consolidate the transfer of groundwater concessions rights in their favour, a phenomenon that actually represents a form of land and water grabbing.

- *On the Research Methods: Primary Data Collection / Participant-Observation in COTAS meetings*

Participant observation was an important element in the process of primary data collection, because the study of deliberative arenas demands it. So it was necessary to attend a number of COTAS meetings to be able to assess the process of public deliberation and the creation of the public sphere. On this is relevant to highlight, that the COTAS do not meet very frequently –except perhaps when engaged in the production of the groundwater management plans–, a situation that creates some barriers for their assessment. This situation entailed to ‘always be ready’ to attend the COTAS meetings when scheduled. My scholarly experience in the deliberative arenas mainly consists of my attendance to those arenas convened by the Querétaro Valley COTAS and the Laguna-Seca COTAS.

I wish to highlight that during some of the COTAS meetings, I was invited to participate pro-actively and give my opinion on issues and concerns. On other occasions, it was best to maintain some distance from the on-going discussions, especially when the COTAS members were engaging in severe criticisms regarding government actions –for example with the issue regarding matters concerning the allocation of funds. Attending the COTAS meetings was very productive, because it was possible to have conversations –unstructured interviews– with groundwater users –principally small-scale *ejido* farmers– who sometimes are a bit reluctant to engage in more thorough semi-structured interviews, as already mentioned. So coffee breaks were extremely useful periods to gather their opinions on situations.

- *On the Research Methods: Primary Data Collection / Organisation of a Focus Group*

According to Morgan (1998), focus groups are basically group interviews, relying on the dynamic interaction of selected participants and based on a topic supplied by the researcher, who takes the role of moderator. Focus groups are also particularly useful to retrieve a considerable amount of information in a short period of time. They are useful for engaging in collective explorations about a phenomenon and to retrieve general appreciations on a subject matter. That is to say, they generate a venue for interpersonal communication between participants that helps to clarify group perspectives on issues and concerns. They are also particularly useful to help fine-tune semi-structured interviews as well as to triangulate information (Kitzinger, 1995). They also support the validation of information and sometimes also the prospect of generalisation.

I sought the organisation of a focus group August 29th, 2012 in the context of the Annual COTAS meeting in ExpoAgua, Guanajuato. It is pertinent to mention that the focus group was a jointly organised with the CEAG and the CONAGUA State Office in Guanajuato, so I did not have full control over the design of the dynamic or the moderation. Consequently, I had to share the design of the objectives of the focus group and the content of questions to be engaged during the session. In the table below, I present the focus group questionnaire; the questions in bold are the ones that were generated by me. The participants of the focus group were members of the 14 COTAS of Guanajuato, including Presidents and Technical Managers. No members of government were invited, only members of the COTAS and in order to create a more free and relaxed deliberative arena. The moderation of the focus group was shared by with me another individual. Although sharing the focus group with other entities was not ideal, it still represented a great opportunity to engage with a group of people that share the same type of problems and in order to retrieve general information on the groundwater users' perceptions of the COTAS institutional development process, their prospects and challenges. Where appropriate in the relevant chapters of the thesis, I highlight where the argumentation presented is supported by the insights and the information that I gained from the focus group.

Table 1: Focus Group Questionnaire	
Regarding the purpose of the COTAS	
What does the COTAS do, that it should keep doing?	
What does the COTAS need to stop doing?	
What activities does the COTAS need to begin to do?	
What factors affect the performance of the COTAS?	
Regarding the members and clients of the COTAS	
Who should be the beneficiaries of the COTAS?	
Who should not be the beneficiaries of the COTAS?	
What services and functions should the COTAS be providing to the government?	
Regarding the faculties and roles of the COTAS	
What faculties and resources should the COTAS have?	
What kind of support should the COTAS receive from government?	
What kind of changes would strengthen the COTAS?	
Regarding strategic alliances	
11	What type of alliances should the COTAS develop?
12	How can the COTAS achieve organisational sustainability?

4.2.1.5. The Analysis and Interpretation of Findings of the Case Study

The analysis and interpretation of findings of the case study are anchored in the heuristic-analytical device that derives its investigative power from theoretical sources that, in turn, support theoretical propositions that orient it in its search for *explanans*. The architecture behind this device seeks to support a sequence of moments of analysis that orient their analytical power towards different aspects and layers of the phenomenon under study in an attempt to gradually develop a more profound and complete understanding about it. I highlight that by embedding in its architecture a sequential application of different moments of analysis it is possible then to study different interrelated aspects and layers of the phenomenon. This probing capability allows either to confirm or to disprove what has been learned in each of the previous moments, helping to support the construction of internal validity –a point that I will address later in this chapter.

So the first moment of analysis (i.e. the theoretical engagement and *explanandum*) provides theoretical founded propositions about what needs to be investigated. Eventually, these theoretical propositions assisted in the design of a research hypothesis. Both the theoretical propositions and the research hypothesis guide the

search of an *explanans*. The second moment of analysis (i.e. historical-contextual institutional analysis) provides a general approach to the phenomenon under study, indicating the general orientation and pattern of the research subject and problem. In this case this orientation and pattern refers to the general and widespread characteristics of the process of Neo-liberal State-transformation in the Mexican water polity and the implementation of a number of State-strategies that sought to modify the relationship between the State and civil society, highlighting their drawbacks and contradictions.

The next step in the sequence is the application of the third moment of analysis (i.e. socio-political governance arrangement's institutional analysis). This moment of analysis provides a more in-detail and penetrating investigation regarding one selected and particular aspect of the research subject and problem. In this case, this refers to one Neo-liberal State Strategy identified during the second moment of analysis –and one of several others– and that was also already pre-established as a central research concern previously during the first moment of analysis. This State-strategy is represented by the establishment and implementation of the MSPs for groundwater resources management; an emerging form of institutional innovation for socio-political groundwater governance. During this third moment analysis the MSPs for groundwater management are analysed through the support of a standard and *ad-hoc* institutional analysis framework provided by the specialised literature on water governance and water resources management (i.e. the scale, scope, institutional structure, stakeholder involvement, efficiency, efficacy and equity). Furthermore, this moment of analysis also devotes attention to develop a greater insight of the research subject and problem by establishing a simple comparison between to research samples that distinguish themselves for manifesting different empirical characteristics –the CONAGUA COTAS and the State of Guanajuato COTAS. This moment of analysis hence enables to probe into yet another 'layer' of knowledge and builds a more comprehensive insight regarding the orientation and pattern of the research subject and problem.

Turning onto the fourth moment of analysis (i.e. socio-political governance arrangement's democratic performance assessment) the operation centres again in probing deeper into the research subject and problem, this time by assessing the democratic performance of one embedded research sample of the State of Guanajuato COTAS, the Laguna-Seca COTAS. The operation of this moment of analysis is also supported by the theoretical propositions established during the first

moment of analysis –through the use of the democratic and associative democratic theory analytical power– and provides again a more in-detail investigation of the Laguna-Seca COTAS, this time in terms of the assessment of a range of potential democratic effects achieved by the Laguna-Seca COTAS, and also the identification of a number of preconditions that seem to affect this achievement. The insights produced by the application of this moment of analysis are wide-ranging and also interweaved with those produced by the other moments.

After the immersion into the MSPs' institutional development process provided by the third and fourth moments of analysis, the next moment of analysis shifts its focus back specifically to the role of State. The fifth moment of analysis (i.e. the State meta-governance strategies and capacities assessment) examines the range of State meta-governance strategies and capacities that the Mexican State has over the MSPs for groundwater management, again establishing a comparison between the CONAGUA's –central office– strategies and capacities and that of the CONAGUA's State Office in Guanajuato. The insights resulting from the application of this moment of analysis serve to corroborate the findings about the role of the State that have been problematized during the first moment of analysis and have been surfacing during the implementation of the previous moments of analysis –second, third, and fourth.

Finally, with the theoretical background that supported the development of the *explanadum*, and the information and insights gathered from the application of the different moments of analysis, it was possible to devote efforts to apply the last moment of analysis (i.e. the assessment of the role of the State in the institutional development of the MSPs for groundwater resources management), and where some inferences are made regarding the role of the State in the establishment of MSPs for water resources management, and more broadly water resources management. With this last action the sequence in the analysis and interpretation of the case study is completed.

4.2.1.6. The Validity and Reliability of the Case Study Research, and the Development of Generalisations

There are several aspects of the validity of the case study research strategy that should be addressed. In this case I have sought to address validity concerns through the following pathways. Initially one way to support the validity of the

research is through an accurate definition of concepts that are later subject of investigation –operationalization and ‘measurement’. So, throughout the thesis I have made efforts to define the main concepts that are subject of investigation and that are used to describe and assess the phenomenon under study, for example State-transformation, State-strategies, the State and power concepts, the different institutional dimensions of the MSPs for groundwater resources management, the potential democratic effects and preconditions for associative and deliberative activity, and the meta-governance strategies and capacities. All of these concepts are presented at early stages of the thesis in the theoretical chapters –when the *exaplandum* is presented. Later throughout the empirical chapters these concepts are then operationalized to describe the different aspects of the phenomenon under study. I realise that throughout the thesis other concepts gradually appear to support building the argumentation, and some of them are left more loosely undefined, leaving open the ground for the reader’s interpretation. Still, attempting to secure the meaning of all the ‘secondary’ concepts seems an extremely complicated task to achieve. It is my hope that reader somehow is oriented on the definition of such concepts by the nature of the context they are embedded in (i.e. by the orientation of the argumentation itself). Still these secondary concepts remain mostly at the background of the argumentation.

The second pathway that seeks to convey internal validity is through a strategy termed ‘pattern matching’, that involves comparing the empirical based pattern (i.e. the findings’ pattern) with the predicted one, and through the use of some pre-established theoretical suppositions and a research hypothesis (Yin, 2009). In this case, again in the theoretical chapters a number of theoretical suppositions and the research hypothesis were established to help oriented the research endeavour. This action supports then focusing the attention of certain ‘useful’ situations and information –and disregard other ‘non-useful’– in the development of argumentations. Even more so, it is possible to consider that one of the central concerns of the heuristic-analytical device is to help focus the attention over certain aspects of the phenomenon under study throughout the research process by establishing different moments of analysis –themselves grounded by theoretical developments– and that cover specific aspects or dimensions of phenomenon. It is then that through the implementation of the full-sequence of each of the moments of analysis how a more comprehensive view of such phenomenon is developed. As mentioned before in the preceding section the ‘layering’ architecture of the heuristic-analytical device seeks not only to offer a specific explanation of a particular aspect of the phenomenon

under study, but to actually probe deeper into the overall phenomenon and thus inherently helping to validate the findings.

Although the case study research is not truly a comparative exercise, part of the research subject and problem inherently implied the need to establish a comparison between two research samples, the CONAGUA COTAS and the State of Guanajuato COTAS. This comparison not only served to highlight the differences between both 'initiatives' regarding their path of institutional development, but also helped to validate the argumentative interpretation based in the theoretical propositions orienting the investigation. One last source of internal validity is the use of different data sources that support the development of argumentations to respond to the different research questions. In previous sections of this chapter I develop a description of the fieldwork and data collection sources. It is then that through the above pathways it was possible to arrive at the production of an evidence-based argumentation (i.e. an inference) about the phenomenon under study.⁵⁶

Regarding the reliability of the research strategy –that is of demonstrating that the operations performed during the research process could, in principle, be replicated, and if so replicated could produce the same findings– efforts were made throughout the thesis to clearly establish the *explanandum* and then the research pathway used to develop the *explanans*. In my opinion the presence of the heuristic-analytical device also supports a clear understanding of the research operations made to address the research questions and support the development of the descriptive and explanatory narratives. In the preceding section of this chapter I explicated in detail the research process and established the sources of data and information. Throughout the empirical chapters efforts were made also to establish the sources of data and information that were harnessed to develop the argumentations presented in each of the sections.

As mentioned above case studies pose challenges in terms of generalisation, both statistical generalisations –producing inferences about other research samples with

⁵⁶ One aspect is relevant to mention, because it helped the PhD research processes benefited from the organisation of the VIII National COTAS Meeting in State of Guanajuato last August. During this Meeting, I was able to interview and have also informal conversations with a great variety of stakeholders. As such this situation helped to verify the tendencies and opinions. Also, as already mentioned, during this Meeting, it was possible to co-organise a focus group, a situation that also help to ascertain tendencies and identify different opinions.

the evidence generated from the one– and analytical generalisations –confirming, complementing or rebuking theoretical propositions from the evidence generated from the case study. In this particular situation it is complicated to provide an in-detail and fully evidenced-based statistical generalisation (i.e. for example in terms of the attainment of democratic effects of the Laguna-Seca COTAS), but it is possible to indicate that there is high probability that the rest of the COTAS are experiencing the same types of prospects and challenges than the COTAS in the State of Guanajuato. In the case of analytical generalisation I believe that it is possible to consider that the evidence generated from this doctoral research confirms a number of theoretical propositions. These generalisations will be presented at the Overall End Comments Chapter –chapter 8.

4.3.Ethical and Other General Considerations

Ultimately, case study research is about the experience of people in relation to the phenomenon under study, that itself is the setting –or has been the setting– of their own everyday environments. Accordingly, when carrying out case study research it is necessary to maintain high standards of integrity, responsibility and accountability to the research’s participants and to what is reported about the social phenomenon they are part of. Researchers should be aware of any potential ethical difficulties or dilemmas arising from their work, especially in relation to three problems: the researcher/participant relationship, the interpretation of data and the research design itself.

In terms of the researcher/participant relationship the researcher should be aware of any potential problems or conflicts that may arise by the use and disclosure of potential damaging or strategic information provided by different informants. This was very much the situation of my case study research. The Mexican water polity is a ‘highly politicised environment’ where all forms of power relationships manifest between stakeholders. The role of the State is extremely contradictory and ‘harsh’ and thus, generally speaking, stakeholders take extra care of being prudent about the considerations and opinions they share openly, as well as about the information that they are readily available to reveal. Definitely the State casts a shadow that is perceived and managed differentially by different stakeholders, as there is the perception that people may experience reprimands or consequences. Also the nature of the research subject and the research problem is contentious, a situation that had an impact in terms of primary data collection. This situation definitely complicated the

research process and demanded from my side to follow a standard protocol of engagement with all of the potential informants/participants. This protocol is based in three ethical principles: autonomy, opportunity and justice (Golafshani, 2003).

Autonomy establishes that all informants/participants have the right to be informed about the research study, have the right to freely decide whether they participate or not in the study, and have also the right to withdraw at any time without any form of penalty. During my research I abided to this important principle and in all cases I disclosed the nature of my interests during interviews, informal meetings, and of course the focus group. I was confronted with different reactions, but in most cases, for example, interviewees/participants did not approve of the use of tape recorders and preferred having the interviews with me only taking notes. Also the interviewees accepted to be referred to in the actual thesis document –and as part of other sources of information and insight–, but preferred not be quoted.

‘Opportunity’ considers that need for the researcher to exercise a criteria of inclusiveness, that is for all affected stakeholders to have the ‘right of voice’ if so desired. This situation prompts the researcher to take extra care in enabling the opportunity for all stakeholders to participate, and for their opinions to be truly and accurately reflected in the PhD thesis or any other written piece that uses information shared by them. This in principle seems ‘easy’, but at times may also be complicated. For example, during my fieldwork it was relatively easy to approach certain individuals –like for example the COTAS’s Governing Board Members or high-level civil servants at CONAGUA–, but this is not so much the case with small-landholders, *ejidatarios* and mid-level ranking officers at CONAGUA. In their case, more extensive assurance needed to be given to entice people to participate, and also demanded specific outreach efforts, like travelling to their workplaces, offices and outposts. Accordingly, efforts are also made in the thesis to accurately reflect the situations, opinions and insights of the stakeholders, and particularly also that of the interviewees/participants.

In terms of justice, this principle refers to equal share and fairness. This entails avoiding any form of exploitation or abuse of the interviewees/participants during the research process. This principle is operationalized during the research process by recognising the vulnerability and the risk that each participant is taking and that may be derived or generated from their actual participation in the research process. For example, in the case of my research I was adamant to respect the wishes of the

groundwater users that participated in the focus group that no government authority should be present during the session, and in order for them to express their 'true' opinions and feelings about the situation regarding the groundwater problems faced by them, and about the challenges and prospects of the COTAS in the State of Guanajuato. I took also care of assessing the vulnerability of civil servants at CONAGUA and of basically removing any risk for reprisal for them.

The interpretation of data is also subject to the principle of opportunity, that is that due care needs to be made not only in reflecting a true account of the facts and opinions, but also of reflecting the situation and opinions of the marginal and vulnerable stakeholders. Again efforts were made to abide to this principle and devote attention to description of situations and conflicts that affect marginal and vulnerable groups. A great part of this effort is included by the application of the fourth moment of analysis, and also the sixth.

There is also one other important consideration to make, the issue of bias. This consideration manifests in a significant way in the case of my research, and because of my closeness and level of involvement to the research subject and problem. On this, I have to say that is possible that the focus of the PhD research was influenced by years working as civil servant in the CONAGUA. As a civil servant I gained inside understanding of the role and might of the State and its capacity to influence socio-environmental transformation. I also came to understand some of its more important and damaging drawbacks and contradictions. Indeed, this situation is what prompted me to scrutinise the role of the State in the Mexican water polity. This intention only harbours a sincere interest in developing a scholarly understanding about the social phenomenon under study, but if I am truthful I was –and I am– also interested in finding ways to further the process of State-transformation in ways to make it more supportive of meaningful of greater social participation/involvement, stakeholder cooperation, democratic practice and environmental sustainability. That is to say that I am also interested in deriving policy recommendations from this doctoral research.

Another comment seems pertinent also, this time from my professional position as a consultant for the CONAGUA. I am currently participating in a 'task force' to design and implement a new set of reforms in the Mexican water polity. We have been asked to explore ways to strengthen Mexico' water security and also groundwater management. Therefore, the insights and the knowledge that I have gained are being extremely useful for this endeavour. I have hopes that I will be able to convey

–as a member of this task force– some relevant policy recommendations that can strengthen the role of the COTAS in groundwater management, and also that can help support the democratisation of the Mexican water polity.

Lastly, UCL encourages PhD students to be aware of any ethical and professional issues involved in carrying out social research and coursing a post-graduate degree. In this sense UCL encourages PhD students to ascribe to a form of ‘code of ethics’ that although not intended to be prescriptive, seeks to raise awareness and develop the student’s criteria to conduct social research. UCL encourages their research students to also acknowledge important considerations regarding plagiarism and research misconduct. Clear information on the UCL Graduate Research Degree’s Code of Practice can be found at:

http://www.grad.ucl.ac.uk/codes/CoP_Research_12.pdf

4.4. A Word on the Research Inquiry Paradigm: Critical Realism

The research inquiry paradigm adopted to carry out social research investigations contains important assumptions about the way in which we view the world, what is the form and nature of reality and what can be found out about it –the ontology–, and also the way in which we approach its knowledge, that is the relationship between the knower and what can be known –the epistemology. Both ontology and epistemology are related, that is to say, once the ontology is defined, the epistemology follows. The selection of a research inquiry paradigm will, in turn, support the definition of the research strategy and the research methods used by a social researcher (Guba and Lincoln, 2005). In this case the research paradigm supporting the current PhD research investigation is that of critical realism, as opposed to for example positivism/empiricism or interpretivism. As such, critical realism represents an alternative to traditional positivistic and interpretivist approaches to the social sciences (Archer, Bhaskar, Collier, Lawson and Norrie, 1998).

Briefly, positivism is oriented at studying an ‘observable reality’ that is independent from the researcher and driven by immutable laws and mechanisms. This reality is considered independent, as it is neither affected by the researcher nor affects him or her throughout the research process. Accordingly, after observing such reality, the researcher produces credible law-like generalisations that may be similar to those produced by natural or physical scientists. A positivist research strategy will first

establish a base-line theory and develop a hypothesis to corroborate, disprove, or qualify that theory. This process will lead to the development/complementation of theory, and then to further theoretical elaborations, through the continuation of this research cycle. A positivist will be strictly concerned with 'facts' that are captured through a 'value-free' stance that allows for an 'objective' interpretation of such reality. This situation will allow values and biases not to influence research outcomes. A positivist will use a highly structured methodology in order to facilitate replication and the emphasis is mostly placed on quantitative data collection (Guba and Lincoln, 2005; Lincoln, Lynham and Guba, 2011).

Interpretivism, on the other hand, considers that it is impossible for the social researcher to grasp an observable reality independently from him or her; hence, social reality is grasped through symbolic meanings. Interpretivists argue that social reality is simply too complex to be able to be reduced into law-like generalisations. Interpretivism is very much concerned with understanding the social world through the knowledge and the understanding that social actors have of its symbolic meanings, so in this sense, the researcher must adopt an empathic position with his/hers research subjects. For interpretivism, because reality is so complex and unravels in so many different ways, making generalisations is not so much of a concern due to unfeasibility (Guba and Lincoln, 2005; Lincoln, Lynham and Guba, 2011).

Critical realism claims that it is not possible to establish a comprehensive understanding of social phenomena, and that knowledge, regardless of any form of theoretical and methodological thoroughness, is fallible. So in this sense, all social-scientific accounts of reality are only partial accounts of a particular phenomenon that researchers choose to highlight for various purposes. These accounts are only partial, because this reality is in constant flux. In short, reality is assumed to exist, but to be only imperfectly comprehended, because of flawed mechanisms to apprehend it and due to the fundamentally intractable nature of phenomena. Critical realists consider, as a basic tenet, that reality exists, and that it is possible to conceptualise and to make theories to attempt to describe it. In fact, we apprehend reality through these theories and concepts, in turn describing the natural order, the events and discourses of the social world (Danermark, Ekstrom, Jakobsen and Karlsson, 1997; Lincoln and Guba, 2003).

Most importantly, critical realism supports the view that we can only understand and transform the world if we identify the underlying structures behind social events and discourses, but that these structures in themselves are not necessarily obvious or spontaneously apparent. Critical realists consider that there are three layers or domains of reality –a very important difference from positivist/empiricist and interpretive approaches: the empirical (i.e. the level of experiences), the actual (i.e. the level of events) and the real (i.e. the level of the underlying mechanisms). This doctoral research seeks to address these three layer or domains. Wuisman (2005) explains some aspects of the critical realist ontology:

“The critical realist ontology implies that social reality is neither equal nor explainable exclusively in terms of the empirical. Instead scientific explanation of social phenomena necessitates a search in the underlying layers of reality for specific mechanisms that generate the particular events taking place and which, in turn, to a greater or smaller extent, may be experienced through our senses.” (Wuisman, 2005:368-369)

Accordingly, at the domain of the empirical we can make observation of ‘experiences’, meaning visible observations of social phenomena. These experiences, in turn, constitute part of the events, which we can identify at the domain of the actual, and that are in turn the outcome of the mechanisms operating at the domain of the real. Each of these levels has the capacity to change the researcher’s understanding of what is being studied, so critical realists argue for a social research capable of undertaking such multi-level studies (Danermark, Ekstrom, Jakobsen and Karlsson, 1997).

Epistemologically speaking, the aim of critical realism is to explain the relationship between experiences, events and mechanisms and to focus more precisely on such mechanisms. Accordingly the critical realist perspective emphasises questions on how and why a particular phenomenon came into being, got its specific character, unravelled in such a way, and produced such outcomes, within a particular time and space. The emphasis of critical realism is on the explanation of the constitution of empirical phenomenon and not really to give predictions. For critical realism theory plays a paramount role in the manner in which reality is approached to later be analysed and understood. As such the understanding of reality is theory-laden and concept-dependent, as the theories and concepts that a researchers use determines the type of research outputs produced (Danermark, Ekstrom, Jakobsen and Karlsson, 1997).

At this point, it is important to refer to the modes of inference generally used in social research: deductive and inductive. A deductive approach works from the more general to the specific, which is why it is sometimes called a 'top-down' approach. Accordingly, a deductive mode of inference seeks to approach a research problem through the use of theory connected to the description and explanation of that problem. With the use of theory, the social researcher will then develop a suitable analytical framework to be later deployed to guide the empirical observations, and orientated at testing predetermined hypothesis. Indeed an important part of the deductive mode of inference is the design of a workable hypothesis to be later tested through empirical observation. This process will eventually lead to the confirmation, rebuttal or qualification of the hypothesis, with the implied consequences on the theoretical development (Patton, 2002).

An inductive approach moves from specific observations to broader generalisations and even theories. This approach is also referred to as a 'bottom-up' approach, which hence begins with the careful and in-depth observations of particular phenomenon, before later attempting to detect some form of pattern and regularities. The social researcher will then work towards establishing a tentative hypothesis that should be explored –by going backwards or top-down again– to finally develop some form of general conclusion or theory. Inductive approaches are criticised as not being able to produce valid scientific knowledge, because there is simply no amount of sensory observations that can be established that will suffice to draw valid universal conclusions about a social reality. It is important to mention that frequently critical realist social researchers will combine both approaches. That is to say they work first under the principles of a deductive approach, but through the engagement with the empirical research, it is possible to also benefit from implementing an inductive approach. This, in principle, could help fine-tune the theoretical and analytical framework, the research questions and the hypothesis; adjusting in a positive way the research approach (Danermark, Ekstrom, Jakobsen and Karlsson, 1997, Wuisman, 2005). In the case of this PhD, this is partially a reason why the analytical device is a heuristic-analytical device.

For critical realists there is a third mode of inference that is termed "retroduction" (Danermark, Ekstrom, Jakobsen and Karlsson, 2002). Retroduction is aimed at going "behind" empirical and observable events in an attempt to capture the underlying structures and mechanisms that produce them. Accordingly, knowledge about social

reality can only be attained –and only partially, as already stated–, if the researcher aims to capture the “transfactual conditions” for the events and phenomena under study, that is to get at the generative drivers or mechanisms of influence. Retroduction is about advancing from one thing (the empirical observation of events) and arriving at something different (a conceptualisation of transfactual conditions). It is by gaining an understanding of these transfactual conditions that the social researcher can approach attempts to generalisation. It is important to mention that critical realists do not consider each mode of inference to be totally exclusionary of each other; on the contrary a researcher may go through them in the course of the different research moments in an attempt to gain more precision and relevance. Indeed one objective of this PhD is to gain insight about the transfactual conditions affecting the role and orientation of the Mexican state in the establishment and institutional development of the MSPs for groundwater management.

Still, regarding the feasibility of how to make generalisations, critical realism questions the capacity of social research to be able to produce trustworthy generalisations regarding empirical phenomenon. This is mainly because the world is constantly changing, and causalities or drivers of social change are in constant flux. Notwithstanding, if generalisations are attempted, the researcher should be careful of taking into account the domain of the deep structures of reality. Consequently, social research attempting generalisations should not be limited at the description and analysis of ‘empirical facts’, instead it should attempt to identify and gain knowledge about such structures, as the constituent and dynamic mechanisms of history (Steinmetz, 1994; Danermark, Ekstrom, Jakobsen and Karlsson, 2002).

Critical realism also holds a specific position regarding the agency-structure debate. According to this debate, society manifests through two broad and interrelated phenomena: agency (i.e. that is people acting) and structure (i.e. social structures structuring people’s agency). This debate offers three main positions. The first one, termed the ‘social fact paradigm’ where all influence moves from structure to agents in a rather deterministic way –thus the object of social research focuses on those structures–; the ‘agency paradigm’ where agents are seen to act following their own objectives and goals according to their interpretations and beliefs –thus the object of study are perceptions and intentional behaviour– and lastly the ‘integrative paradigms’ that seek to join agency and structure through some form of relationship; of which Giddens’ “structuration theory” is the most renowned (Giddens, 1984). Briefly, for Giddens, structures do not exist separately and independently from

agents, both are the medium and the outcome of social action through a recursive process; and most importantly they can only be conceptualised in relation to each other. Actors through a process of “reflexivity” consciously seek to alter such structures in the path of social change (Giddens, 1984; Danermark, Ekstrom, Jakobsen and Karlsson, 2002), at the same that those structures influence their social agency.

Critical realism offers a different approach to this debate; something labelled analytical dualism (Archer, 1995). Analytical dualism recognises the interdependence of structure and agency, but each work in a different timescale, so at any given moment an existing structure will definitely constrain the agency of a social actor, whose interactions will eventually reproduce or transform such initial structure. So while structure and agency are independent, it is possible to unpick them analytically for research purposes and by doing so to clearly investigate how structural factors shape subsequent actions. Consequently it will be possible to give accounts on how structure and agency phenomena interlink over time. Accordingly social process are constituted through an endless process of interactions, something called the morphogenetic sequence (Archer, 1995).

Lastly, critical realism is emphatic about the influence that the researcher’s values play in social research. This is because they consider that the researcher’s values are always present throughout social research. So at all times, the researcher will demonstrate his or her values. For example by choosing one topic or theory, rather than another, suggests that a researcher thinks that such topic is more important than another, or that theory is more useful. Thus, for critical realism, our research approach, strategy, and methods are a reflection of our values (Danermark, Ekstrom, Jakobsen and Karlsson, 2002; Guba and Lincoln, 2005).

Chapter 5: The Neoliberal State-transformation Process: State Projects and State-strategies in the Mexican Water Polity: *The Second Moment of Analysis*

5.1. Introduction

This chapter is about the long-haul State-building and more recent Neoliberal State-transformation processes in the context of the Mexican water polity. This historical process produced three distinct Statehood formations, including in chronological order: the Nation- and State-Building, the Developmental-Interventionist, and the Neoliberal Statehood formations, the last of these being a central concern of this PhD. Each of these Statehood formations has attempted to establish and stabilise different State projects through the design and implementation of a range of State strategies. All of the aforementioned Statehood formations respond to particular water resources management challenges through the implementation of particular State-strategies oriented at organising socio-political processes towards the pursuit of specific ends. So, political ideologies, policy ideas, political forces and socio-political struggles have influenced the establishment and stabilisation of each of the Statehood formations.

In the context of this PhD document, it is not possible to develop an in-detail description of the Nation- and State-building Formation and the Developmental-Interventionist State Formations, but still it is relevant to present some brief notions of each, because they have somehow exerted influence over the definition and development of the Neoliberal Statehood formation (i.e. they have produced some path dependencies). Afterwards, I will then provide a description of the Neoliberal Statehood formation in the water polity, its State-project, and strategies. I will devote particular attention in developing a succinct understanding of some of the most important Neoliberal Statehood State-strategies, to later focus in a more in-detail description and analysis of the establishment of socio-political water governance arrangements, represented in the context of the Mexican water polity by the MSPs for water resources management at the river basin, micro-basin and aquifer level. The elaboration on such State-strategies will provide some historical and contextual understanding regarding the Neoliberal Statehood formation and its attempt to implement a deep transformation in the relationships between the State and society

throughout water resources management.⁵⁷ Overall, in this chapter I will reflect on how the Neo-liberal Statehood Project implemented a widespread set of State-strategies in an extremely ‘orthodox manner’ without really carefully pondering about the ‘contextual conditions’ in the Mexican water polity and also without any consideration about the need to develop a ‘transition process or strategy’ that would have created more enabling conditions for such strategies to stabilise and produce more positive outcomes. The drawbacks in the implementation of some of these State-strategies have proven them highly contradictory; a situation that leaves room to more radical questionings regarding to the Neoliberal ideology’s assumptions.

At a general level, several scholars and practitioners conclude that the Mexican water polity is currently experiencing a ‘governability’ crisis as a result of the Neoliberal State strategies, that requires again a systemic change to address a series of mounting water resources management, water supply and sanitation and water security challenges. Whether the Mexican water polity can achieve this systemic change or not is an open question, but there are very strong path-dependencies that seem to be difficult to break and that doing so would require, in my opinion, broader socio-political and economic changes that are not clearly foreseen in the near horizon. I concur with other scholars such Aboites, Cifuentes, Jiménez and Torregorsa (2008) that the role of the State in this process has been critical and remains critical in the future.⁵⁸

⁵⁷ The reader will notice that these Statehood formations and State projects are not exclusive to the water polity, in reality they are pervasive to the wider country polity, and so they are reflection of national level phenomena. Still certain sectorial polities may manifest to a lesser or greater extent the influence of this national level Statehood formations. I consider that the water polity is very much the case of a ‘great level of influence’, as I will describe later in this chapter. This is to say that in the case of the Neoliberal Statehood formation the neoliberal policy ideas and strategies were implemented in a very ‘orthodox’ manner with highly consequential impacts in the Mexican water polity. In an interview with Dr Dr Maria Luisa Torregrosa, the first a water historian and the second an environmental sociologist specialised in the Mexican water policy sector, they both confirmed this opinion, and encouraged me to continue with the orientation of this doctoral research. I am grateful for this encouragement. An interesting contribution to the debate on the implementation of Neoliberal reforms in the Mexican water polity is the following: Aboites, L (2009) *La decadencia del agua de la nación: estudio sobre la desigualdad social y cambio político en México en la segunda mitad del siglo XX*, México D.F, México, Colegio de México.

⁵⁸ In interviews with former senior level civil servants in the CONAGUA at the level of General Directors, Deputy Directors and General Managers that were in charge of the design and implementation of some of the Neo-liberal State-strategies in retrospect they consider that indeed the implementation of the Neo-liberal State-strategies—although they do sometimes do not refer to them as such—produced important drawbacks and contradictions. For most of them there are three central aspects that negatively affected the implementation of a more carefully thought and incremental reform process: the influence of the World Bank in terms of conditional lending, the influence—the “pressure”—of the President’s Office that determined in many ways the orientation and pacing of the reforms also, and the veto-power of the

This chapter is divided in four broad sections. The first section presents a brief description of the Nation- and State-building Statehood formation in the Mexican water polity. The second section presents also a brief description of the Developmental-Interventionist Statehood formation in the Mexican water polity. The third section presents a more in-detail description and analysis of the Neo-liberal Statehood formation in the water polity, elaborating succinctly on the general characteristics and impact of the Neo-liberal ideology in Mexico –in a first sub-section –to later concentrate in describing and commenting on several Neo-liberal State strategies, including amongst them: the establishment of a specialised apex-institution for water resources management; the territorial administrative re-organisation of the water polity; the creation of a national water planning and programming process; the decentralisation of WS & S services; the opening to private sector involvement; the transfer of irrigation districts to water users; the creation of a property rights system and water markets; and the establishment of MSPs for water resources management –the river basin councils and its auxiliary bodies. I will devote greater attention to this last Neoliberal State strategy, as it is one central element of the research subject. Finally, some end comments will be presented in a final section of this chapter.

5.2. The Nation- and State-building Statehood Formation in the Mexican Water Polity: A General Overview (period: the end of the 19th Century to the Agrarian Reform in 1915)

The Nation- and State-building Statehood Formation in the Mexican water sector at the beginning of the 19th century responded to a State-project principally oriented at gradually positioning the central-State at the centre of authority in terms of the control over water use across all the country's territory (Aboites, 1998). It is important to mention that water was at that time managed locally by local authorities, landowners, religious and local communities. Central to this State-project were two State-strategies: the push for the centralisation and federalisation of State-power in matters

Secretary of the Treasury and Public Credit (*Secretaría de Hacienda y Crédito Público, SHCP*), who ultimately took critical decisions about the amount of resources to be used and when to be used in the implementation of each of the State-strategies. It is important to establish two important facts. The first one is that 'presidentialism' in Mexico is deeply rooted; that is the concentration of immense amounts of power in the President and the Presidential Office. The second one is that a central aspect of Neo-liberalism as State project was to also concentrate great amounts of power in the SHCP, and the careful appointment of 'Neo-liberal technocrats' that had studied in American Universities, such as Chicago University, Yale, and Stanford, and that were amenable to Neo-liberalism.

concerning water resources management and water supply and sanitation (Aboites, 1998, Suárez, 1998). These strategies sought to recede the power of local authorities, large landowners and stockbreeders over water use, as well as to disentail religious privileges over land and water resources; all in favour of the central and federal State and with a view of organising society in favour of the creation of a 'polity of equals' and a 'strong' federal State (Aboites, 1998, Suárez, 1998).

A number of important State-strategies were designed and implemented during this period of Mexican history and to respond to the requirements of the Nation and State-building Statehood formation project. The first one was the design and enactment of the necessary legal frameworks to incipiently develop and expand –in the territory– the normative bases of the central State's authority, and to build the necessary State-apparatus to apply the rule of law (Romero, 2005). The first laws dealing with water use were enacted in different points in time, mainly seeking to gradually ascertain that water resources were to be considered public property, and thus establishing the conditions and 'parameters' for private use. A second important State strategy was aimed at chartering the territory to characterise scientifically its water resources, as well as to identify the main and the largest water users (Sánchez Rodríguez, 2009). This, in turn, helped to make strategic decisions regarding the establishment of federal-regional offices to deal with incipient water use conflicts, and to foster also some incipient federal control over water resources management across the territory. Overall, the central concern was to begin to expand the reach of the central-State in matters concerning water resources management across the whole of Mexico's territory (Sanchez Rodríguez, 2009).

Interestingly, this centralisation and federalisation pursuit was marked by important political struggles between liberal and conservative ideologies, the first seeking to forge a range of political and social rights over water use and for the individual citizen, the second to maintain a range of inherited privileges and economic stations for the aristocracy and the politically powerful classes. Eventually, the modest progress made in the creation of the liberal political ideal of a 'polity of equals', a long period of dictatorship –el *Porfiriato*–, and the stagnant socio-economic conditions of a great majority of peasant populations across the country led to the Mexican Revolution in 1910 (González y Gonzalez, 2011). It is worth mentioning an important form of institutional development resulting from this period of political turmoil and social struggle, a form of political conquest in favour of the individual citizens *vis à vis*

the State power: the Constitutional Rights Trial (*el juicio de amparo*).⁵⁹ The Constitutional Right Trial is a legal figure that has accompanied Mexico's political history and that is still a robust legal resource for water users –and more generally Mexican citizens– against the vagaries and the abuse of authority of the Mexican State. When water users are affected in their constitutional rights to use water resources to sustain their livelihoods –and if other conditions apply– they use this institutional-legal resource to defend themselves from the State. On this Birrichaga (2009) elaborates:

“In Mexico, with the objective of safeguarding the individual interests from any inappropriate or abusive government action, an innovative and progressive legal figure was created in 1861: the constitutional rights trial (*juicio de amparo*). Since 1861, the constitutional rights trial was conceived as an open political trial that gives way to an interpretation of the law, something that allows any citizen that considers his/her human and civil guarantees transgressed by the State to ask a federal judge for a constitutional rights trial. (...) Since then the constitutional human rights supports citizens queries with the State with regards to the use and expropriation of water rights.” (Birrichaga, 2009:47) (Translation: mine)

After the Revolution, the central State-strategy was oriented at peace keeping and Nation-building, that is, at the pacification of territories through land redistribution and the water resources that came with it. Through the passage of time the Nation- and State-building Statehood formation gradually consolidated and stabilised the centralisation and federalisation of State-power, making the central State the final guarantor of water resources and the official conflict resolution instance across the territory (Molina Enriquez, 1978; Garciadiego, 2004; Castañeda, 2005). Another important form of institutional innovation worth mentioning as part of the Nation- and State-building Statehood formation is the creation of the *Ejido*, one form of common-property land-holding that supports productive activities by local peasant and indigenous communities and protects them against external pressures to sell or abandon their land (at least until the Neoliberal Statehood formation when the legal parameters of the *Ejido* changed). This form of institutional innovation supported the disintegration of large inherited landholdings (*latifundios*) and served as a land

⁵⁹ In an interview with this scholar, his consideration is that the '*juicio de amparo*' probably is the most important legal instrument that has served Mexican citizens to face the 'abuse' of the State's authority and power. Actually, he pointed out the '*juicio de amparo*' has been a central recourse for workers and peasants in their social struggle against Neoliberal labour, social security, land tenure, education and water reforms. An interesting, brief yet comprehensive presentation of the Juicio de Amparo and its impacts in safeguarding citizens' guarantees and the rule of law is: González Cosío, A (1994), *El Juicio de Amparo*, México City, Mexico, Porrúa Editorial.

redistribution mechanism to support local communities in their modernisation process, and with the aim of creating a modern capitalist small-sized holding agricultural class. The 1917 Constitution and several other sectorial laws and by-laws norm over the institutional design structure and the operations of the *Ejid*os.

Overall, the centralisation and federalisation State-strategies responded to the need to gradually build the Mexican Nation, a federal State-authority and an incipient State-apparatus. Generally speaking, it is possible to consider that these goals were somewhat and gradually achieved. During the next Statehood formation both strategies were also pursued, but with greater 'might' and strength, and so in this sense, the centralisation and federalisation of the Mexican water polity will become one of its central or 'structural' characteristics. The following section on the Developmental-Interventionist Statehood formation will explain this trend in more detail.

5.3. The Developmental-Interventionist Statehood Formation in the Mexican Water Sector: A General Overview (From the 1915 to 1975)

The Developmental-Interventionist Statehood formation phase includes from the Agrarian Reform in Mexico (1915-1934) and up to Mexican modernity –the period called Stabilising Development (*Desarrollo Estabilizador*) (mid 1970s) (Cosío Villegas, 1995; Lorenzo Meyer, 1995)⁶⁰. This Statehood formation sought as a central State-strategy to continue with the centralisation and federalisation process. It also actively pursued a process of landownership and water redistribution in order to enable socio-economic development, as one of the main concerns was to tackle massive rural poverty (Molina Enriquez, 1978; Blanquel, 2011). A fundamental step in the consolidation of the Developmental-Interventionist Statehood formation was the creation in 1926 of the National Irrigation Commission (*Comisión Nacional de Irrigación, CNI*). The CNI had a number of important responsibilities, including: the development of water supply infrastructure –mainly the perforation of wells– to better the health and sanitary conditions of the population. In order to support this endeavour the CNI established federal water boards that developed medium sized and large WS & S systems across the country's territory, and also made efforts to

⁶⁰ Interesting readings about this historical period in Mexico are: Ortiz Mena, A. (1998), *El Desarrollo Estabilizador: reflexiones sobre una época*, México D.F. Mexico, Fondo de Cultura Económica; Veron, R (1977), *El Dilema del Desarrollo en México*, México D.F., México, Editorial Diana, and Bértola, L and J A Ocampo (2013), *El Desarrollo Económico de América Latina desde la Independencia*, México DF, México, Fondo de Cultura Económica.

coordinate with local-municipal water boards in order to develop smaller scale local systems (Sandré, 2005).

The CNI was also entrusted with supporting irrigated agriculture aimed at enabling local production and consumption, and mostly by providing irrigation infrastructure to the old and newly created *Ejid*os, and Irrigation Districts, Irrigation Units and Technical Rainfed Districts –other important forms of institutional innovation of this Statehood formation.⁶¹ With these actions the State began to gradually expand its geographical spread, technical capability and political influence over the rural and peasant populations. Lets us remember that at time that Mexico’s population was mostly rural and represented an important political force to keep appeased. Additionally, other policy instruments began to be used such as subsidies, tax exemptions and government soft lending –through the Ejidal Bank (*Banco Ejidal*), and with the State-strategy of creating an agriculturalist middle class that could work under the most appropriate organisational, technical, financial and even political conditions. As already mentioned, this peasant middle class, ideally, would eventually become the basis of a socially progressive and productive agricultural sector in Mexico. It is important to establish also that this form of State-led development support began to engender a very particular type of relationship between the Mexican State and civil society: Mexican clientelism and corporatism. These two forms of socio-political relationships gradually became an integral part of Mexico socio-political history and political culture. It is worth mentioning that clientelism and corporatism are still very much present in Mexico, even so in the context of the Mexican water polity, affecting the rational allocation of scarce financial resources, the distribution of scarce water resources, and ultimately the overall democratic performance of the water polity (Kloster and de Alba, 2007).⁶²

⁶¹ More comments will be made later regarding the Irrigation Districts, because they represent an interesting form of institutional innovation where greater participation and cooperation between stakeholders is sought to achieve more productive agricultural practices.

⁶² Clientelism is a type of socio-political relationship where the exchange of goods and services provided by the State involve an implicit or explicit *quid-pro-quo*. Throughout Mexican history the State has established this form of asymmetric relationship with groups in civil society that eventually provides ‘sympathisers’ with certain benefits, against political and electoral support. The ultimate exchange being votes, that in turn ensures the reproduction of the political and economic system. Corporatism or corporativism refers to the socio-political organisation of society by major interest groups or corporate groups such as labour, business, agricultural, industrial, and the like. Also through history, the Mexican state has fostered corporatism as preferred form of socio-political relationship, because it facilitates the design and implementation of public policies and the pursuit of State strategies. An interesting reading on the subject matter is: Hernandez E. (2006), “El Clientelismo en México: Los Usos del Políticos de la Pobreza”, in *Espacios Públicos*, febrero, vol. 9, no. 17, Universidad Autónoma de México, pp. 118-140. An interesting interview with Dr.Karina Kloster confirmed

Approaching the 1950s there is a slight change in the State-strategies of the Developmental-Interventionist Statehood formation. Mexico was modernising (urbanising and industrialising extremely fast), and thus, it was necessary to address other important water resources challenges. Water resources management started to focus on taking water to urban and industrial centres, as well as to large-scale irrigated agriculture districts. Developing and managing more complex WS & S systems was also another central priority. Very relevantly, the State devoted important amounts of resources to the construction of dams and the development of hydropower generation (Oribe, 1970).⁶³

The Secretary of Hydrologic Resources (*Secretaría de Recursos Hidráulicos, SRH*) was created in 1947. At that time in history and according to scholars, the SRH was probably one of the most politically influential, financially endowed, and technical capable institutions in the field of water resources management in world (Aboites, Birrichaga and Garay, 2010). The SRH was influenced by several important policy ideas that were in vogue at time, such as the notion of ‘multi-purpose water projects’ and ‘river basin regional development planning’. Innovative institutional designs like the River Basin Commissions in the United States –most predominately the Tennessee Valley Authority– that aimed to harness basin level water resources for regional development had a important influence in Mexico. Several River Basin Regional Commissions were established and with great amounts of political power and financial resources at their disposal.⁶⁴ These River Commissions transformed

the relevance of clientelism and corporativism in the water sector. Dr. Karina Kloster has studied this phenomenon in detail, and focusing in the access to WS & S services in cities. Please see: Kloster, K and F de Alba (2007) “El agua en la ciudad de México y el factor de fragmentación política” in *Perfiles Latinoamericanos*, num. 29, January-June 2007, pp. 137-159.

⁶³ Building dams and reservoirs has been central to the achievement of water security since centuries back. An interesting contribution linking water security and economic development is Grey, D and C Sadoff (2007) Sink or Swim: Water Security for Growth and Development, in *Water Policy*, Vol 9 No 6 pp 545–571.

⁶⁴ Perhaps the most important example of this form of institutional innovation was the Papalopan River Basin Commission. An interesting historical narrative of its institutional development process is provided by Poleman, T (1974), *The Papaloapan Project: Agricultural Development in the Mexican Tropic*, Oxford, UK, Oxford University Press. Also see CONAGUA (2009), *Semblanza Historica del Agua*, Mexico DF, Mexico, CONAGUA. During President de la Madrid’s term (1982-1998), the first Neo-liberal regimes in Mexico, as part of the State retrenchment and financial austerity, the River Basin Regional Commissions were terminated. This policy measure was justified as part of the efforts to strengthen federalism and re-orient the developmental role of the State, allowing from now on the market forces to determine the allocation of financial resources in the territory and the ‘future’ of regions and territories. Scholars comment that with this situation, Mexico’ ‘golden age’ of regional development planning was lost. In an interview with Dr Enrique Aguilar Amilpa, a seasoned civil servant that has played an important role in the development of the institutional

the landscape, the ecosystems and local socio-economic and cultural systems in a very dramatic ways. Aboites, Birrichaga and Garay (2010), three of the most reputed water historians in Mexico, comment on the role of the SRH in the Mexican water polity:

“With this range of functions and faculties, the Secretary of Water Resources acquired ample and direct scope of intervention over water resources management, and also had financial resources commensurable to its mandate and the objectives at its disposal. In this respect, it is important to highlight that for its operations, the SRH handled 10% of the federal budget. According to the opinion of its former directors, there was no institution in the world at that time that invested that level of financial resources. The impressive budgetary and investment capacity of the SRH responded to the growing centralisation of State power and weakening of the state and municipal levels’ treasury. The economic boom, also known as the ‘Mexican miracle’ between the 1940s and the 1970s, supported this favourable budgetary situation, which in turn furthered the support for industrialisation and the instauration of the Mexican import substitution development model.” (Aboites, Birrichaga and Garay, 2010:41-42) (Translation: mine)

Relevantly, in term of groundwater management, the 1956 by-Law on Matters Concerning Groundwater was created, defining the SRH as the institution in charge of establishing groundwater abstraction prohibition zones to control groundwater abstraction (*zonas de veda*). The SRH’s Groundwater Directorate was created in 1966, and with the mandate to develop a national inventory of wells and establish regulations to use and protect groundwater resources (Arreguin, 1998). During the next two decades the SRH gradually expanded the breath of the State in matters concerning water resources management, water supply and sanitation and groundwater management across the country’s territory.

During the final years of the Presidency of Luis Echeverria (1970-1976) the first National Water Plan (1975 NWP) (*Plan Nacional Hídrico, 1975*) was produced. This document was very influential and defined water policy making for the next 15 years. In it is possible to identify different policy ideas that are worth highlighting. At that time the 1975 NWP clearer reflected the orientation and identity of the Developmental-Interventionist Statehood formation, as it visibly stipulated the need

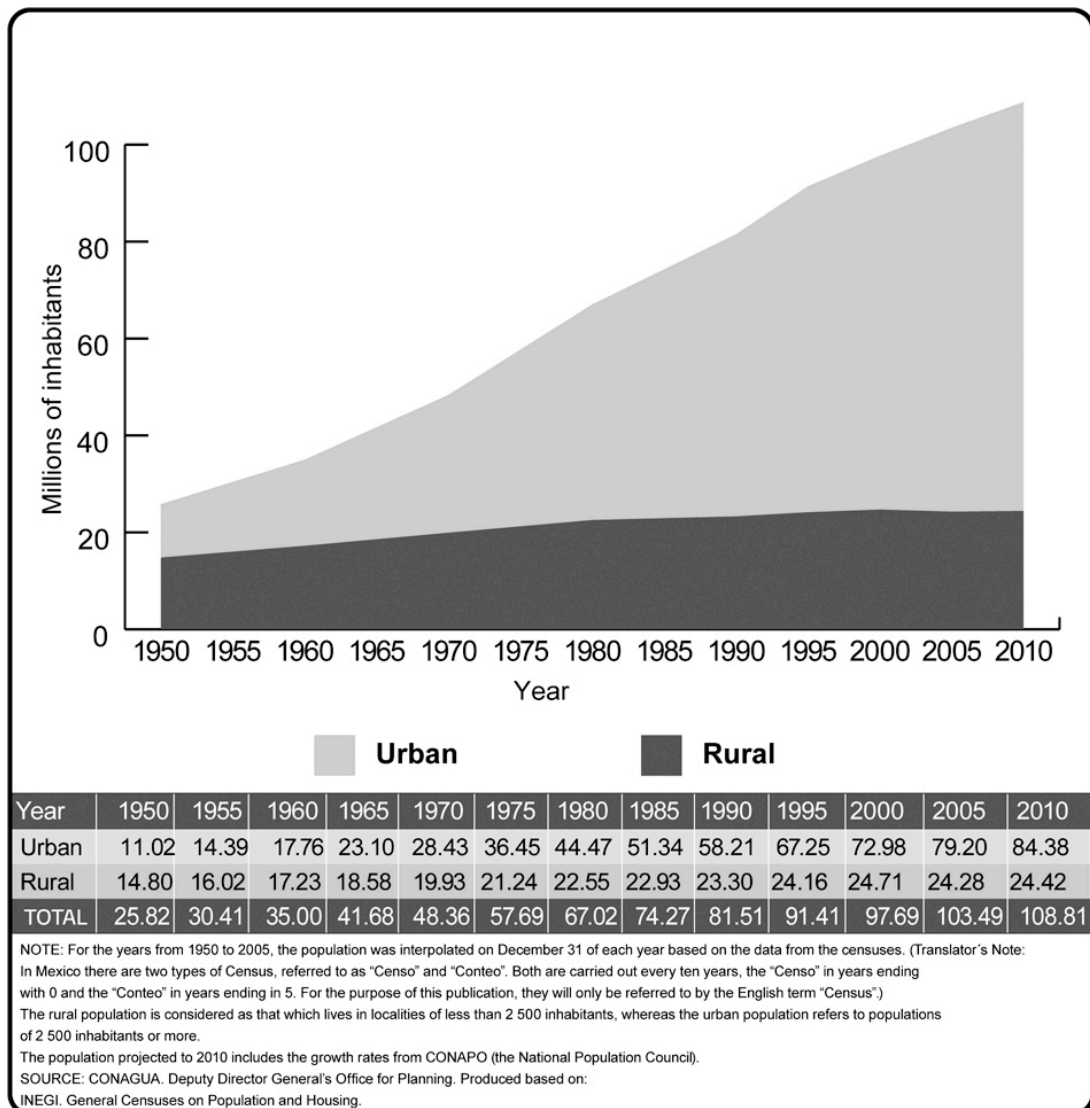
arrangements in the Mexican water polity, he shared an interesting insight on what happened with the river basin commissions. He commented that actually it was the State Governors of the states where river commissions existed who asked President de la Madrid to dissolve them, because they were competing with their political power and executive control over water resources.

to continue with an ambitious State-led infrastructure construction programme of critical water resources management & development infrastructure, such as dams and reservoirs, hydro-agricultural and irrigation infrastructure, and WS & S systems across the country. The role of the central State was clearly 'to invest' in modernising the water polity. The Plan also began to highlight the need for the creation of a specialised-apex institution for water resources management, the need to care for the environment, the need for a more integral management of water resources, the need to decentralise WS & S systems, the need to create an official water users' interest representation system, and the need to create a robust financial system for water resources management and development. Very importantly, the 1975 NWP already alerts of the perils of groundwater management over-exploitation (Arreguin and Lopez, 2008), a trend that still continues and that represents one of the main water security challenges of the Mexican water polity.⁶⁵

Under the Presidency of Jose Lopez Portillo (1976-1982) and after the country had experienced important economic crises, other ideas began emerge, such as the need for greater rationalisation in the administration of financial resources, a need to reconsider the amounts of resources allocated to irrigated agriculture and a re-orientation in priorities regarding water resources management to better support urbanisation and industrialisation processes. Consequently, the SRH was abolished in 1976, in response to a number of concerns, including amongst the most important: a clear rural-agricultural bias that was no longer a priority in terms of water resources management, and also internal disputes between water and agricultural engineers. The SRH was effectively turned it into a mere Deputy Secretary of a new apex institution, the Secretary of Agriculture and Hydraulic Resources (*Secretaría de Agricultura y Recursos Hidráulicos, SARH*). Mexico's development path and development model were changing fast.

⁶⁵ A special task force, led by Dr Fernando Gonzalez Villareal, produced the 1975 National Water Plan. In an interview with him an interesting comment was made. Actually a partnership between the Government of Mexico, the World Bank and the UNDP was established to create this task force. From then on the influence of the World Bank in the definition of the State-strategies in the Mexican water polity starts, only to gradually increase during the heyday of Neoliberalism in Mexico. Dr Villareal later became the first General Director of CONAGUA (the CNA at time), remains being a highly influential individual in the definition of the strategic orientations of the CONAGUA, and has also been a short-term consultant of the World Bank.

Figure-4. Rural-Urban Population growth in Mexico



Source: CONAGUA, 2012

According to scholars (Aboites, 2004, Torregrosa, Paré, Kloster, and Vera, 2010) this new institutional configuration in reality manifests an important tension between sectorial professionals –agricultural and water engineers–, and that was won by the later, and to clearly make the Mexican water polity distinguish between agricultural development and water resources management. Accordingly, modern water resources management will help address the new challenges, and the State will transform and re-orient its attention and resources to deal with rapid urbanisation and industrialisation trends, and to build and modernise communication infrastructure. This strategic reorientation actually meant an important transformation of the State in terms of water resources management –and with a clearer urban bias.

As the period of the *Desarrollo Estabilizador* or the ‘Mexican Miracle’ begins to dwindle, mainly because of the global economic crisis in 1974-1976, the Developmental-Interventionist Statehood formation shows signs of weakening. A massive public deficit forced the State to decrease government spending across all policy sectors, including water resources management and development. With this situation, the end of the strong Developmental-Interventionist Statehood formation started to loom.⁶⁶ When other external drivers started to exert important pressures – such as the rise of Neo-liberalism–, the process of State-transformation to a new Neo-liberal Statehood formation began, and that will have dramatic effects over the country, including the water polity.⁶⁷

5.4.The Process of State-transformation: The Rise and Consolidation of the Neoliberal Statehood Formation in the Mexican Water Sector

5.4.1.The Neoliberal Statehood Formation in Mexico: A General Overview

The Developmental-Interventionist Statehood formation began to weaken in the mid of the 1970s. As the capitalist golden age went into a crisis –at a global scale– the sustained growth that underpinned the Mexican State’s developmental and interventionist capabilities began to flounder, affecting also the rate of Mexico’s socio-economic development (Edwards, 1995, Hirshman, 1997). Putting it succinctly, this negative situation, alongside the rise of the Neo-liberal ideology –that had an important level of influence in Mexico–, triggered a gradual, but comprehensive process of Neo-liberal State-transformation. This State-transformation was characterised by a radically new State-project and the implementation of a number of State-strategies including, amongst the most relevant: a comprehensive State retrenchment and public spending curtailment measures –in fact austerity programmes–; the redefinition of the role of the State in governing –from an interventionist-developmental role to an enabling, regulatory and coordinating role–; important decentralisation and devolutionary reforms –to state and municipal levels, as well as to civil society–, the liberalisation and deregulation of the economy;

⁶⁶ In the case of the water policy sector these assertion needs to be qualified, because the CONAGUA’s budget has mostly steadily increased, allowing it to still support important investments in the water sector; an aspect that I will commented later on.

⁶⁷ Interesting readings on this determinant historical period are: Dornbusch, R and S. Edwards (eds) (1992), *Macroeconomía del Populismo en América Latina*, Mexico DF, Mexico, Fondo de Cultura Económica; Cárdenas E (1996), *La Política Económica en México 1950-1994*, Mexico DF, Mexico, Fondo de Cultura Económica; and Mancera M (2009), “Crisis Económicas en México: 1976-2008, in *Este País*, Enero, Vol. 2014, p.p. 21-30.

important privatisation initiatives; and a general redefinition of the relationship between the State and civil society –through the transition from government to governance (Babb, 2004, Harvey, 2005; Santiso, 2010).

Some of the most relevant reasons behind this process of State-transformation highlighted by political economy scholars are very briefly described in the following paragraphs (Santiso, 2005, Gonzalez, 2008; Bertola and Ocampo, 2013). The massive public debt accumulated by the State during the 1970s, and resulting from the efforts of the Mexican State to promote the oil industry –that was booming at the time– and expensive State-led development processes, eventually turned into a severe State’s budgetary crisis, that when paired with the global economic crises turned the Mexican State practically insolvent (Salazar, 2004). Initially, this State’s budgetary crisis impelled the State to pursue a gradual, but persistent austerity programme oriented at the curtailment of public expenditure across all policy sectors, and with very negative impacts over basic services provision and the general welfare and opportunities of the population (Rivera, 1986). Eventually, this overall situation gradually led to the well-documented implementation of a comprehensive package of Neo-liberal policies, promoted by the Washington consensus, and in the case of Mexico led by the World Bank. As such, the economic crises of 1976, 1982, 1986, and 1994 and the Neo-liberal influence set then the tone for a series of austerity measures, Structural Adjustment Programmes and conditional lending operations implemented by the Mexican State since the 1980s, giving way to a bold process of political, institutional and economic reforms with a profound impact in the development path of Mexico (Edwards, 1995; Santiso, 2006; Bertola and Ocampo, 2013)

Simultaneously, as the State gradually lost its spending capacities, a noticeable weakening in the State’s hegemony over different sectors of the population –and previously developed by the dominant political party in office for 70 years, the *PRI*, through corporatist and clientelist relations across the country– began to debilitate. Increasingly, social demands across the country continued to be unmet by the State, producing an important legitimacy crisis that eventually opened up to the possibility for the country’s democratisation process (Stepan and Lintz, 1996, Gonzalez, 2008). When the developmental-interventionist presence of the State diminished, the political control over important organised social groups started to weaken. Also, state Governors, when confronted with less support from the central State, began to loose the ‘centralist discipline’, and became more political active and contentious,

rallying a broad social support for 'systemic political change (i.e. in the form of the New Federalism and a broad push for a democratic transition from 70 years of one-party rule). This was the case of Mr Vicente Fox, the Governor of the State of Guanajuato, that contended for presidential elections in 2000. Several years later, Mexico's democratisation process peaked with the beginning of the enduring Mexican democratic transition that manifested electorally with the National Action Party (*Partido Acción Nacional, PAN*) taking office in 2000 and until 2012. The PAN, a right wing and technocratic party, continued to broadly support the Neo-liberal Statehood project for next 12 years.⁶⁸

It is not possible in the context of this document to refer extensively to the impacts of the Neoliberal Statehood project in Mexico, but only to say a few synthetic comments, that help to depict a general trend and prepare the ground for a more in-detail review of the Neoliberal Statehood strategies in the water sector. Throughout Mexico's history, income distribution has been mostly regressive, but throughout the Neoliberal Statehood formation, income distribution has been increasingly regressive. J. R. Jiménez (1995) reviewing the income distribution situation in Mexico in 1995 –after approximately 10 years of Neoliberalism– calculated that 60% of the income generated in the country during the last decade was absorbed by 10% of the Mexican population, and conversely 10% of the income generated was received by 60% of the Mexican population. The 1995 edition of the Forbes magazine highlighted the curious and recent presence of 24 Mexicans in the list of the top 350 millionaires in the world; one of them more recently becoming the richest man on earth.

In terms of the job market, the severe Neo-liberal austerity and contractionary measures implemented produced a virtual vertical plumb of the job market, and so studies suggest that from 1983 to 1995, the job market only generated 1.9 million of formal labour posts. During the same years, the Mexican Centre for Economic

⁶⁸ Mexico democratic transition and economic liberalisation go hand in hand, a phenomenon termed "dual transition", where economic reforms actually reinforce political reforms and *vice-versa*. For an interesting reading on this perspective please see: Gonzalez, F. (2008), *Dual Transitions from Authoritarian Rule: Institutionalised Regimes in Chile and Mexico, 1970-2000*, Baltimore, USA, John Hopkins University Press. In an interview with Dr Gonzalez focusing in the process of Neo-liberal reform in Mexico, he talked about an interesting quality of the Mexican polity system that expands into the water polity, a strong type of 'institutionalised authoritarian rule' that penetrates across all policy sectors and that on one side manages to support the implementation of hierarchical and centralist State-strategies, that may not result in effective policy outcomes, but that it is carried in a disciplined manner, and deters the implementation of other types of governing strategies based on enabling socio-political governance arrangements that are built on social participation and stakeholder cooperation.

Analysis and Forecasting (*Centro de Análisis y Proyecciones Económicas de México*) (1995) estimated that almost 12.5 million joined the informal economy. A similar study by Banamex (*Banco Nacional de Mexico, Banamex*) (1995) concluded that only 1 in 10 labour posts had been generated by the formal labour market.

In the same year a government poverty index study underlined that 40% of the Mexican population lived in poverty and extreme poverty conditions, of which rural populations represented 70%. In the rural sector the percentage of child undernourishment (from 1 to 4 years of age) increased from being of 7.7 (1979) to 15.1 in 1989. In terms of the per capita social spending, it declined 6% in real terms from 1984 to 1995. In terms of per capita health spending, it fell from 3.9 (1979) to 3.3 (1995). Meanwhile, Mexico external debt commitments –that had (and have) to be regularly met– turned from US\$84,800 (1985) to US\$165,755 (1997), something that implies a 95.4% increase in the period. In more general terms, the predicted economic growth did not really consolidate, as the GDP only increased 1.7% in annual terms from 1983 to 1997. Agricultural production only grew in 1% in the same period and the massive migration of Mexican peasants to the United States commenced. I will now turn to the characteristics of the Neoliberal Statehood Formation in the Mexican water polity.

5.4.2. The Neoliberal Statehood Formation and the Mexican Water Polity: A More Detailed Overview

This next section will take the reader through the convoluted process of Neo-liberal State-transformation in the Mexican water polity, involving the implementation of a range of State-strategies attempting to stabilise the Neoliberal Statehood project in Mexico. The Neo-liberal Statehood project in the water sector sought to gradually and deeply transform the role and structure of the State, as well as different types of socio-political relationships, including: the intergovernmental relationships (i.e. the relationships between the central State, and the state- and local-level authorities), the relationship between the State and civil society –including the private sector and other social actors (i.e. water users and other stakeholders), and the relationship between the State and international organisations (e.g. the World Bank, the IADB and the IFC). An important rationale –or justification– behind this Neoliberal State project was the central consideration regarding the need to redefine the role and size of the State in the process of water resources management, and thus also the inherent need to redefine the role of civil society and the market forces in such

process. This process is convoluted, as mentioned above, for many reasons, most importantly amongst them the difficulties in establishing and stabilising this State project, and the number of drawbacks and contradictions its strategies manifests.

Some of the most important and consequential State-strategies were the deployment of the IWRM paradigm, and in attempt to influence discourse and policy; the creation of an water apex-authority and new National Water Plan process, the decentralisation/devolution of WS & S service provision to the local level; the opening-up of to private sector involvement in WS & S service provision; the decentralisation/devolution of irrigated districts to water user associations; the establishment of a complex property rights system, and the establishment of MSPs for water resources management (at the river-basin, micro-basin and aquifer level). Since their inception in the Mexican water polity each of these State-strategies have 'struggled' to stabilise, a situation that has generated important policy drawbacks that I will attempt to succinctly describe during the next sections of this chapter. These drawbacks somehow manifests outright contradictions in the nature of the Neoliberal Statehood project in the Mexican water polity.⁶⁹ The following sections elaborate briefly on the aforementioned State-strategies to help recreate the historical-institutional context and to support the argumentation of the thesis. More detail we devoted to describe the State-strategy related to the establishment of the MSPs for water resources management, a central concern of this doctoral research.⁷⁰

5.4.2.1. The Establishment and Re-organisation of CONAGUA's Institutional Arrangements and the National Water Planning Process

In this section I will describe and comment the following central State-strategies: the consolidation of a specialised apex-authority and the territorial-administrative reorganisation of the water polity; the development of new National Water

⁶⁹ In informal interviews with the current Deputy Director of Planning, Mr Emiliano Rodriguez, a senior external consultant of the CONAGUA, Jose Eduardo Mestre, and the General Manager for Water Policy, Dr. Judith Dominguez, it is interesting to acknowledge that actually the present CONAGUA's administration is considering implementing a range of 'policy reversals' to address the drawbacks caused by the Neoliberal State-strategies. Some of these policy reversals if managed to materialise may represent an interesting opportunity for progressive reforms. Still the three of them highlighted that unfortunately the Mexican water polity presents a number of very strong path-dependencies that would require an enormous 'political will' and social consensus to break. One idea is even to foster a new form of 'socio-political pact' for sustainable water resources management. More on this idea of a social pact will be developed in the final chapter of the thesis.

⁷⁰ It is important to establish that the exposition of the State-strategies does not obey a strict chronological order, so I go back and forth in a span of time of approximately 15 years. Still, I make efforts to support the reader in locating himself/herself in through this historical process.

Programme process; and the enactment of the 1992 National Water Law (1992 NWL).⁷¹

- *The Consolidation of an Apex-Authority in the Water Sector, the Influence of IWRM as a policy paradigm, and the Territorial Administrative Re-organisation of the Water Polity*

Possibly one most consequential actions in terms of water resources management during President Carlos Salinas' term (1988-1994, the second Neo-liberal regime in Mexico) was the consolidation of authority in the water sector through the establishment in 1989 of the National Water Commission (*Comisión Nacional del Agua*, CNA –with that acronym at that time, and with a current acronym of CONAGUA) (Torregrosa, et al, 2010). The establishment of the CNA was greatly influenced by a group of civil engineers and water resources planners –the “hydrocracy” using J. Wester’s (2013) term. This influential hydrocracy participated together in the 1975 National Water Plan Commission (*Comisión del Plan Nacional Hidráulico*).⁷² The CNA became the apex-government entity entrusted with water resources management & development throughout the country, and with the very ambitious task of transforming the water polity through the implementation of a broad range of Neo-liberal reforms. Initially, the CNA was under the remit of the SARH. Very importantly, during President Salinas' term in 1992 a new National Water Law (1992 NWL)(*Ley de Aguas Nacionales de 1992*) was issued, establishing a new range of water policy principles avowed by international organisations and lending institutions –including the World Bank and the IADB– and comprised some fundamental paradigms and ideas, indicating the transformation that needed to be undertaken.

During President Ernesto Zedillo's term (1994-2000), the CNA in 1994 was shifted to become a de-concentrated government body under the recently created Secretary of the Environment, Natural Resources and Fisheries (Secretaría de Medio Ambiente,

⁷¹ I am grateful for the important orientation I received to develop the arguments in section from Mr Fernando Gonzalez, former General Director of CONAGUA, Mr César Herrera, former Deputy Director of Planning and Programming of CONAGUA; Mr. Juan Carlos Valencia, former Manager for Planning and Programming of CONAGUA, and Mr. Eduardo Mestre, senior consultant, amongst other experts.

⁷² This hydrocracy was comprised of very important and influential individuals in the public administration, as they had ‘connections’ within State-apparatus, but also with the most important engineering and construction companies, consultancies, the academy, and very relevantly with water professionals at the World Bank and the IADB. In reality, they represented an important ‘advocacy coalition’ with tremendous influence over the water polity.

Recursos Naturales y Pesca, SEMARNAP).⁷³ The official discourse manifested that this action corresponded to an attempt to break the agricultural orientation of the CNA and embed the water sector in the institutional arrangements entrusted with the task of environmental protection and sustainable development planning, again following the IWRM paradigm. Scholars like Jimenez (1997) consider that this move was highly rhetorical being that the CNA absorbs an overall 70% of the budget allocated to the SEMARNAT, the political figure of the General Director of CNA, against that of the Secretary of SEMARNAT, clearly carries greater political clout, and the CONAGUA hardly can be considered a 'green' institution.

Immediately after this important shift in the high-politics of the water polity, CNA embarked on an ambitious process of administrative territorial re-organisation and de-concentration process that lasted from 1995-1998, and that implied the regrouping of the country's territory in new Hydrological Administrative Regions (HARs) (*Regiones Hidrológico-Administrativas*). This re-organisation produced 13 HARs, each HAR had its own office. Some years later 26 River Basin Councils (RBCs) were established as MSPs for water resources management, one in each HAR (and some HARs had more than one RBC due their size). According to Carabias and Landa (2005), this new regionalisation of the HARs and its RBCs obeyed mostly to pragmatic political and institutional considerations, rather than truly to water resources management criteria; a situation that later created important drawbacks in the attempts to manage water 'at a river basin level'.⁷⁴

⁷³ President Salinas' government succeeded in controlling inflation, seemingly achieving a certain degree of economic and financial stability, but when President Ernesto Zedillo (1994-2000) took office, instead of going through the expected continuation of Salinas' macro-economic policies, Mexico was hurled into the worst crisis in history: known as "*el tequilazo*". This crisis was fundamentally instigated by alarmingly low amounts of foreign reserves and a high degree of vulnerability brought about by the withdrawal of foreign investment within a short period of time and treasury bonds guaranteed in dollars, destroying overnight the country's macro-economic stability and threatening Mexico's economic future over the short and medium haul (Rodriguez, 1999:98). Consequently, President Zedillo's term started with the country facing great financial challenges, a situation that had a clear impact over policy sectors, including the water polity, and mainly through the impact of austerity measures and State retrenchment (Aboites, Birrichaga and Garay, 2010).

⁷⁴ In an interview with Dr Julia Carabias, former Secretary of State for the Environment and Natural Resources, one important comment made is that actually some political forces were pushing for the establishment of a 'super-Secretary' that could manage natural resources and water together, and with the idea of more forcefully integrating the a a sustainable development agenda with water resources management. Unfortunately, the battle was lost in favour of the creation of water institution with a strong vocation towards building infrastructure.

- *The Modern National Water Planning Processes*

In 1995 the Deputy Director General's Office for Planning and Programming of the CNA embarked in the development of state and regional water resources and institutional diagnoses, applied to each of the states and the 13 HARs. These offices had as one of their central tasks the integration of more reliable hydrological and socio-economic information for decision-making. Later, with this information each CONAGUA's State Office, the HAR's Offices, and the CNA embarked in the production of the first State and Regional Water Programmes (*Programas Hidráulicos Estatales y Regionales*). These programmes were the first regional programming and planning instruments, orienting strategic actions, institutional development, capital investments and other capacity-building initiatives in the country. To support this purpose, each of the HARs was provided with a Deputy Planning Department in charge of coordinating the production of these documents, which took into consideration a number of priority objectives and strategic pathways to achieve the sustainable management of water resources.

The Programmes included the preparation of water availability scenarios and water demand predictions by region and with projections to the year 2020. These Programmes were integrated by incorporating information, concerns and proposals put forward during participatory planning workshops organised in coordination with the RBCs. This participatory exercise was the first of its kind in the Mexican water polity and was carried out in coordination with the RBCs, where a process of discussion between stakeholders took place. Later with this information the CNA produced in 2000 (with the outset of a new administration, under President Vicente Fox 2000-2006) the new National Water Programme 2000-2006 that also followed a 'participatory approach'.

- *The 2004 National Water Law and the new National Water Programme 2001-2006*

In 2000 Vicente Fox Quesada became president of Mexico, putting an end to one-party rule of the PRI and giving way to the much-expected democratic transition. The new 2000-2006 National Water Programme establishes that water is "strategic resource and a matter of national security", that the basic unit for water resources management is the river basin, that water resources management should be integrated and that decisions should be taken with the participation of stakeholders (CONAGUA; 2001: 83-84). Regarding IWRM the plan clearly stipulates a shift in the

paradigm from a supply driven approach towards a water demand management approach:

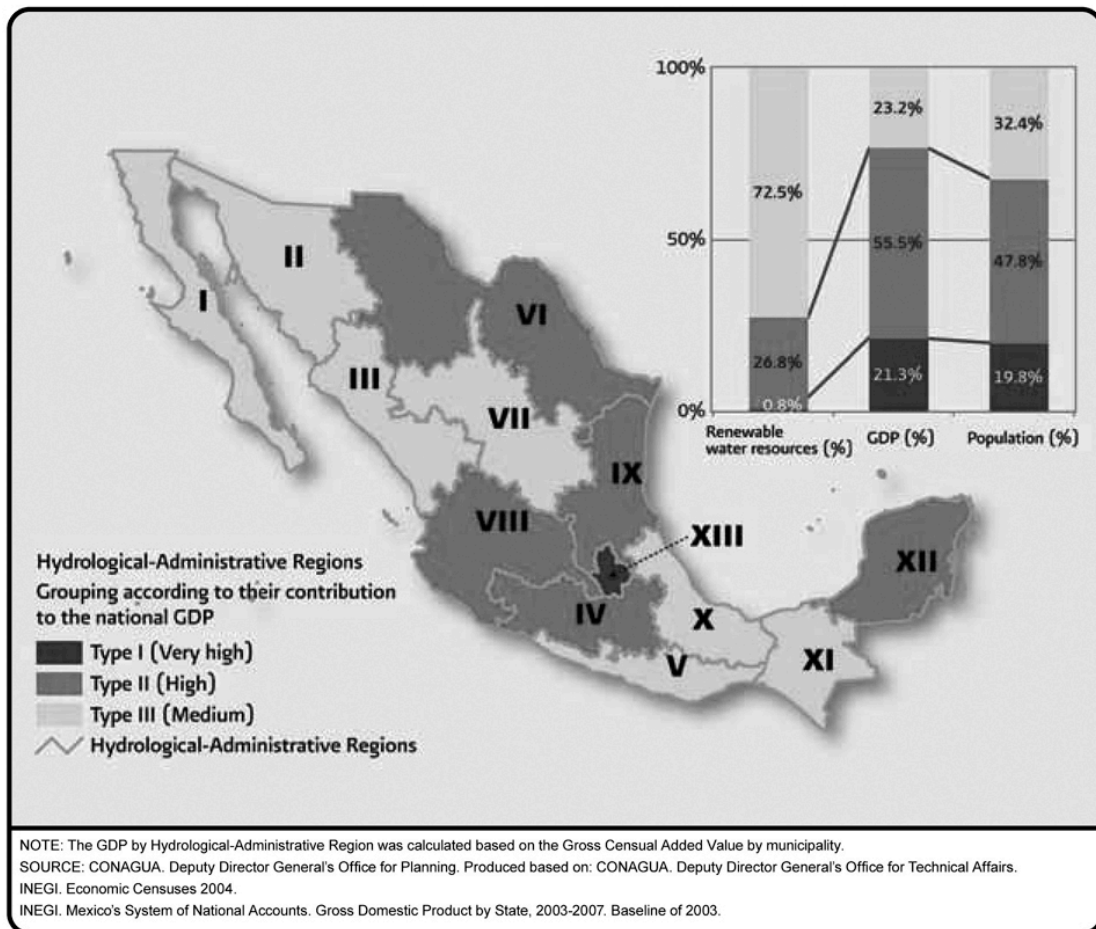
“It is necessary to modify the current approach oriented at satisfying the demand of water resources by increasing water availability through hydraulic massive infrastructure, to another one based on water demand management strategies, using water more efficiently, recuperating water losses, and implementing water re-use. It is necessary to consolidate the integral management of surface and groundwater resources, in quantity and quality, and all its uses and management at the level of river basin. It is also necessary to plan, develop and manage water resources and adopt the necessary criteria to harmonise the national objectives of efficiency and equity in the use of water resources and for the welfare of all the Mexicans.” (CNA, 2001: 87-88)

Under the new 2004 NWL, the CONAGUA was maintained as a de-concentrated institution of the SEMARNAT, but with a wider representation of other policy sectors in its Technical Committee, its highest decision making body, and in order to support greater inter-institutional coordination.⁷⁵ Very importantly, in terms of the territorial administrative re-organisation, the 2004 NWL established that the CONAGUA's HAR's Offices would turn into 13 River Basin Organisations (RBOs), as technically autonomous, administrative and legal decision-making units ascribed to the Director General of the CONAGUA. These RBOs would be also financially dependent on CONAGUA. Every RBO had at the centre of its decision-making an RBCs.⁷⁶ The RBOs main tasks are to coordinate the implementation of national level water policy and to administer water resources according to the rule of law and national water policy principles. Regardless of the official discourse and a relative autonomy over certain decisions, the financial and political dependency of the RBOs is absolute, making them institutions that are very much subject to the centralisation *ethos* of the Mexican water polity (Meza, 2008).

⁷⁵ The CNA changed its acronym to CONAGUA in this term.

⁷⁶ The 13 HARs are: I Baja California Peninsula, II Northwest, III Northern Pacific, IV Balsas, V Southern Pacific, VI Rio Bravo, VII Central Basins of the North, VIII Lerma-Santiago-Pacific, IX Northern Gulf, X Central Gulf, XI Southern Border, XII Yucatan Peninsula, XIII Waters of the Valley of Mexico.

Figure-5: HARs in the Mexican water polity
Water Stress, GDP and Population Ratios



Source: CONAGUA, 2012

- *Commentary on Drawbacks and Contradictions*

There are several important drawbacks and contradictions in the institutional arrangements and planning process of the CONAGUA. A central concern has to do with the limited decentralisation of the RBOs. The 'theory' behind establishing RBOs is to support the implementation of decentralisation processes and the subsidiarity principle; which implies that water resources management decisions should be taken and implemented at the river basin level and by local stakeholders. In the case of the Mexican water polity, what we find is more a de-concentration move, rather than a decentralisation process. As such, presently, the RBOs are mere representations of the central State, depending politically and financially from the CONAGUA. Despite several political forces have pushed for greater decentralisation, the centralisation of the Mexican Water polity, so strongly entrenched during the Developmental-Interventionist Statehood formation has generated an important path-

dependency that is difficult to reverse. The weakness of the RBOs also derives from the weakness of their own RBCs. The RBCs suffer from a number of institutional design problems that prevent them from being authentic MSPs for water resources management, including a lack of authentic stakeholder participation, an aspect I will review in more detail later in this chapter.

Also the present CONAGUA's territorial institutional arrangements give '*de facto*' more political clout to CONAGUA's State-level Offices, as they are closer to the State Governors, and so together both authorities frequently by-pass the RBOs in important decisions that affect the river basin. The perception amongst civil servants and practitioners is that State-Directors are "definitely" more powerful than RBO's Directors.⁷⁷ This situation manifests yet another important path-dependency related to the federalisation of authority in the Mexican water polity. During years of the Developmental-Interventionist State-hood formation great efforts were undertaken to develop a State apparatus in each of the 31 states, and so decades later these institutional arrangements are difficult to change in order to follow the river-basin level planning rationale.⁷⁸

In fact the administrative re-organisation in HARs and RBOs is not really operational and effective, making the implementation of IWRM highly problematic also. In my opinion the problem lies also in the political culture the Mexican political system, where State Governors and other Federal Institutions are not really prepared to work at the river basin level, nor ready to accept water resources management as a crosscutting and transboundary policy priority. In order for IWRM to really work and support a more sustainable development path for Mexico, the HAR's and the RBOs should be at the centre of development planning processes, and other State institutions –of other policy sectors– should attempt to do their planning and management processes through the HARs. This political culture or 'silo effect' also

⁷⁷ In informal conversations with several civil servants at the Deputy-Direction for Planning from the CONAGUA and also with RBOs directors, they mostly concur that water resources and management processes respond more to the State level, rather than more authentically to the river basin level.

⁷⁸ I wish to highlight that presently CONAGUA is having discussions whether to abolish the State level offices or not. This action will correspond to a decision either to further support the decentralisation of water resources management to the RBOs or to support more the re-centralisation, in which case the State-level Offices are more useful. Indeed it has been extremely surprising to acknowledge that in Mexico there is an on-gong debate whether to decentralised or re-centralise, a situation that is creating grave concerns amongst more critical and progressive forces.

generates an important path-dependency that disables inter-institutional coordination and the development of MSPs for water resources management and development planning.

Another important drawback has to do with the National Water Planning process. The participatory planning process is hurried and lacks the appropriate procedural design features to convey it with the necessary principles and safeguards to be a truly inclusive and influential participatory process. Because of this reason, the National Water Programmes are interesting documents, but that are not necessarily truly legitimate and only represent the government's vision. Consequentially, most of the times, the Programmes are not really planning instruments as they do not really enable collective action, nor represent an authentic instrument to support socio-political governance process. In words of high-level civil servant participating in the planning process: "The National Water Programmes remain 'discursive' documents to be put on the shelf after their official presentation". Scholars like Vera (2005) that have studied the national water planning process, have concluded that this participatory process attempted by CNA are weak and showed important limitations. According to him, what generally happened during the participatory planning workshops was that they were mostly attended by government officials and with very scant participation of the actual water users and other stakeholders.

5.4.2.2. Decentralisation and Municipalisation of Water and Sanitation Services

Previous to 1983 water supply and sanitation services (WS & S services) were operated by Federal Water Boards and under the jurisdiction of the SRH, this situation was a result of the consolidation of the centralisation and federalisation State-strategies pursued by the Developmental-Interventionist Statehood formation. By 1973, the SRH operated over 1300 WS & S systems across the country's territory and was entrusted with the responsibility of investing in WS & S infrastructure development and maintenance throughout all regions (Pineda and Salazar, 2008). By 1976, a new Secretary of Human Settlements and Public Works (*Secretaría de Asentamientos Humanos y Obras Públicas, SAHOP*) was established to address the increasing and complex challenges of a rapidly urbanising country, and was entrusted with the task of basic services provision, including WS & S. The SRH remained entrusted with water resources management and all mayor hydraulic infrastructure construction, such as dams, reservoirs and irrigation infrastructure

(Gonzalez Reynoso, 2005).⁷⁹ The decentralisation of responsibilities for water and sanitation service provision in Mexico took place in two stages and following to slightly different strategic rationales. Generally speaking, scholars and researchers of this phenomenon refer to them as the decentralisation and municipalisation stages (Rodriguez, 2004).⁸⁰

- *The Decentralisation Stage*

In 1980 by a Presidential Decree of President Jose Lopez Portillo, the SAHOP was instructed to devolve the responsibility of WS & S services to the state-level governments and to local authorities, and with this move, this first decentralisation strategy started; and notwithstanding the resistance of state-level and local authorities who felt that they did not have the means nor the capacities to accept this important responsibility. Accordingly, the responsibility for WS & S services was to be allocated to newly to be created and specialised water and sanitation utilities (*organismos operadores de agua y saneamiento, OO*). Furthermore, this decree restricted the central State from any form of direct intervention in the management of WS & S utilities; established general policy orientations regarding their responsibilities and financial autonomy; and established financial incentives for state-level and municipal investments in the WS & S systems through a scheme of federal reimbursements against direct local investments.

Under the aegis of this Decree a total of 1,161 water and sanitation systems were devolved to state-level and local authorities. At the state-level the initial and general

⁷⁹ In the water sector –and more specifically in the water and sanitation sub-sector– it is important to establish the since 1917, water supply and sanitation services were provided by local authorities. As the WS & S challenges became larger with rapid urbanisation and industrialisation processes, the central State had to intervene –as has been the case throughout history– to support the local authorities in this strategic task. In 1948, urban water and sanitation service provision systems began to be managed centrally under the SRH, until those responsibilities were placed in the Ministry for Human Settlements and Public Works (SAHOP), and then in 1983 in the Ministry of Urban Development and Ecology (SEDUE). When the SEDUE was established (1982), it became evident that the highly centralised model had created some important problems due to this highly centralised form of managing water and sanitation services in cities across the territory. This situation, apart from the Neoliberal ideas regarding decentralisation, prompted the devolution of water and sanitation services to State and local authorities.

⁸⁰ The arguments presented under this section benefited from the orientation and comments provided by Mr. Roberto Olivares, Executive Director of the National Association of Water and Sanitation Utilities in Mexico; Emiliano Rodriguez, Deputy Director of Planning of CONAGUA, and former Director of the Querétaro State Water Commission (CEA), Mr Ricardo Sandoval, former Director of the Guanajuato State Water Commission (CEAG), amongst other experts.

reaction was to 'dodge' the responsibility for WS & S service provision and so states pushed hard for local authorities to take on the responsibility.⁸¹ Only in very rare cases, the state-level governments decided to establish state-level water commissions entrusted with the responsibility of providing WS & S services throughout the state's territories.⁸² The result was not surprising. The performance of the water and sanitation utilities across the territory was highly uneven and in most of the cases extremely poor. According to Briceño (2004) in 1983 only 100 municipalities –out of 2,200– had the capacity to sustain water and sanitation utilities in an autonomous manner without the intervention of the central State. These municipalities were the ones serving state capitals and some of the large cities across the country. It was 'common knowledge' that for most municipalities water and sanitation utilities represented a financial burden and that the room for improvement was extremely narrow under the conditions imposed by the 1980 Presidential Decree.

- *The Municipalisation Stage*

In 1983 under the context of the new presidential regime of President Miguel de la Madrid –the first full-fledge neoliberal regime in Mexico– important legal reforms were undertaken to further decentralise the WS & S to the municipal level. This action corresponds to the municipalisation stage and with the aim to clearly establish –notwithstanding the clear drawbacks– the municipal level as the favoured level for the organisation of WS & S systems. President de la Madrid pursued a general decentralisation and municipalisation process throughout the State apparatus with an encompassing legal reform of Article 115 of the Constitution, 'aimed' at strengthening the municipal treasury, supporting municipal autonomy and clarifying intergovernmental relations –seeking to establish the role of the central (Neo-liberal) State as policy designer, coordinator and regulator (Edwards, 1995, Olivares, 2008).

⁸¹ This situation highlights Polutanzas's consideration that the State is not an homogenous entity, but that is actually can be better described as "a strategic field" comprised of different nodes that respond and react to actions and initiatives of different nodes. In this case the central State sought to impose a decentralising strategy that was not readily accepted by State-level and local governments that felt not only unprepared, but also were accustomed to things being resolved at a central level.

⁸² It is relevant to mention that for many scholars and practitioners the most efficient spatial-territorial level of organisation for water supply and sanitation utilities is the State-level water and for a number of political, technical, organisational and financial reasons.

- *A Further Municipalisation Push and the Corporatisation*

With the arrival of President Salinas de Gortari (1988-1994) –the most influential and consequential Neoliberal in the history of Mexico– the National Water Commission (CNA) was created in 1989. This strategic-selectivity, as mentioned before, had a number of important objectives. One of these objectives was to implement in the WS & S the New Public Management Reforms (NPM reforms) –such as corporatisation of water and sanitation utilities–, and to open the sector to private sector involvement. In terms of the new corporatisation reforms the following policy measures were recommended and implemented throughout a large number of water and sanitation utilities across the country: the strengthening of the organisational and financial autonomy of the water utilities, the establishment of executive directors nominated by representative and ‘democratic’ governing boards –with representation of interests groups and citizens, and entrusted with the oversight of the utility’s performance–, and the financial sustainability of the entity through full cost-recovery and the adjustment of realistic tariff settings. The CNA encouraged state-level governments to consolidate the decentralisation process, the full financial autonomy of municipal water and sanitation utilities –effectively decoupling them from state-level financial support–, the establishment of a controversial ‘service suspension or reduction’ clause in service contracts, the stipulation of clear tariffs for different services and customers, the commitment to allocate the revenue from tariffs back to the respective water and sanitation utilities, and the provision for soft-State credits for those debtors willing to cover their debts for WS & S services, including State institutions.⁸³

By 2006 the policy reforms implemented by the CONAGUA, under the support of the World Bank and the IADB, achieved meagre results in terms of three crucial aspects, embedding the corporatisation ethos in utilities –specially in matters concerning organisational autonomy (that is the decoupling of utilities from discretionary political decision-making on behalf of Municipal Presidents), achieving the financial autonomy of the utility through cost-recovery (because there is a strong culture of ‘no-payment’ across the territory and tariffs do not cover the cost of operations), and the

⁸³ To support these measures the Conagua entered into important ‘conditional lending operations with the World Bank and the IADB, and designed and implemented the National Programme for Drinking Water and Sanitation (*Agua Potable, Alcantarillado y Saneamiento en Zonas Urbanas, APAZU*). The technical loan entered into with the World Bank and the IADB amounted US\$300 million and US\$200 million, respectively. In 1994 the APAZU was replenished with another World Bank Loan of US\$350 million.

establishment of 'service suspension or reduction' clause (because it is a highly political cost-full measure). Alcantara and Palma (1996) confirm that in 2006 only 17 of the 31 states had really committed to the reform and promulgated the corresponding legal reforms to support this transition. From then on, it is possible to see a very heterogeneous modernisation process of water supply and sanitation utilities. In some instances it is possible to find some examples of 'world class' utilities in some important cities of the country –and most of them following a mixed ownership structure, with some form of private sector involvement through performance based contracting and BOT schemes, but also with strong State involvement. There are some other utilities with a mediocre performance –according to international benchmarking standards– and a great number of utilities in small and mid-size settlements that are practically struggling every day to provide services to their respective populations. The recent financial crisis has negatively affected even more this already critical scenario. The poor are at the greatest loss.

In 2007, during President Felipe Calderon's term yet another technical loan, the Programme for Meliorating the Performance of Water and Sanitation Utilities (*Programa de Mejoramiento de Eficiencias de Organismos Operadores, PATME*) was organised with the support of the World Bank and this time to address the critical situation suffered by the majority of WS & S utilities in the country. In this case the loan contract surmounts to US\$100 million. The loan has the objective of improving several aspects in the operation of water and sanitation utilities, including technical, managerial, governance and legal aspects, amongst other critical areas.

- *Commentary on the Drawbacks and Contradictions*

The water and sanitation services decentralisation and municipalisation process has been highly criticised by scholars and professionals (Barkin et al., 2006; Sandoval, 2006, Aboites, Cifuentes, Jimenez and Torregrosa, 2008). This process took place without any preparation and with little support for states and municipalities. Also no clear guidelines or policy principles were initially clearly established, creating a complete confusion and disarray amongst municipalities. Another important critique of this situation was that although responsibilities were transferred, other policies contravened these decentralisation trends. Furthermore, no immediate technical support or capacity-building assistance was granted to the municipalities, a situation that only generated a sharp decline in the quality of water and sanitation service provision and gave rise to the long-standing process of financial and performance

crises of water and sanitation utilities across the country. Pineda and Salazar (2008) describe the general situation:

“ In retrospective we can consider that the municipalisation of WS & S reform of President de la Madrid was overly ambitious and ample, and its objectives vague and rhetoric. In particular the case of WS & S, the objectives were also paradoxical, because they appeared to convey new responsibilities at the municipal level, but without providing the necessary resources for these institutions to adapt and thus make the process more viable. The municipalisation of WS & S was an utter failure, from the point of view of the objectives foreseen and the congruency and pertinence of its content, presupposing a local capacity that every one knew was not existent. In the end, in the places where the WS & S were municipalised, perhaps due to the financial crises of the State, the services tended to deteriorate and become even more inefficient.” (Pineda and Santos, 2008: 62; Translation: Mine)

After two decades of State-transformation in the WS & S sector, in 2012 water supply and sanitation coverage in the country surmounted to 92% and 90%, respectively. Despite this apparent success, almost 9 million Mexicans do not have access to safe drinking water, and almost 11 million to sanitation. These numbers also hide an important urban bias, because in reality, the rural water supply and sanitation coverage is of 80% and 70%, respectively, a very low coverage for a country such as Mexico. Also, these numbers hide the fact that the coverage in poor peri-urban areas of most medium and emerging cities does not really increase year by year, and so the progress reported in the optimistic percentages only reflects the cumulative increase in water supply and sanitation services in formal and new urbanisations. It is possible to say, that in Mexico there is a strong bias against the poorest populations inhabiting informal peri-urban areas of difficult access in hillsides and ravines. Also, the current (2012) non-accounted for water average in the country represents between 30-50% of produced water, a very high percentage indeed, specially in certain areas with grave water stress. Although drinking water supply is officially chlorinated, the quality of drinking water is not reliable, forcing every household in the country to boil or filter water for daily consumption. Very dramatically, water treatment services –that are also mostly the responsibility of municipal water and sanitation utilities– surmounts only to 47%, which means that served water represents an important source of pollution and an important factor of health and environmental risk. As is the case elsewhere, the poor are the more vulnerable to this risk.

Most importantly, no regulatory entity was created, and so CONAGUA plays the role of policy designer, implementing agency, and monitoring and evaluation, an important contradiction, according to international best-practice. Centralised decision making in the water supply and sanitation sector is highly discretionary, and there is no clear system for the allocation of financial support to WS & S utilities. Everybody seems to pretend that financial self-sufficiency is something that is achievable, when it is clearly not for the great majority of WS & S utilities. Tariffs are not really functional mechanisms for cost-recovery, because they are extremely political, and so the sector remains in an important impasse that requires a new generation of reforms.

5.4.2.3. Private Sector Involvement in the Mexican WS & S Sector

Private participation in the provision of water supply and sanitation services in Mexico starts at the end of the 1980s, during the mandate of President Carlos Salinas de Gortari, and as part of the comprehensive Neoliberal Statehood strategies implemented in the water sector in Mexico. The rationale behind it was to reduce public expenditure in the provision of WS & S services and also to bring the financial and technical capacities of the private sector. Private sector participation in Mexico has had different forms of involvement in matters concerning WS & S services, but more so in the form of partial and total management contracts and 'Build Operate and Transfer' schemes (BOTs) for the construction of municipal water treatment plants.⁸⁴

In terms of the integral management of WS & S systems there are to date 3 relevant cases of private sector involvement, of which two are total concessions (the cities of Aguascalientes and Cancun) and one is a partial service contract (Mexico City). In each of these cases, the private company has in its charge the integral management of the system, including fee recollection, infrastructure rehabilitation and maintenance, and infrastructure expansion. The private companies also have the responsibility to increase the overall performance efficiency of the WS & S systems. In all cases the contracts have stipulated partnerships between Mexican and foreign specialised companies. In respect to private sector involvement in the partial management of systems through service contracts the most relevant cases are the Federal District and Puebla. The first one picked a service provision model with a gradual level of

⁸⁴ This section also benefited from the orientation and comments made in interviews with Mr. Emiliano Rodríguez, and also with Mr Hugo Contreras former Commercial Director for Bal-Ondeo, amongst other experts.

involvement in stages and with the responsibility shared between 4 private enterprises selected through an international bidding competition. In the case of Puebla, a service provision contract was chosen and only includes actions related to the commercial services such as billing, metering and fee-collection.

In most of the cases the private sector was brought in under already challenging situations regarding WS & S service provision. Local authorities, influenced by the 'paradigm in vogue' considered that by bringing private sector involvement it would be easier to access the much warranted financial resources and technical expertise required to improve the service provision. In all cases this assumption was misleading, and in all the cases contracts had to be re-negotiated several times, and the State had to intervene with 'financial bail-outs' to keep the services running and to avoid longer conflicts with the service providers. After more than two decades of the pursuit of private sector involvement in WS & S services, it is clear that the impetus for this alternative declined. Only in terms of water treatment services, the idea persists, but this is not the case for complete service delivery (i.e. water production and distribution).

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Generally speaking it is considered that private sector involvement did not truly bring in the necessary financial resources required to better the services as expected, and thus the perceived advantages of private sector involvement did not really materialise. Overall the contracts entered into in Mexico only proved beneficial in the commercial areas, and not that much in terms of infrastructure expansion and expensive maintenance services. Another explanation for the dwindling pursuit of private sector involvement is all the international trends in the sector. Globally, for some time now, private sector involvement in the WS & S sector in Latin America has declined considerably. But scholars point out to more systemic problems, that affect not only private sector involvement, but the general performance of WS & S utilities in the country. The absence of a specific and comprehensive WS & S policy is definitely one of the most pressing hindering factors. It is odd, but it is true that the CONAGUA has not produced clear policy guidelines for the sector, and thus policy measures, programmes and subsidies do not provide certainty regarding the future of WS & S sector in the country.

Furthermore, in Mexico the normative and institutional framework does not generate the right incentives. Generally speaking there is no clarity between rights and obligations of the WS & S utilities, nor of the water users. I wish to recall, that in Mexico there is no overall national regulatory agency, a situation that as already mentioned is extremely paradoxical. Also the lack of official benchmarking does not allow for peer and social pressure to support change. Finally, the incompatibility of time horizons between the local authority's administrative terms (3 years only) and the long term planning horizon required by the WS & S utilities creates important long-term planning and coordination problems. The CONAGUA –again following a centralist ethos– does not allow for the establishment of local or state level regulations systems, and so the only way to regulate the behaviour of the private sector is through contracts, not competition, not economic regulation. This situation is highly ineffective, not to say contradictory. Establishing in the contract all premises for future contingencies is impossible and so contracts tend to fail as regulatory instruments, the result has in most cases ended in long re-negotiations, and ultimately in government bail outs, ultimately socialising the costs of governance failures.

5.4.2.4. The Decentralisation of Irrigated Agriculture: The Transference of Irrigation Districts.

During, President de la Madrid's term (1982-1988), the water resources planners at the SRH started to favour a number of existing 'international' ideas regarding agricultural water management, such as water user participation, water pricing, subsidies' curtailments, and other institutional reforms.⁸⁵ These ideas, plus the financial crises pushed some initial experiments with the Irrigation Districts decentralisation process in the Mexican water polity. Scholars such as Rap and Wester (2013) studying this process in detail consider that these experiments were mostly "trial and error", but helped to lay up the ground for the subsequent national level irrigation transference during president Carlos Salinas's term. Rap and Wester (2013) comment:

"The re-emergence of the transfer policy idea in the 1980's was closely intertwined with three concerns that have historically characterised the Mexican hydraulic bureaucracy's identity, namely bureaucratic autonomy, control over financial resources and control over the irrigation districts. Gonzalez Villareal and his technocratic planning group represented a wider

⁸⁵ The content of this section benefited from interviews with Dr Luis Rendón, Manager for Irrigation Districts at CONAGUA, and Dr María Luisa Torregrosa, scholar-expert in the subject matter, amongst other experts.

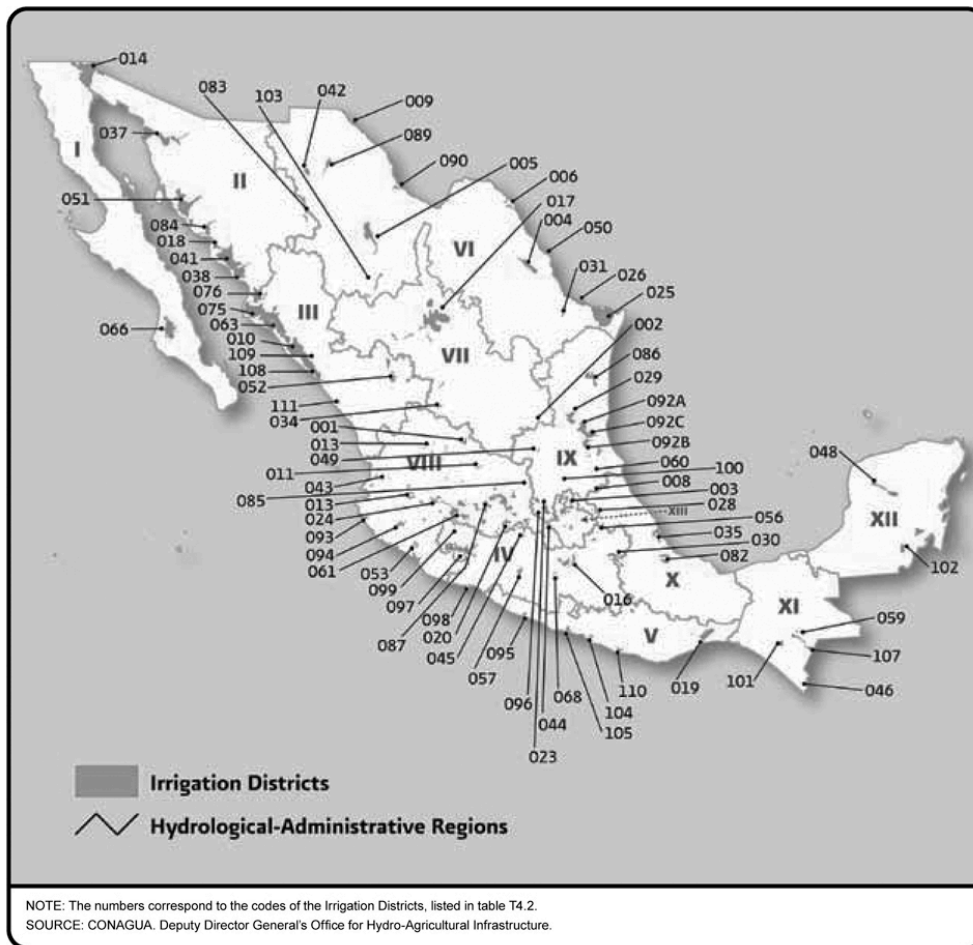
national 'advocacy coalition' of senior bureaucratic groups, political party actors, water related academy, producer organisations and professional organisations, consultancy and construction companies, with its broadly shared claim for a sole water authority with bureaucratic and financial autonomy. But it also partially shaped an emerging international policy network to globally promote the transfer of irrigation systems to water user associations" (Rap and Wester, 2013: 515)

In the early 1990s, the Mexican government pioneered the transfer of irrigation districts to newly created local water user associations, drawing a lot of attention from the international water sector. As part of the Neo-liberal reforms during President Carlos Salinas administration (1989-1994), some 2.5 million ha of government irrigation districts (out of more or less 3.4 million) were transferred to water user associations (WUAs) (CNA, 1999).⁸⁶ The speed in which this process took place surprised the international water community. Consequently, Mexico's Irrigation Management Transfer programme (IMT Programme) was considered a success in water policy circles around the world, and the Mexican model became a reference and showcase for promoting this form of State-transformation in the water sector (Gorriz et al, 1995; Johnson, 1997). The IMT Programme effectively and gradually reduced the direct role of the State in irrigation management, a situation that with the passage of time created a number of important drawbacks in the performance of the irrigation districts –and mainly because there were no governing provisions to support them in an integral manner.⁸⁷

⁸⁶ It is important to establish that in 1988 Salinas de Gortari assumed the presidency of Mexico after a strongly contested election and widespread electoral fraud allegations. There were numerous indications that the elections were rigged in favour of him and his political party Institutional Revolutionary (*Partido Revolucionario Institucional*), the dominant party, governing Mexico under one-party rule for more than 70 years. Because of this situation Salinas had to take initially only incremental steps in the State-transformation process and the liberalisation of the economy, under his famous slogan of 'social liberalism'. Ultimately, this strategy was oriented at regaining political support and control amongst rural groups and peasant population. Accordingly, the irrigation transfer process was central in this State-strategy.

⁸⁷ In the IMT Programme the role of the development banks was again critical and preponderant, especially in this case the World Bank. The World Bank 1988 and 1989 sent eight high level missions to Mexico with the task of developing a new loan to support the IMT Programme. Extensive discussions were held with the CNA concerning the content, timing, politics and challenges, from which a central issue was the emphasis made on the need to eliminate subsidies to the irrigation systems and that the irrigation districts had to be productive, self-reliant –in organisational terms– and self-sufficient –in financial terms. In December 1991, a US\$400 million loan was approved by the World Bank to finance Mexico's IMT Programme (The Modernisation of Irrigation Districts Policy Loan). This loan supported the gradual transfer and modernisation process, targeting 21 irrigation districts.

Figure 6: Irrigation Districts in Mexico



CONAGUA, 2012

A gradual transfer path was chosen, and so initially only 21 districts were ready to be 'modernised' and 'decentralised' between 1990-1994. These districts were carefully selected on the basis of an assessment made by the CNA regarding the willingness of the users to accept the transfer (CNA; 1991a; World Bank, 1991). Most of them were large, commercially oriented districts located in the north of Mexico, with few infrastructure problems and good productivity ratio. Several actions were then designed to secure the CNA's control over the irrigation districts. Central to these was the constitution of WUAs as civil associations as limited liability organisations, and to be entrusted with the management, operation and maintenance of irrigation infrastructure in their pertaining irrigation districts. With this move the CNA ensured that irrigation districts would fall under its control –and not under the control of the agriculture bureaucracy represented by SAGARPA (Espinosa de Leen, 1994; Vargas 2008).

In 1992 with the new national water law, the IMT programme was given a further boost. The CNA concentrated efforts to accelerate the transfer in the north of the country, and thus with by the end of 1992 the process was completed. In 1993 the transfer policy was consolidated and some 725 ha were transferred. In 1994 the transfer again slowed down because the end of President Salinas term was finishing, a period in Mexican politics when the State-apparatus concentrates mostly on the presidential succession. Currently, the area with infrastructure that allows irrigation is approximately 6.5 million hectares, of which 3.5 million correspond to 85 IDs, and the remaining 3.0 million hectares to more than 39,000 IUs.

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The assumption regarding the financial self-sufficiency of the irrigation districts was mostly misleading, as a great number of them require constant State support to cover for operation and maintenance costs. As result of a lack of financial resources the irrigation districts' water distribution infrastructure has deteriorated considerably, a situation that not only affects agricultural production, but water use efficiency. As already mentioned a great number of this irrigation districts are located in regions with severe water stress, so water use efficiency is central to a sustainable water resource strategy. There are also some important problems in their internal organisation, as although the districts are more or less comprised by homogenous water users, the reality is that frequently important conflict arise between water users members and over the use of water resources and other infrastructure management problems.

5.4.2.5. The Water Rights Property Registry (*Registro de Propiedad de Derechos de Agua, REPDA*) and the Rise of Economic Instruments

The presence of important water scarcity and pollution problems, the rising number of social conflicts amongst different water users, and the Neoliberal ideas regarding the benefits of property rights in water resources management prompted the CONAGUA to design and implement a water rights system in the country, the REPDA. This system includes water abstraction –water concessions– and wastewater discharge permits. The 1992 LAN established the legal basis for the water rights systems in Mexico and signalled the start of a complex integration of water users into the federal REPDA. This process took more than three years and a massive socialisation and communication campaign to mobilise water users across

the country to inscribe in the Registry.⁸⁸ Regarding the CONAGUAs role in the REPDA, the 1992 LAN defines important responsibilities: the granting, modifying and cancelling of water concessions; the granting, modifying and cancelling of wastewater disposal rights, the operating of the Water Rights Public Registry; the monitoring water abstraction, wastewater disposal and user compliance; detecting illegal users; determining sanctions; monitoring payments, conciliating and arbitrating against disputes; and updating the database.⁸⁹

- *The Regularisation Process*

When the 1992 NWL was issued the process of water users 'regularisation' began, that is the integration or inscription of all the country's water users into the Water Rights Public Registry, and providing a 4 year 'grace period' for a water users to be registered. During the following two years the process was extremely slow, the CONAGUA simply lacked the capacity to manage the regularisation process in an orderly and systemic fashion. By 1995 it was clear that the CONAGUA would not reach the regularisation target and the water users would be automatically breaching the law, so another measure had to be taken, one with great consequential impacts for the future of the Mexican water polity. By Presidential Decree (October, 1995) all water users who came forward and register at the REDA will be granted a 10-year concession title, without any further prove except some simple administrative paperwork proving the use of water for productive purposes. The rationale was that in a 10 year period, the CONAGUA would gain greater knowledge of water availability and use and that in due time will gradually correct the concession allocation process. Users were given several incentives to comply, such as the partial and full pardoning of unpaid charges and sanctions.

The results were overwhelming, as the amount of users claiming water rights was simply 'astronomical' and again the CONAGUA was overwhelmed. A second

⁸⁸ It is relevant to establish that before 1521 the relationship between Mexico's inhabitants and water resources was mediated by pre-Hispanic religious and social norms. Since that date and the Independence (1821) water basically belonged to the Spanish crown that then delegated its rights to the Spanish conquistadores and the various religious brotherhoods established in Mexico. The 1870 Civil Code established that the use of water owned by the State required a formal concession from a qualified authority. Later, in the 1917 Constitution the State became the sole holder and manager of water resources and municipal authorities responsible for the provision of WS & S services (Art. 25, 27, 31 and 115 of the 1917 Constitution).

⁸⁹ The argumentation presented in this section benefited from the interviews with Dr Hector Garduño, former Manager for the REPDA at CONAGUA, and Mr Cesar Herrera, former Deputy Director at CONAGUA; amongst other experts.

Presidential Decree (December, 1996) attempted to even simplify the process, this time CONAGUA will only condition the entitlement provision to the 'word' given (i.e. the declaration under oath) by the respective water user regarding the effective abstraction volume used. By the end of 1997 almost 200,000 users applied for concession title, and by the end of 2000 almost 320,000 had inscribed in the Water Rights Public Registry.

- *Collection of Water Charges and Polluter Charges*

The collection of water charges is one of the main economic instruments used by the CONAGUA. It was introduced with the two main purposes: to increase water use efficiency –by promoting a gradual shift in water use towards higher value uses and deter water pollution–, and to provide funds for water resources management and development. Since their inception, collection for water charges has gradually represented an important source of economic resources for the CONAGUA, albeit there is a great number of water users that do not pay the official levies. With this consequential action the Neoliberal impetus to establish the economic value of water and its commodification started. In terms of the polluter pays principle, it allowed the CONAGUA to shift to society the responsibility to compensate society for any polluting activity. The idea behind this principle is that any 'rationale actor' (in this case any industry) will be deterred to pollute by the sheer cost of the tax imposed for this activity, and thus this situation creates incentives for end-of-pipe pollution control systems and water recycling.

- *Water Banks and Water Markets*

Before the 1992 LAN was enacted, water users made temporary transactions in the context of irrigated districts, but the 1992 LAN clearly established the official provision for enabling water markets. Accordingly water users are free to trade their rights within irrigation districts, within river basins, and within aquifers without State intervention. Water users can also transfer their water rights when only the user changes or within special provision zones, specially designated by the General Director of the CONAGUA. All other transactions are subject to approval by the CONAGUA in order to protect the environment and third parties. More recently, with the aim of making the transfer of rights more efficient and transparent, water banks have been created in each of the 13 Hydrological-Administrative Regions (HARs).

- *Commentary on the Drawbacks and Contradictions*

Notwithstanding these important efforts, many scholars consider that the REPDA manifests important drawbacks. Scholars and practitioners concur that the REPDA does not really represent the total universe of surface and groundwater users, its information is dated and the process of regularisation of water users is incomplete (Aboites, Cifuentes, Jimenez and Torregrosa, 2008). This process has been complicated due to the manner in which the regularisation process was implemented. In reality allowing water users to manifest –in good will– the amount of water being used for productive activities created a ‘massive’ over-concession of surface and groundwater resources that is currently threatening the viability of water security across the nation's territory.

Law enforcement is also an important challenge faced by the REPDA, as monitoring water abstraction and discharges is extremely complicated and costly. The way that CONAGUA is attempting to address this issue is by implementing random samplings and visits to water users, as well as applying severe fines to those not complying. Sadly, there is also an important and widespread corruption, and the CONAGUA is also attempting to address this situation through various measures. H Garduño (2006), the manager of this process at that time, explains some main issues regarding the REPDA⁹⁰:

“The current challenge is how to make water rights a true water resources management tool. The answer is a fine-tuned balance of economic incentives, stakeholder participation and law enforcement. This approach can be illustrated by the case of Guanajuato State, where 17,000 wells abstracting (mainly for grain production) twice as much water as the natural recharge, causing a yearly drawdown of two meters, severe land subsidence and water quality deterioration. The government of the state has taken the lead by supporting the establishment of aquifer management organisations. Groundwater users have responded very positively and have participated in many actions such as making sure that the user information in the Water Rights Public Register is reliable. They have also shown their willingness to reduce abstraction in order to restore the aquifer.” (Garduño, 2006: 106-107)

⁹⁰ In an interview with Dr Garduño he pointed out a telling fact. In reality the plan to continue with a more structured regularisation of water users was well thought, but when the financial resources were requested to the SHCP to undertake this endeavour, these were refused on account of austerity measures, in fact cancelling the opportunity to continue with the process. This marked a critical contradiction in the efforts made to establish a functional property rights systems in the Mexican water polity.

5.4.2.6. The Establishment of MSPs for Water Resources Management: River Basin Committees and Auxiliary Bodies

- *Some Elements of Institutional History of the RBCs and its Auxiliaries Bodies: The MPS for Water Resources Management in the Mexican Water Polity.*

An integral yet complex component of the Neoliberal Statehood strategy in the Mexican water polity was the development of the necessary socio-political governance arrangements to support the implementation of the IWRM paradigm, that demands, amongst other things, the enablement of social participation/involvement and stakeholder cooperation. So in Mexico, the 1992 NWL stipulated that greater social participation and stakeholder cooperation will be pursued amongst other means, through the establishment of River Basin Councils (RBCs) (*Consejos de Cuenca*), and their auxiliary bodies –the River Basin Commissions (*Comisiones de Cuenca*) and the Groundwater Management Technical Committees (*Comités Técnicos de Aguas Subterráneas*) (Duorojeanni, Jouravlev, and Chávez, 2008). Still, the 1992 NWL was rather ambiguous about the structure and function of the RBCs and its auxiliary bodies, and provides little orientation about how these new forms of socio-political governance arrangements would actually work in the context of the Mexican water polity.⁹¹ This is to say, that although RBCs existed in the 1992 NWL, there was no clear plan to support their institutional development, nor a clear idea about their institutional design and procedures.⁹²

Due to the inoperative nature of the premises of the 1992 NWL, in 1997 some modifications were made NWL By-Laws. These modifications in fact changed some important aspects regarding the institutional design of the RBCs and in order to make them more functional and balanced in terms of political representation, effectively taking some initial steps to address important concerns regarding the lack of water users' political representation in the RBCs and the balance of power between

⁹¹ The 1992NWL considered as part of the RBCs organisational structure that the General Director of the CONAGUA and the State-Governors (of the riparian States part of the river basin) will be the actual government representatives during the respective RBC meetings. This situation made the operation of the RBCs very unrealistic, as it became very difficult to organise constant meetings with the presence of such high-ranking officers that usually have very complex and busy agendas.

⁹² In an interview with Dr Duorojeanni and Mr Chavez, the first a senior expert in matters concerning IWRM, and the second the former Manager of the River Basin Councils Management Office of the CONAGUA, they commented that in reality this ambiguity showed the 'indecision' even 'reluctance' at the highest level of government regarding to the role of the RBCs in the Mexican water polity. According to them, several political forces were strongly against the establishment decentralised RBCs.

government and water users representatives (Chavez, 2002). By 1997 only 2 RBCs had been established, the Lerma-Chapala RBC and the Valley of Mexico RBC. These RBCs were established because these river basins presented grave water resources management challenges, including grave pollution problems and also an increasing competition between water users that demand new institutional designs to foster multi-stakeholder dialogue, consensus building and cooperation.

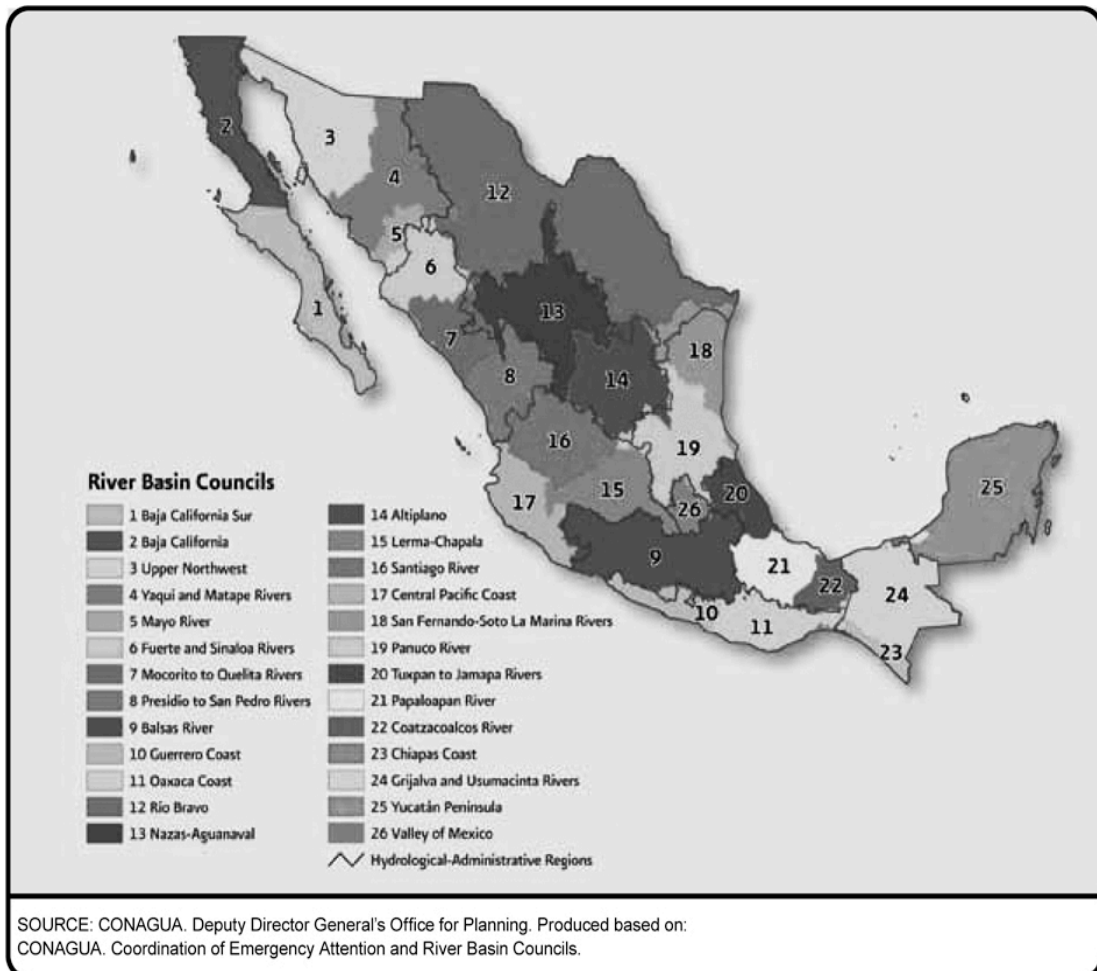
A central element of the 1995-2000 National Water Programme was to actively establish and develop 25 River Basin Councils, as MSPs for water resources management. The effort began to take more form in 1997 through the establishment of a 'special purpose' unit within the CONAGUA, the River Basin Councils' Management Office, entrusted with the task of 'quickly establishing' RBCs and the auxiliary bodies across the country. This Office designed a 4-staged institutional establishment and development strategy to gradually conform RBCs and their auxiliary bodies across the different administrative regions of the country. This strategy was comprised by an enabling, installation, consolidation, and operation stages. Below I will comment briefly on them.

The Enabling Stage consisted basically of the promotion and socialisation amongst state and local level authorities, water users, professional associations, universities and research centres and other stakeholders of the IWRM principles and the rationale behind establishing RBCs and auxiliaries bodies in Mexico. This first stage entailed enabling a complex convening and social participation process oriented at characterising the most important stakeholders in each river basin and at the integration of 'RBCs promoter groups'. These groups had the responsibility to gather stakeholder support for the RBCs idea. The stage culminated with the integration of state-level, sub-regional, and regional Water User Committees that will in turn conform the Water User Assembly of the respective river basin. This Assembly will then appoint their representatives –one for each water user group recognised in the 1992 NWL– to have a seat at the RBCs. This stage lasted for about two years.

The Installation Stage commenced once the water user representatives had been elected by the Water User Assembly of the respective river basin. This second stage had as main objectives to legally establish the RBCs, taking care of involving the most relevant stakeholders in the basins, and of establishing some initial priorities to be addressed by the newly conformed RBCs. The installation stage also entailed the conformation of Follow-up and Monitoring Groups –one for each RBC– entrusted

with gathering and validating relevant information for decision-making, and implementing the decisions taken by the RBCs. This stage on average lasted 3 to 4 months for each RBCs.

Figure 7: River Basin Councils in Mexico



CONAGUA, 2012

The third stage was the Consolidation Stage. This stage involved different piecemeal institutional development efforts to strengthen the RBCs and auxiliary bodies. Several types of activities were carried out, including capacity-building workshops, consensus-building meetings, and the integration of participatory diagnostics regarding local water resources management challenges, amongst other activities. As part of the consolidation efforts it was stipulated that the RBCs Follow-up and Monitoring Groups should, in principle, meet 4 times a year initially (1999)

and then once every month (2000). Another important element of the strategy was to support the creation of stable, fluid and 'democratic' channels of representation between the User Water Assemblies and the River Basin Councils. This stage was considered to require approximately 5 years of duration.

Finally, the Development and Operation Stage considered the future implementation of some ideas regarding as to how the RBCs could look like in the future, and that included for example: a vision of RBCs financially and organisationally autonomous, politically legitimate and representative, democratic and inclusive, and with a clear and consensual-based work-plan for the future. Also a number of important considerations were made regarding the challenge of better integrating the other auxiliary bodies into decision-making process (i.e. effectively attempting to address a multi-level governance and conjunctive use problems related to integrating decisions at the river basin, sub-basin and aquifer level).

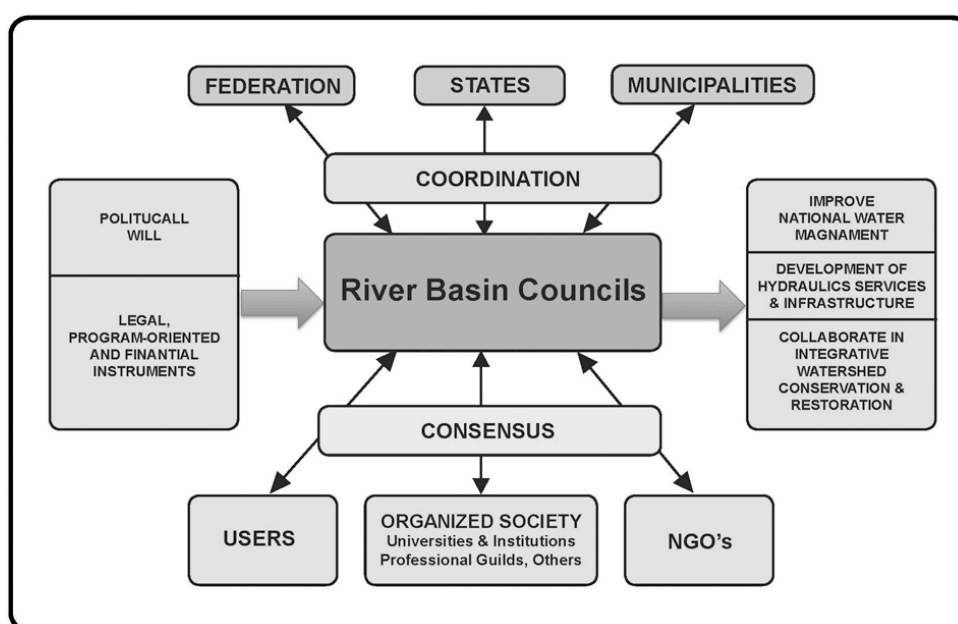
So towards the end of President Zedillo's administration (1997-2000) there was great confidence, at least within the Conagua's cadres, of the growing importance of the RBCs and their auxiliary bodies in the Mexican water polity. On this Guillermo Chavez, Coordinator of the RBC Management Office, commented at that time:

"The process of creation and development of the RBCs, approved by the Technical Council of the CNA, has been gradually and progressively consolidating in recent years, to become one of the most robust pillars of the structural change that drives the Mexican water polity. The organisation of RBCs recognises four territorial levels (the river basin, the sub-basin the micro-basin and the aquifer) in order to articulate all the users' interests recognised by the 1992 NWL as well as those corresponding to non-governmental organisations and the three government levels (federal, state, and municipal). Their legal and regulatory bases, their operation and functioning rules, as well as the social backing of their state-level, sub-regional and regional user committees and their representative assemblies, constitute an ample and stable organisational structure that qualifies them to be at the centre of a modern water resources management process." (Chavez, 2000:86-87) (Translation: mine)

In 2004 the 1994 NWL was modified and, amongst other important reforms, water resources management at the level of river basin was strengthened, especially through the creation of 13 River Basin Organisations (RBOs). As already mentioned in the previous sections the RBOs were de-concentrated units of the CONAGUA and mainly served as administrative, technical, and legal outpost of CONAGUA's central office. The 2004 NWL ratifies the figure of the RBCs and also strengthens them as mechanisms for water governance. The 2004 NWL opens up social participation in

the RBCs to other stakeholders –such as NGOs, universities and other stakeholders. It also establishes that the representations ratios in the RBCs should correspond at least to 50% of civil society representatives against government representatives.

Figure 8: The River Basin Councils' Stakeholder Relationships



CONAGUA, 2000

From then on the institutional development of the RBC and its auxiliaries bodies has taken place under the legal framework provided by the 2004 NWL and under the structure of the institutional arrangements established by the CONAGUA. By December 2010, there were 26 RBCs, 30 River Basin Commissions, 29 River Basin Committees, 81 COTAS and 36 Clean Beach Committees (Conagua, 2011). After describing some elements of the institutional development history of the RBC, I will now turn to describe in more detail there institutional objectives and institutional design features.

- *Institutional Mission and Objectives of the RBCs*

The main mission of the RBCs is to support the implementation of IWRM at the river basin level and with the ultimate goal to contribute to social development without detriment to the integrity of the hydrological cycle or the natural ecosystems that

support it (Conagua, 2000, p: 6). Accordingly, the institutional scale of these MSPs is the river basin level. In order to fulfil their mission, the 2004 NWL established that the main institutional scope of the RBCs is comprised by the following aspects:

- Know and disseminate the strategic guidelines of the national and regional water policy; and propose complementarities that reflect the river basin's short, medium and long-term reality (Art 16: section I).
 - Promote the participation and coordination of state- and local level authorities in the RBCs deliberative arenas, as well as that of water users and other stakeholders interested in the design, approval, follow-up, up-date and evaluation of the water programming process of the respective river basin (Art 16: section II).
 - Promote the integration of different task forces or work commissions to analyse, and propose solutions and recommendations related to matters concerning water resources management, the development of hydraulic infrastructure, the rational use of water resources and the preservation of its quality (Art 16: section III).
 - Support the generation of agreements with the CONAGUA regarding water allocation priorities and the range of policy instruments to be applied, and under the legal framework provided by the NWL and its By-Laws; as well as regarding the definition of emergency policy mechanisms in case of emergencies and contingencies such as floods, water scarcity, water over-exploitation, water pollution or depletion (Art 16: section IV).
 - Support the necessary due-processes to achieve the 'pooling' of technical, financial, material, technological and organisational resources required to execute any of the projects considered under the river basin's programming (Art 16: section V)
 - Participate in the development of financial studies developed by the CONAGUA and with the object of determining the amounts of the water user contributions aimed at supporting the execution of programmes in their benefit and that of the river basin (Art 16: section VI)
 - Participate or intervene in other cases as deemed appropriate by the Conagua and established under the NWL and its By-Laws (Art 16: section VII)
 - The CONAGUA, once the River Basin is established, will adjust its functioning to provide for its due functioning according to the faculties established for the River Basin Councils in the NWL and By-Laws (Art 16: section VIII)
-
- *Institutional Design Features of the RBCs*

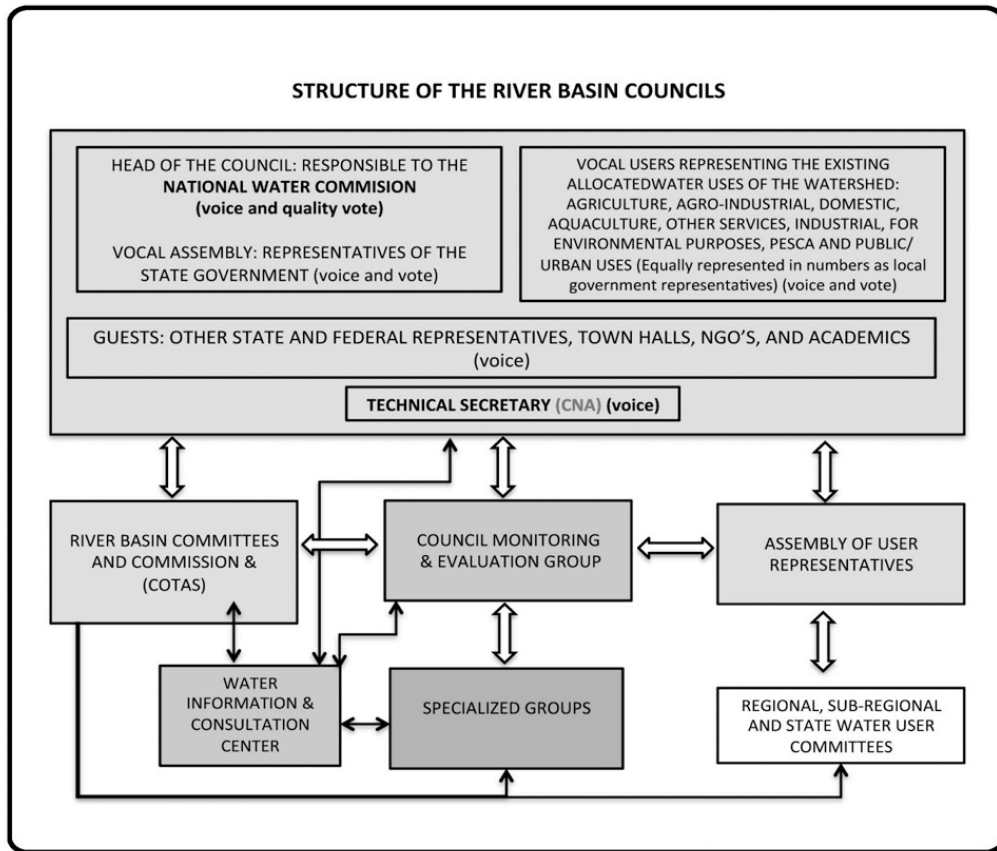
The RBCs institutional design structure comprises several entities that support its objectives, including the Water Users Assembly, the President, the Government Vocals, the Water Users' Representatives, Other Stakeholders' Representatives, The

Technical Secretary, the Follow-up and Monitoring Group, and the Specialised Groups and the Auxiliary Bodies –the River Basin Commissions and the COTAS. In the following pages I give a brief explanation of these different entities.

- *Water Users Assembly:* The Water User Assembly represents the social basis of the respective RBC. In reality it is not an entity, but more so of the political meeting place where all the water user groups in the river basin ‘meet’ for mainly two purposes: to select their representatives to their respective RBC and to discuss all the ‘water resources management’ matters submitted for discussion by their respective RBC. So, in this sense, the Water User Assembly is also a deliberative arena. The first meeting of the Assembly is used to select the first Water User Groups representatives to seat in the RBC. The Assembly can only be convened by a Water User Group representative or the Technical Secretary of the Follow-up and Monitoring Group. In theory the Water User Assembly of the RBC should be the ultimate decision-making entity in the RBC’s institutional set-up.
- *President:* The General Director of the CONAGUA will act as President of each of the RBCs and will have ‘vote cast’ rights in case of ‘draws’ in matters concerning decision-making. The President will have as his main responsibility to propose the criteria for the design and implementation of the water programming instruments for the river basin; and to nominate the RBC’s Technical Secretary.
- *Government Vocals:* The Government Vocals are represented by the State-Governors whose states are included in the RBCs. They have right to voice and vote. Their main responsibility is to represent the State government, to agree on the programmes and initiatives to be implemented in the basin, and support the water resources management decisions taken by the RBC.
- *Water User Groups’ Representatives:* Each water user group –recognised by the NWL- will have a pertaining Water User Group Representative, including agricultural, industrial, water and sanitation utilities, public-urban and social users groups. They have right to voice and vote. The water user representatives are entrusted with the important task of accurately and legitimately representing their constituencies. They are elected for a period of 3 years and may be re-elected once. They are also responsible of socialising and communicating to their constituencies the decisions taken by the RBC. They have the right to convene –when necessary– the Water Users Assembly. They may form part of the Follow-up and Monitoring Group. They should actively seek the involvement of their constituencies in the RBC.
- *Other Stakeholders’ Representatives:* Other relevant stakeholders can participate in the RBC in the form of invitees and representatives of local authorities, non-governmental organisations, the academy and research centres and other professional associations can participate in the RBCs. They are considered to be trustful actors that will contribute to the initiatives determined by the RBC. They have right to voice, but not to vote.

- *Technical Secretary:* The Technical Secretary is a government official of the CONAGUA, chosen by the General Director, and with the task of providing the necessary information and analysis for decision making, support the general operation and management of the RBCs, provide logistical organisation for the RBCs meetings, provide monitoring and evaluation information, integrate the water resources management initiatives' portfolio; and amongst other functions. The technical secretary also functions as the coordination of the Follow up and Monitoring Group. They have right to voice, but not to vote.
- *Follow up and Monitoring Group:* This Group is responsible for providing follow up and monitoring to the actions and initiatives determined by the RBC. This group is responsible then of gathering all the necessary information and analyse it to promote an informed and accurate decision-making process. Any member of the Government Vocals and the Water Users Representatives Group can participate in this Group. This Group can actually considered the motor behind the RBC, as it takes care of providing all the relevant information for decision- making.
- *Specialised Groups:* The RBC can conform any Specialised Group to perform any task that deems appropriate
- *The Water Information & Consultation Centre:* This Centre will provide information services regarding relevant water resources management issues and as well as information regarding relevant matters pertaining to the river basin. The idea behind this Centre is that all water users could attend to gain access to relevant information to prepare them for a more informed and active participation in the decision making process.
- *River Basin Commissions and Groundwater Management Committees (The Auxiliary Bodies):* These entities are also MSPs. The River Basin Commissions have a similar structure to the RBCs and also a similar mandate, but the scale is smaller –at the level of micro-basins. Similarly, the COTAS are MSPs at the level of aquifer. The Presidents of the Auxiliary Bodies can participate in the RBC sessions, but do not have voting rights.

Figure 9: Institutional Design Features of the River Basin Councils



CONAGUA, 2000

The River Basin Commissions and the Groundwater Management Committees (COTAS) are also MSPs, and as the above diagram shows they are embedded in the institutional structure of the RBCs. The idea behind this is that these Auxiliary Bodies should have representation at the RBCs and to foster greater integration between territorial units in decision-making. The River Basin Commissions' scale is the micro-basins. The COTAS scale is the aquifer. The institutional design principles of the River Basin Commissions and the COTAS somewhat resembles that of the RBCs, but with some differences.

- *Commentary on the Drawbacks and Contradictions*

The legal recognition of the RBCs in the 1992 NWL generated great expectations regarding the implementation of the IWRM paradigm in Mexico, the implementation of decentralisation policies and the opening-up to greater social participation and stakeholder cooperation. Still through the passage time it became evident that these

expectations needed to be tamed, as the role of the RBCs remains very modest. This situation rests primarily in that the RBCs in reality are only considered as consultative entities and do not have any executive powers. The accords arrived in its deliberative arenas are not legally binding and so the relevant authorities have ultimately the final decision whether they implement the accords, to what extent they implemented them and when.

The later version of the law, the 2004 NW, does not grant any form of legal personality or statue to the RBCs. In this sense, they cannot exercise any act of legal authority (i.e. like the allocation of water concessions or the authorisation of actions). They are also not autonomous administratively, financially and technically, as they depend for any of these matters from the central office of the CONAGUA or their pertaining RBO. In this sense it is important to emphasise that they are institutional spaces to entice dialogue, consensus building and cooperation. For example, once the RBCs arrive to any decision, it then has to request to their pertaining RBO to implement –or channel the petition to the respective authority– the selected projects and initiatives. RBCs cannot by themselves execute any of the agreed measures or initiatives –as they do not have a judicial statue–, so they have to request via an agreement of cooperation with the State their execution. On the main drawbacks of the RBCs, G Chavez (2008) comments:

“Notwithstanding the progress made so far, the establishment of the RBCs through which the State and civil society cooperate is not yet a finished project, and in their actual form they manifest a number of weaknesses and drawbacks that are necessary to address in order to achieve their consolidation. Very importantly, there is a great need to convey them with greater authority, management autonomy, sufficient financial and material resources to sustain their organisation and activities.” (Chave, 2008, 34) (Translation: Mine)

Another important drawback that generates great concern is the issue of political representation and democratic performance. Scholars and practitioners alike are aware that there are important problems of lack of accurate political representation –and thus political equality and legitimacy– in the RBCs. There are other important democratic deficits such as capture and bias, as identified in the governance literature dealing with the democratic assessment of socio-political governance arrangements. On these aspects, A Dourojeanni (2000) comments:

“The democratisation and effective stakeholder participation that are involved in water resources management should be a central concern of the RBCs. It should not be allowed for certain ‘powerful’ groups to take decisions for the rest, and for them to create a false system of political representation and social participation. All stakeholders should be informed about what is going to be discussed in the deliberative meetings, and efforts should be made by the State to facilitate the attendance of all water users, even if it is necessary to cover their travel expenses. The lack of readily available information should also be address by the production of concise and telling brochures that can highlight the most important concerns in a neutral and informative manner.” (Dourojeanni, 2000: 193) (Translation: Mine)

5.5. End Comments to this Chapter

This chapter has identified and described three distinct types of Statehood formations throughout an important period of the history of the Mexican water polity. The socio-political forces behind these formations sought to stabilise in their respective time a particular State project –a vision about the role of the State and society in water resources management, water supply and sanitation and, also water security. Through different State-strategies these Statehood formations sought to define and articulate different types of socio-political and economic relations between the State and society, and also between society and water resources. Throughout this historical-institutional overview, this chapter also attests to the importance of water resources in socio-economic development processes, a situation that puts it at a centre of politics, State rule and management, and socio-political conflict.

In the first part of this chapter, I described the main highlights of the Nation- and State-building Statehood formation, when the rationale of the central State was to seek to establish an overall federal authority acting in the public interest over a ‘public’ resource and at a national level. The objective was to build a cohesive Nation and the authority of the central State over an extremely important natural resource, and by pursuing a strong centralisation and federalisation strategy. Through this strategy important efforts were made to recede the power of local oligarchies and disentail religious privileges over water use. The result was the creation of an incipient legal framework, an emergent State-apparatus and a relatively weak State authority. Still the institutional basis of the State was created for the next Statehood formation to continue, and water became a public resource under that tutelage of the central State.

During the Developmental-Interventionist Statehood formation, the central State managed to continue with this process in a more powerful and perhaps consistent

manner, developing an extensive network of strategic water infrastructure across the country, and building a complex legal framework and institutional array that supported the enlargement of the central-State both in terms of scope, as well as in its extension. At the same time and very importantly, the State gradually conveyed water resources with a central socio-political and economic role, as water became a 'fully politicised natural resource' (Bryant and Bailey, 1997). As such water resources were not only a driver of socio-economic development and a source of political conflict, but also an instrument of power and political patronage by putting at the centre of clientelist and corporatist socio-political relations. Throughout this period of time, Mexico was transformed dramatically by population growth, socio-economic development, and a massive rural-urban migration. As time passed by, and as a result of the development path ensued, water resources management problems began to become more 'complex' and 'crosscutting' challenges that could not solely be addressed by 'civil engineers' through infrastructure construction, but required a completely different strategy. The use of centralist, hierarchical-normative and top-down State-strategies also began to show clear signs of limitations and drawbacks. Then a critical juncture emerged.

At the same time the 'global' economic conditions changed, the State, purportedly, had to transform its orientation, its role and capacities in the governing of polities. For no longer the State could continue with such a strong and interventionist role, as it did not have the means nor the resources to continue with these orientation and roles. Consequently, the State had to share responsibilities with other stakeholders, including other State levels, society and international development institutions, and in order to maintain the necessary contextual conditions in their polities to enable socio-economic development. That was the mainstream interpretation to the State-crisis. The prevalent socio-political forces in this moment of 'crisis' managed to create a new idea for a Statehood formation, with a completely different State-project and a completely different array of State strategies: the Neo-liberal Statehood formation.

Mexico followed the trend and undertook a profound process of Neo-liberal State-transformation in a fairly 'orthodox manner' since the mid-1980s. In the water polity the Neoliberal Statehood formation implemented a number of State-strategies that sought to transform the relationship of the State with other 'stakeholders' in water resources management, water supply and sanitation provision, and more broadly the pursuit of water security. For a number of years Mexico was at the 'vanguard' in the

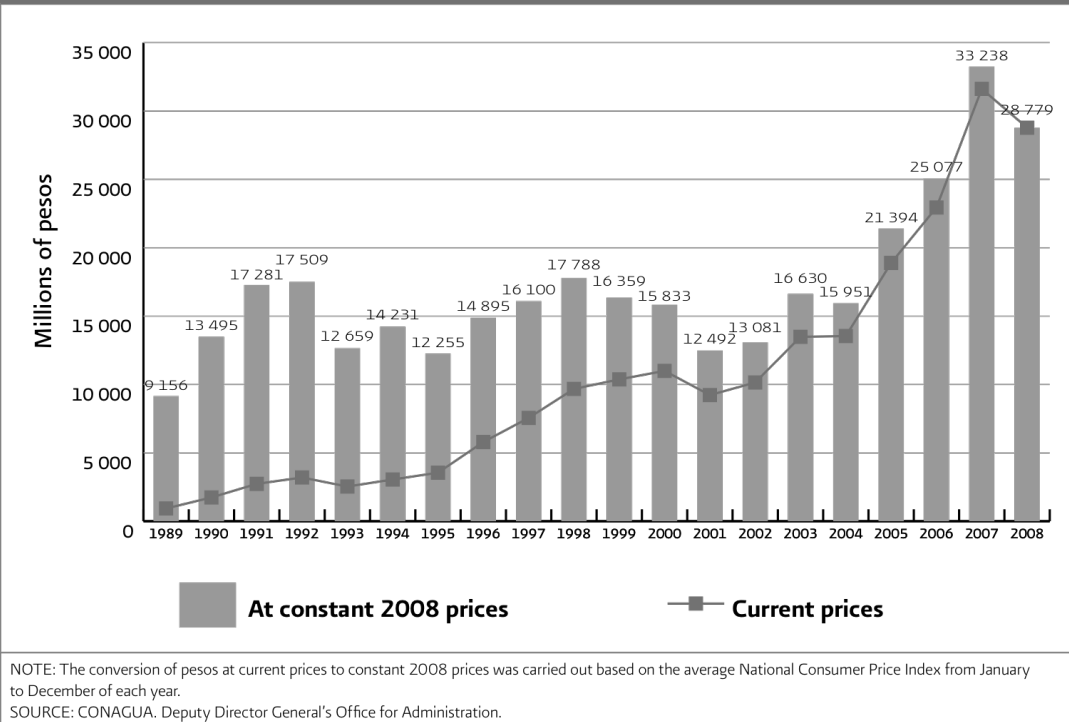
implementation of these Neo-liberal ‘policy reforms’ aimed at ‘structural change’. ‘Everything’ was tried: the creation of an apex authority, the appropriation of the IWRM discourse, the territorial re-organisation of the water polity to conform to river basin management, the design of national ‘participatory’ planning process’, the decentralisation of WS & S services, the opening to private sector involvement, the transfer of irrigation districts, the creation of a property rights system and water markets, and the establishment of MSPs for water resources management. The people in charge of this process all refer to this period as an “exciting and challenging time”.⁹³

But something went wrong, and important drawbacks and contradictions gradually emerged. The implementation of IWRM has mostly been rhetoric, except maybe at the level of micro-basins where we can find examples of other State institutions and stakeholders –rather than CONAGUA– designing and implementing more integral and comprehensive water and natural resources management processes with the participation of local stakeholders. Today, the CONAGUA is an apex institution, but it is hardly an enabling, regulatory, and steering one. Its budget has steadily increased in the last decades and according to a senior civil servant approximately 90% of it still goes to infrastructure construction, and the rest to institutional development and capacity building. The evolution of CONAGUA’s personnel roster is also telling. The institution has gradually been dismantled –this is line with the State retrenchment Neoliberal policies–; this is to say it has been steadily losing personnel, whilst at the same highly qualified personnel has not been required –allegedly what a regulatory, enabling, steering entity would require. It is possible then to consider that CONAGUA still is, by all means, a ‘development and interventionist institution’. It derives its institutional reach and political power, more than anything else, from its capital investment capabilities, and not its steering, coordination, and meta-governing strategies and capacities, as the Neo-liberal theory prescribes.

Figure 10: Evolution of CONAGUA’s Budget, Annual Time Series

⁹³ In the course of this doctoral research I had the opportunity to interview various members of this Mexican ‘hydrocracy’, all of them civil engineers by training with very robust knowledge on technical aspects related to water resources management. It was interesting to hear from some of them that indeed they felt that they were being confronted with problems that they had not been trained to address *per-se*, as their work now demanded to know more about socio-political processes, policy-making, inter-institutional coordination, institutional design, social conflict, etc.

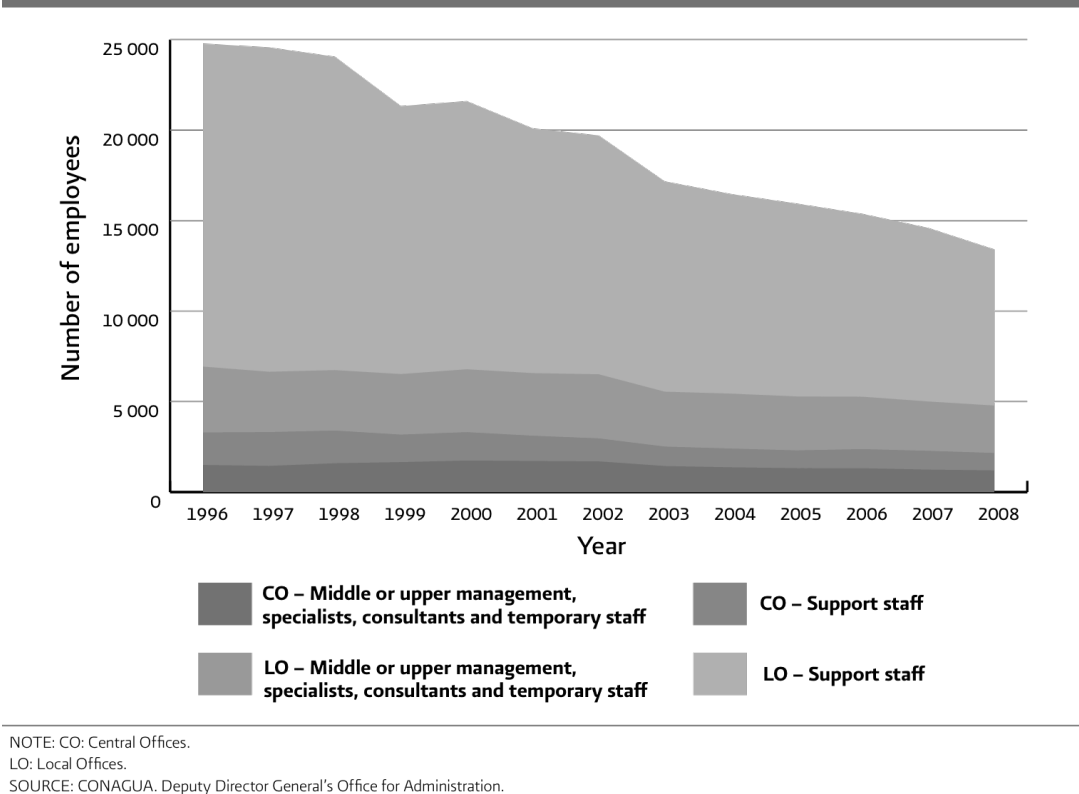
G5.4 Evolution in the CONAGUA's end-of-year revenues, annual series from 1989 to 2008 (millions of pesos)



CONAGUA, 2012

Figure 11: Evolution in CONAGUAs Staff Roster

G5.1 Evolution in the CONAGUA staff roster, annual series from 1996 to 2008



More so, the territorial administrative re-organisation of the water polity and the establishment of the RBOs represented only an administrative reform with very little decentralisation and subsidiarity content and showing only meagre capacities for water resources planning and management at the river basin level. It is difficult to understand the reasons behind the creation of RBOs, if later no decision-making, executive powers and financial autonomy were decentralised to them. As already mentioned, the result has been a duplication of functions and a constant 'turf battle' between the RBOs and the CONAGUA State Offices in the different States. The State Offices are closer to the General Director of CONAGUA, are closer to all the state governors and mostly have greater budgets than the RBOs, a situation that further weakens them. So the question is, was it not the plan to implement IWRM at the river basin level, and thus the impetus to establish and develop the RBOs? I am not saying that decentralisation is an easy decision to make, but the present ambivalence regarding the territorial-administrative re-organisation of the water polity is not tenable. On some of these aspects V Guerrero, a former high civil servant in CONAGUA and critical writer, commented:

"The lack of an integral vision in water resources management in Mexico, the individual and isolated work of the different stakeholders in the water polity, the deficient coordination between the different government tiers (federal, state and local), the great centralism and concentration of authority, the scarce or null social participation from water users and other stakeholders, as well as the grave depletion of Nature, are all drivers that are causing the absence of a sustainable development path, that is generating a tremendous water security risk for the present and future generations." (Guerrero, 2004:31)

The National Water Planning process was allegedly created to enable, every six years, the democratic participation of civil society in the definition of the central orientations and strategies that will guide water policy making for the government administration in turn. Despite what it is established by the 1997 NWL and the 2004 NWL, the process does not really enable a truly democratic and participatory process, as mostly who really participate in it are CONAGUA's civil servants, civil servants from other government institutions and organised interest groups carefully selected, as Vera (2008) describes. Again this process is always carried out against the pressures of deadlines and so it is always rushed through, leaving aside the goal of truly enabling a democratic and participatory planning process. Consequently, the National Water Programme does not really become a planning instrument, and the opportunity to truly engage society in an awareness-raising and social learning process inherent to this type of exercises is forgone. The democratic and

participatory National Water Planning process remains a rhetoric, unduly legitimising and tokenistic exercise.

The WS & S sector is also full of grave challenges as a result of the drawbacks and contradictions of the Neoliberal State-strategies. The decentralisation of WS & S utilities created an extremely complex scenario of low performing water utilities that are not financially self-sustaining, and still require the constant support from the central State. When talking to experts in the field, according to them it was clear to all that the municipalities were ill-prepared to receive the responsibilities of providing WS & S services to the country's population. Local water and sanitation utilities did not count with the necessary infrastructure assets, resources and personnel to carry out this role. More so, the legal framework to support their activities was also extremely weak and required important changes. So the drawbacks of the WS & S sector are not surprising to anyone. On the contrary, 'everybody' asks why this process was not carried out in a more planned and incremental fashion? In Mexico cost-recovery is mostly a myth, except for very few exceptions. To complicate matters more, central government support is tied to 'matching funds', so only the prosperous utilities are able to participate from them, a situation the condemns most of the small and mid-size water utilities to remain in a critical condition. This problem has created an extremely difficult situation for the urban poor inhabiting peri-urban areas and also for the rural populations, as simply water utilities do not have the financial resources or the technical expertise to address the particularities of the challenges that bringing WS & S services to these areas represent.

In the case of private sector involvement in the WS & S sector, the drawbacks are also clear and reflect more or less the global tendency regarding the Neoliberal mislead expectations regarding the role of the private sector in WS & S provision: that the private sector was going to come in and readily provide the necessary financial resources and technical knowledge to address the grave WS & S challenges faced by local water polities. Several problems tamed down these expectations. In Mexico local authorities had little experience in negotiating the contracts with the private sector, and so they had to be constantly re-negotiated, a situation that ultimately led to the central State needing to 'bail out' the schemes –when they ran into trouble– and by using public resources. The private sector involvement is mostly in the commercial areas where some improvements were made by focusing in cost-recovery, a situation that implied tariff reforms that were not easily accepted by 'consumers'. Furthermore, being that interventions were in these

commercial areas, very little new financial resources were brought in by the private sector –an important assumption that drove local authorities to seek private sector involvement in the first place, but that again did not consolidate. Ultimately, the role of the private sector in WS & S did not really ‘solve’ the challenges, and remains fairly stagnant, except for BOT schemes for water treatment plants and a few new ‘special projects’ that are ring-fenced by the State, protecting private actors by transferring most of the financial risk to the State –ultimately privatising the gains and socialising the risks and the costs.

The case of the decentralisation or transference of irrigated districts is relatively more successful. The process effectively managed to gradually reduce the direct role of the State in irrigation management –which was the main goal–, and again, the speed in which this process was undertaken commands the attention of policy makers around the world. The Irrigation Districts and Irrigation Units are fairly operational, maybe because water users are relatively more homogenous and more or less share the same goals. Still, again the assumptions regarding financial autonomy or self-reliance were overtly optimistic. Today most of the districts and units cannot keep-up with the necessary maintenance investments and so irrigation infrastructure has significantly deteriorated. To complicate matters an important percentage of these irrigation districts and units depend on over-exploited aquifers. The lack of coordination between CONAGUA and SAGARPA hinders the opportunities of technological and commercialisation support, with a direct impact to water productivity and economic efficiency. Together these situations are turning also into a grave food security challenge for the country.

An extremely controversial Neoliberal State strategy has been the establishment of the REPDA (i.e. property rights) and the enablement of water concessions rights transfers (i.e. water markets). Again the implementation of this strategy was rushed through, and eventually policy makers opted for the highly controversial measure that led to a massive over-concession of water resources across the country. The assumption that later in time it would be possible to revert this situation by adjusting-down the concessions has been proven wrong. The end result is that water users have legal water concessions granted by the State, and that are driving unsustainable water resources management across the country. This is highly contradictory, as precisely the establishment of these types of systems should be geared at the control of over-exploitation and the sustainable management of water resources. Besides this complex situation, the REPDA remains a very weak system

that is not only dated (i.e. the concessions registered do not really reflect the current water volume that is in use), but is also a very difficult system to enforce, a situation that paired with important corruption allegations renders the system highly inefficient as a water management tool.

Finally, the establishment of MSPs for water resources management was also a State strategy that created great expectations, but remains caught in an impasse or plateau. Presently, there are 26 RBCs created, 32 river basin commissions and 85 COTAS (Conagua, 2013) allegedly created to enable social participation/involvement, stakeholder cooperation and democratic decision-making throughout water resources planning and management processes. In the three cases, ultimately the MSPs are only consultative bodies without any form of decision-making authority, executive powers and financial autonomy. These MSPs do play a role in enabling dialogue regarding water resources planning and management, consensus building and conflict resolution, but still remain only consultative and financially dependent auxiliary bodies. They also show important weakness in terms of political representation and legitimacy, as they are frequently captured by powerful interests and remain exclusionary of certain social groups, thus serving mostly to reproduce socio-political relations of power and domination. A more in-detail analysis of the MSPs for groundwater management in the next chapter will show more pervasive challenges.

The above interpretation of the situation depicts a governing crisis derived from a number of drawbacks and contradictions resulting from the implementation of a complex repertoire of Neo-liberal State strategies. In the next chapter I devote efforts to study the establishment and institutional development of the MSPs for groundwater management, COTAS, one form of socio-political governance arrangements in the Mexican water polity. These MSPs for groundwater resources management were allegedly established to play a central role in enabling greater social participation/involvement, stakeholder cooperation and a democratic groundwater governance. This attempt will seek to unravel with more precision what has happened, highlight the prospects and challenges of these MSPs, and also elaborate on the role of the State in the establishment and institutional development.

Chapter 6: Groundwater Management and the Establishment of MSPs for Water Resources Management, COTAS, in the Mexican Water Polity: *The Third and Fourth Moments of Analysis*

6.1. Introduction

This chapter represents the implementation of the third and fourth moments of analysis (iii. Socio-political Governance Arrangement's Institutional Analysis and the Socio-political Governance Arrangement's Democratic Performance Analysis). In the first section of the chapter there is a brief narrative of the historical context and the general institutional development of groundwater management in the Mexican water polity, attempting to highlight the most important challenges faced, some policy ideas, and institutional responses; and leading to the establishment of MSPs for groundwater management. As this description will show, the first 'generation' of State-strategies implemented mostly during the period of the Developmental-Interventionist Statehood formation followed a centralist, hierarchical and administrative rationale that proved extremely ineffective and inefficient. This problematic situation, alongside the impact of the Neoliberal ideas influencing the Mexican water polity, prompted the implementation of broad 'decentralisation' and 'participatory' State-strategies that included the establishment of the MSPs for groundwater management, COTAS, in the middle of the 1990s. The COTAS were created as new forms of socio-political water governance arrangements, MSPs for groundwater management, with the objective of enabling greater social participation/involvement and stakeholder cooperation throughout the groundwater governance process. This chapter will show that this process again manifests a number of drawbacks and contradictions. The role of the State in this process and outcome has been central, as the reader will see.⁹⁴

In the second section of this chapter, I undertake the institutional analysis of the CONAGUA COTAS, addressing different important dimensions considered by the MSPs literature, including: institutional scale, scope and structure; as well as

⁹⁴ The historical-institutional narrative of the institutional development of groundwater management in Mexico benefited from secondary data collection –as indicated throughout the chapter in the referencing–, and also of interviews and informal conversations with three scholars that specialise in this subject matter: Dr Judith Dominguez, a legal-institutional expert with thorough knowledge on the evolution of the legal-institutional aspects of groundwater resources management; Dr Boris Marañón, one of the few scholars that have researched the institutional and socio-political aspects behind the establishment of the COTAS in Mexico, and Dr Oscar Escolero a hydro-geologists interested also in the institutional and socio-political aspects behind groundwater resources over-exploitation. I extend my appreciation to them.

stakeholder involvement (i.e. the rights, responsibilities and roles of stakeholders). At the end of this section a commentary is made regarding their effectiveness, efficiency and equity (i.e. drawbacks and contradictions). Some comments will also be made regarding to how power relationships are played out in the context of the MSPs COTAS.⁹⁵

In the Mexican water polity the case of the establishment and institutional development of the COTAS in the state of Guanajuato is considered paradoxical, because it attempted to follow a different route than the one considered by the CONAGUA, and to truly establish decentralised, executive and autonomous MSPs for groundwater management.⁹⁶ This process initiated with great prospects due to a 'critical conjuncture' that I will refer to below. Still, evidence shows that although initially the process represented some interesting prospects, ultimately its progressive dynamism withered away because of important challenges and path-dependencies. So, in a third section of this chapter I present a short narrative of the case of the State of Guanajuato COTAS, highlighting the aspects that made it a paradoxical case, and unfortunately also a contradictory one. Some insights regarding the role of the State –both of the central and the local State– are featured, confirming the post-Marxist and State-relational views on the nature of the State as a 'strategic field' comprised of different power centres, serving different power blocs.⁹⁷

Following this narrative the chapter develops the fourth moment of analysis through the democratic performance assessment of the Laguna-Seca COTAS in the state of Guanajuato. This particular COTAS also represents a paradoxical case, because it

⁹⁵ The argumentations developed in this section benefited from secondary data collection – mainly the 2004N NWL and government policy documents– and informal and semi-structured interviews with civil servants in different areas of the CONAGUA and at different points of time, including Mr Guillermo Chavez, former Manager of the River Basin Management Office of the CONAUA, Mr Jose Alfredo Galindo, Deputy Manager of the Santiago Lerma Chapala Basin of the Basin Management Office, Dr Guillermo Chavez Guillen, Manager of the Technical Deputy Direction of the CONAGUA, Dr. Fernando Trueba, former Manager of the MASAS Programme, Dr. Sergio Vargas, former member of the Social Participation Unit of the IMTA, and Dr Stephen Foster and Dr Hector Garduño, members of GW-MATE Programme at the World Bank. Some of the argumentations presented also benefited from informal interaction with groundwater users members of the COTAS in several venues across the country and at different points in time. I extend my appreciation to all them.

⁹⁶ From now on in this document I will distinguish the CONAGUA COTAS from the State of Guanajuato COTAS, by referring to them like this.

⁹⁷ The content of this section is based in secondary data collection –as indicated throughout the chapter in the referencing– and from interviews with Mr Ricardo Sandoval, former-Director of the CAEG, Mr Jorge Montoya, former Social Participation Manager of the CEAG, and Mr Jorge Avelleyra, Manager of Social Participation of the CONAGUA State Office in Guanajuato, and several Guanajuato COTAS Presidents and Technical Managers during a focus group co-organised with the CONAGUA State Office in Guanajuato.

was the first one established in the state of Guanajuato, and through a process that attempted to follow a bottom-up and inclusive approach. So using the analytical power established in the heuristic-analytical device, another section of this chapter is devoted to determine the developmental, public sphere and institutional effects of the Laguna-Seca COTAS, describing also some of the most important preconditions that seem to have affected their attainment. Again some general insights are offered, some of these highlighting the role of ‘individual agency’ and countervailing power in the process of institutional development.⁹⁸

Finally, a last section of this chapter presents some ‘end comments’ regarding the most relevant insights found from the implementation of the third and fourth moments of analysis.

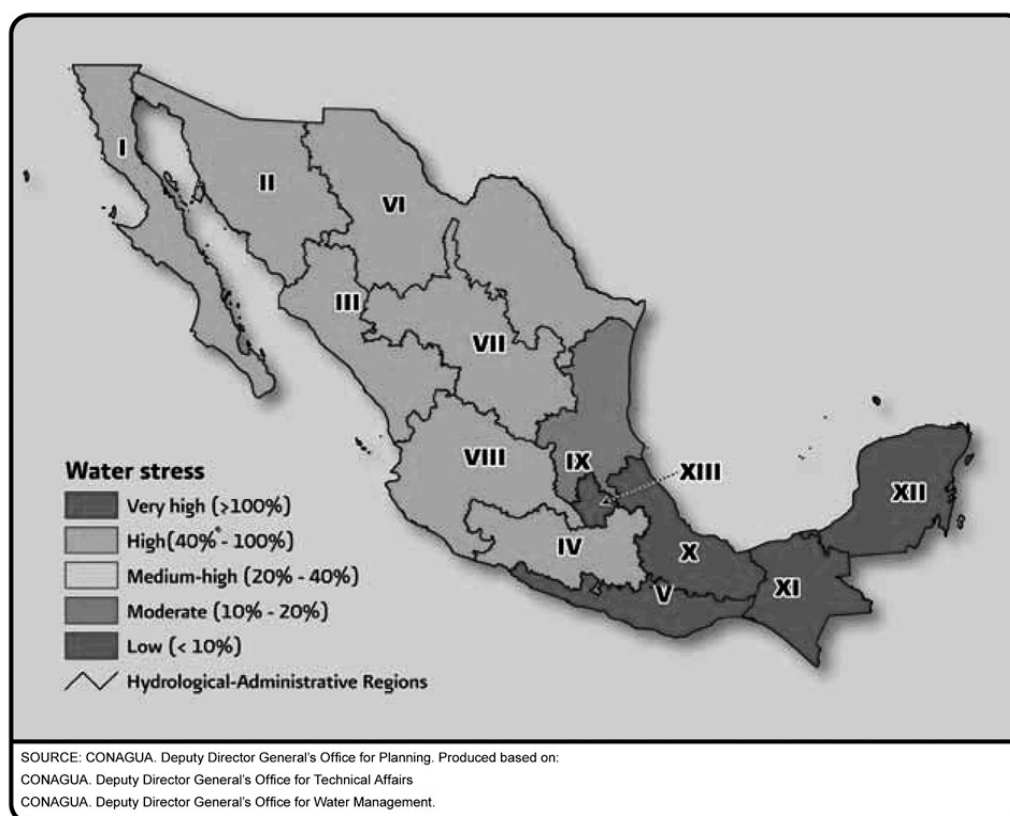
6.2. Groundwater Management in the Mexican Water Polity: Elements of the Historical Background and the Institutional Development Process

Mexico’s rapidly growing agricultural expansion, industrialisation and urbanisation throughout the 1940’s onwards –during the period of the *Desarrollo Estabilizador*– led to an increasing demand for water resources nationwide, which was met by the use of both surface and groundwater resources, placing them under severe over-exploitation pressures. Whilst in the case of surface water, regulation was explicitly considered in the 1917 Mexican Constitution –and through a series of laws and regulations that somehow incipiently protected and managed it since then–, the same however did not happen for groundwater, leaving the door open for its uncontrolled exploitation by whosoever basically had the financial resources to drill wells and had access to pumping technology and electricity. During this long period of time groundwater water users considered it an ‘open access resource’ (*un recurso de libre alumbramiento*) (Dominguez and Carillo Rivera, 2007). In time, this situation –paired with the rise of modern deep drilling technology– created a severe groundwater over-exploitation crisis that demanded a State response. From 1945 onwards, and as result of the growing awareness regarding the far-reaching consequences of groundwater over-exploitation, the SRH –responsible at that time for water resources management– imposed a series of ‘groundwater exploitation prohibition zones’ (*zonas de veda*) across the country and over aquifers deemed to

⁹⁸ The arguments presented in this section are based on interviews with the Laguna-Seca COTAS Technical Management Team, its Board of Governors and some of its membership. The findings are also product of a limited participant observation during the Laguna-Seca COTAS deliberative meetings.

be at risk of over-exploitation and in regions with severe water stress.⁹⁹ In 1947 a new specialised entity within the SRH, the Groundwater Management Office, was created, with the task of ensuring the enforcement of these prohibition zones, and also of developing a systemic geo-hydrological inventory of groundwater resources in the country, an instrument that will serve to manage them in the future.

Figure 12: Water Stress in the HARs



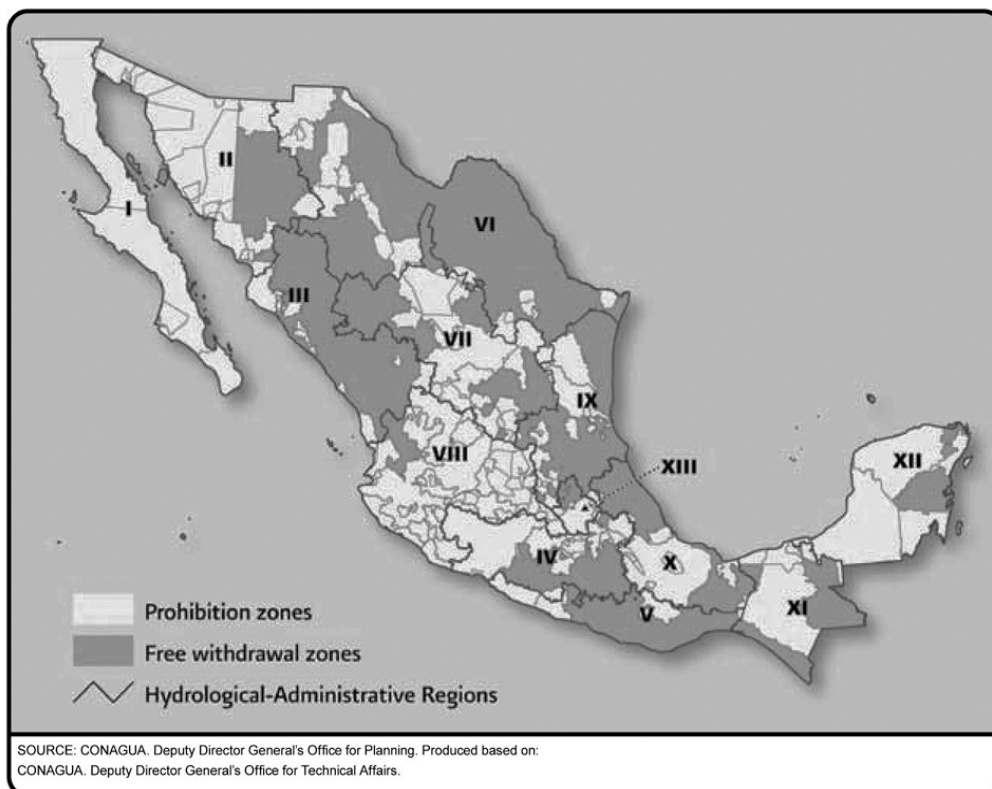
CONAGUA, 2012

Later, in 1948 and 1949 other groundwater laws were approved whereby certain 'groundwater abstraction ceilings' (*limitaciones de extracción*) were fixed according to the estimated groundwater availability of the aquifers. Also more groundwater exploitation prohibition zones were declared, and a 'groundwater exploitation permit-authorisation process' (*permiso de abstracción*) was established. This last administrative measure 'forced' all potential groundwater users to request an

⁹⁹ The 'groundwater exploitation prohibition zones' establish a partial or total ban – depending on the seriousness of the situation – of groundwater abstraction. Mostly, the way this legal instrument works is that only the water users that already have groundwater exploitation concessions in the respective aquifer may continue to exploit it, but no 'new' concessions may be granted or only under a very strict imposition of abstraction caps.

abstraction permit before using groundwater resources for any purpose. In 1948, a new Groundwater Management By-Law clearly established the validity and legality of the aforementioned regulatory and administrative instruments, and also presented the concept of 'secure abstraction yield' (*tasa de abstracción segura*), which basically established a groundwater abstraction rate deemed 'safe' in relation to estimated groundwater availability and replenishment ratios, and calculated for some important and over-drafted aquifers in the country. In 1956 yet another Groundwater Management By-Law was enacted in substitution to the 1948 one, this time stipulating different types of prohibition zones declarations: fixed, flexible, and controlled zones. During the 1950's approximately 50 prohibition zones declarations were enacted across different areas of the country, but mostly in the semi-arid and arid regions of the central highlands –el Bajío region, including the States of Queretaro and Guanajuato– and the north and north eastern regions also (Dominguez and Carillo Rivera, 2007).

Figure 13: Groundwater Abstraction Prohibition Zones (present time)



CONAGUA, 2012

Irrigated agriculture is the most important consumer of groundwater resources. In 1951 the SRH reported the existence of 55 Irrigation Districts in Mexico, with an overall productive surface of 1.1 million ha and plans to expand to another 1.9 million. This number was reached in the 1970's, and today remains approximately at 3.5 million ha across 85 Irrigation Districts. It is relevant to mention that this 'irrigated agriculture surfaces' are located mostly in semi-arid and arid regions in the north of the country, where water stress was already a problem. Irrigation Units are also important groundwater consumers. They represent close to 3 million ha of irrigated agriculture, half of these again are also situated in semi-arid and arid regions. Together they sum 6.5 million ha, making Mexico the sixth country in the world in terms of irrigated agriculture surface. The importance of groundwater resides in that estimates establish that it sustains the irrigated agriculture of about 2 million ha (a third of the total number) (Moreno, Marañón, and López, 2010).

Another important policy instrument started to be implemented in the 1960s, the 'aquifers extraction by-laws (*reglamento de extracción*). After an exploitation prohibition zone was established over an aquifer what followed –at least theoretically or in terms of due legal process– was the enactment of the aquifers' extraction by-laws. This policy instrument clearly stipulated the 'secure abstraction yield' for the aquifer and thus the overall amount of groundwater to be extracted by all the groundwater users on a yearly bases. Initially, the SRH (and after 1976 the SARH) implemented the aquifers extraction by-laws in a top-down and centralised manner, the first cases being several aquifers in the State of Coahuila and the State of Baja California (north eastern territories) and in the Comarca Lagunera (at *el Bajío* region). In reality there was no form of social participation, no stakeholder cooperation and no consensus-building process. The new by-laws were made public through an official 'public gathering' in a government office and through newspapers and other communication media. Also the by-laws were not accompanied by a groundwater management plan or by any financial resources to implement water efficiency and water productivity measures. The CONAGUA 'naively' hoped for groundwater users to 'automatically' self-organise in order to comply with what was stipulated in the by-laws. Not surprising, these by-laws were mostly unsuccessful in stabilising the aquifers, as groundwater users continued with the over-abstraction trends regardless.¹⁰⁰ They remained 'death letter' and so the protocol in the implementation

¹⁰⁰ The groundwater management best practice considers that it is best to first design the aquifers groundwater management plan, clearly establishing: the situation of the aquifer, different trade-offs scenarios, groundwater policy measures, the financial costs, and the

of this instrument had to be changed, but as I will explain later it remains an extremely complex instrument with little applicability (Marañón and Lopez, 2008).

During the 1960's the situation continued to deteriorate for a number of important reasons. First, water users began to exploit important legal loopholes. Briefly described, the problem is that the prohibition zones declarations in all the aquifers only considered banning groundwater abstraction in the areas where the 'groundwater abatement/depression cones' (*conos de abatamiento*) were found, not banning exploitation across the rest of the aquifers surface; a situation that ultimately implied continuing to over-exploit the aquifers.¹⁰¹ Second, new pumping technologies were more readily and cheaply available, as well as electricity. Consequently, the phenomenon of the 'tragedy of the commons' was generally amplified, especially in the already over-exploited aquifers, as groundwater users continued to over-exploit them, because "every body else was doing it", and "everybody wanted to maximise their yield in the shortest period of time". Third, the State also started to use another legal instrument, the 'prohibition amnesties' (*amnístias de prohibición*) that granted exclusive groundwater exploitation permits to the agricultural sector –the *Ejidros* and also private landowners. This decision was justified in terms of socio-economic development priorities in rural areas, but in reality represented an attempt to maintain and foster clientelist relations and also to allow powerful large landholders to continue using groundwater, and in detriment of the sustainable and democratic management of aquifers (Dominguez and Carillo Rivera, 2007;Marañón, 2010).

Years later the 1972 National Water Law (1972 NWL) declared in an explicit and uncontested way that groundwater was property of the Nation and that groundwater abstraction control and management was a matter of public interest, and exclusive remit of the central State. More specifically the 1972 NWL specified that the SRH had the responsibility of establishing and enforcing prohibition zone declarations wherever deemed necessary, and of regulating all aspects pertaining to abstraction permits authorisations, and pumping technology characteristics. This Law also established that under conditions of severe groundwater over-exploitation and

implementation schedule. It is only after all of this is established through an intensive consensus-building process, when the lawyers and experts come in to draft the aquifers by-laws.

¹⁰¹ An abatement/depression cone is a zone where the water table is lower and to deeper levels than the average static water level in any respective aquifer, sometimes representing important differences of approximately 20 to 25 meters. Abatement cones form around areas of intensive groundwater abstractions where many wells constantly exploit the resource.

scarcity, the use of groundwater for WS & S services is a priority and over the rest of the other water uses (*prelación de usos*). This LAW effectively integrates all the relevant institutions, laws and by-laws, and administrative processes in one comprehensive legal body. Still, the general orientation of the 1972 NWL followed a centralist, hierarchical and top-down rationale. For B Marañón and D Lopez (2009) two of the few scholars researching this phenomenon in Mexico, the problem had a very clear driver: groundwater management through history has been subject of a political and economic rationale that self-defeats any of the legal and regulatory efforts. They comment on this situation:

“Historically, the management of groundwater resources has been characterised for being centralised, ambiguous, and inefficient. In reality, the State never really tried to regulate groundwater extraction, even less to try to contain the increasing groundwater over-exploitation processes that have been registered since the 1940’s in the arid and semi-arid regions of the country. The central concern of the State has been more socio-political and economic: the search for political legitimacy in the countryside, promoting agricultural growth, and industrialisation. In this context, groundwater became only a factor of production and capital accumulation, without any other consideration, and without any form of regulatory barriers.” (Marañón and López, 2009: 79, Translation: Mine)

By 1975, when the 1975 National Water Plan appeared, the groundwater resources situation was already extremely serious, 32 very important aquifers supplying water to important urban settlements and also agricultural regions started to show overdraft signs (CONAGUA, 1975). It was again clear that the centralist-regulatory approach was not controlling groundwater over-exploitation, especially in regions with high levels of economic development. Initiating the 1980’s, the process of producing aquifers extraction by-laws began to be supported by some form of incipient social participation through the organisation of groundwater users. The SARH –in charge then of water resources– made efforts to develop ‘water groups’ (*grupos de agua*), with the purpose of generating consensus regarding the content of the aquifers extraction by-laws. The first water group was established in the Comarca Lagunera region, followed by the Santo Domingo region (in Baja California). These water groups initially were extremely fragile, their roles were kept ambiguous, and they did not have any collective organisational and financial resources to implement actions. In reality only two by-laws were produced, one for the Santo Domingo Aquifer and

another one for the Costa de Hermosillo aquifer.¹⁰² Still, somehow they represent the antecedent of the MSPs for groundwater management, COTAS (Marañón and Lopez, 2008).

By the 1990s, Mexico's population was already predominately urban. Under this situation groundwater over-exploitation to support WS & S services increased substantially, as groundwater provides approximately 70% of the water used for WS & S services in cities (that concentrate about 60 million inhabitants), and also industry in a very high percentage, as individual industries and industrial parks usually rely on groundwater for industrial processes, through important 'deep wells concessions', even in water stressed regions. Starting the decade of the 2000s, O. Escolero (2006), a prominent Mexican hydro-geologist, began to warn about the process of 'water rights transfers' –and mostly through an informal water rights market– from small agricultural producers –the *ejidatarios* and small landholders– to the largest water users –mainly agro-industries that produce for domestic and international markets, and also to growing urban centres.¹⁰³ He also warned about the dramatic localisation of groundwater over-exploitation in certain areas of the country:

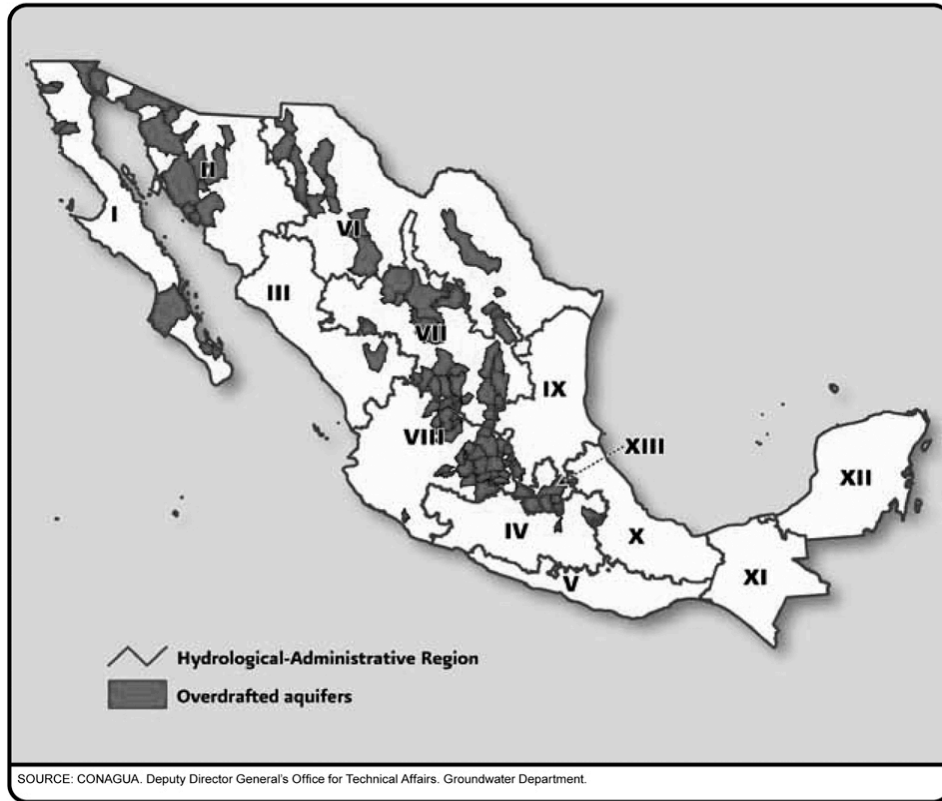
“A document elaborated by CONAGUA's technical area responsible for the management of groundwater resources, described the decline in the quantity and quality of groundwater, the existence of high risk regions and the critical aspects, as well as the lack of sufficient technical and scientific knowledge on this matter. The diagnostic was appalling, of 32 overexploited aquifers identified in 1975, this number increased to 104 in 2006, this is to say, that in three decades the number increased threefold. More so, the relevance of this

¹⁰² It is relevant to comment that in both cases the groundwater users represent an homogeneous group of water users that produce similar products and that have financial resources to support groundwater management activities on their own, including the production of hydro-geological studies. In this case, the majority of groundwater users share the same interests and have the capacity to self-organise to manage the aquifer. This is not the case for most of the aquifers in the country. These insights derive from an interview with the Technical Manager of the Santo Domingo COTAS during the Annual National COTAS Meeting in the State of Guanajuato in 2011.

¹⁰³ Unfortunately, this phenomenon of illegal water markets is expanding in several water scarce regions of the country. *Ejidatarios* and small landholders when confronted with lowering groundwater tables simply cannot pay for the drilling necessary to get to the groundwater, nor the more expensive pumping technologies. This situation together with lack of a consistent State support for agricultural production and commercialisation renders small-scale agriculture an unviable activity for them. So they sell or 'lease' illegally their water rights, most of the times at a fraction of their value. What this process really entails is an upward redistribution of wealth and a process of 'accumulation by dispossession.' Please see: Harvey, D. (2005) *The New Imperialism: Accumulation by Dispossession*, Oxford, UK, Oxford University Press. In conversations with some of the *Ejidatarios* of the State of Guanajuato COTAS they all confirm that this phenomenon is happening and some even are even part of it.

100 aquifers is that they represent approximately 20% of the 653 aquifers in the country, and that they provide close to 80% of the overall groundwater extracted.” (Escolero, 2010: 80)

Figure 14: Localisation of Over-exploited Aquifers



CONAGUA, 2012

In the 1990s when a deep process of Neoliberal Statehood transformation continued to consolidate, a number of State-strategies were being implemented to transform the Mexican water polity, and as already described in detail in the previous chapter. Along those measures, some of the most important in terms of groundwater management were the establishment of the REPDA, the Efficient Energy and Water Use Programme (*Programa de Uso Eficiente del Agua y de la Energía; PUEAEE*), the implementation of MASAS programmes –all of these programs were supported by the WB–, and the establishment of the MSPs for groundwater management. I will now turn to briefly describe these strategies, to then continue with a more in-detail narrative of the establishment and institutional development process of the MSPs for groundwater management.

- *The Establishment of the REPDA*

Already some comments were made in the previous chapter regarding the establishment of the REPDA, but one important aspect deserves to be recalled, because of its extremely negative consequences over the sustainable management of groundwater. In order to establish the REPDA, the CONAGUA convened all water users to declare the amount of surface and groundwater resources that they were using for productive purposes. The CONAGUA accepted this as a 'good faith' declaration and granted water concessions accordingly, and in exchange for water users to register in the REPDA and be subject of a future down-size regularisation. The idea was that the CONAGUA would then gradually approach each water user, assess the real amount of water used by them, and later negotiate an adjustment in the water concessions according to the real availability and use. This process did not happen, of course, as implementing it would have been extremely cost-full, would have demanded an 'army' of inspectors, would have required a lot of time, and would have demanded the implementation of extremely well thought anti-corruption measures. The present situation is that there is a 'massive' over-concession of both surface and groundwater resources. This State-strategy in fact created an incredible strong path-dependency that is now extremely difficult to revert. The following table describes this reality in approximate numbers. As the reader can see the most important groundwater user by far is agriculture. ¹⁰⁴

¹⁰⁴ This situation is extremely contradictory as the contribution of agriculture to Mexico's GDP has been during last 5 years of an average 3.5%. Please see: www.datos.bancomudial.org/indicador/NV.AGR.TOTL. In my opinion what is happening reflects a terrible lack of coordination between two very important policy sectors: the water and the agricultural sectors. It also reflects a very dramatic lack of food security. Furthermore, it is difficult to understand why scarce groundwater resources are being devoted to such 'low value' economic activities, specially if these activities are no longer really being performed by small scale landholders and *ejidatarios* –a situation that could obey to social development and poverty alleviation considerations. So then immediate questions rise: why agriculture represents such a low level of contribution to the GDP? Who in the agricultural sector is benefiting from the use of groundwater resources? Who holds the groundwater water concessions titles in the agriculture sector? Evidence is difficult to find, and because it is not easily shared by the relevant authorities. But the general opinion is, that during the last decades big agro-industries are consolidating the groundwater water concession titles, in detriment not only of sustainable groundwater management, but also of environmental justice.

Table 2: Groundwater Concession Titles and Abstraction Volumes REPDA, 2009			
Groundwater Use	Water Concession Titles	Water Abstraction Volume M3/year	Percentage
Agriculture	114,674	17,600,606,197	60.6969
Agro-Industry	56	5,102,257	0.0176
Domestic	14,322	26,753,182	0.0923
Aquaculture	153	18,485,610	0,0637
Services	4,731	660,773,846	2.2787
Industry	4,490	1,442,063,692	4.9731
Livestock	20,411	124,611,218	0.4297
Urban-Public	54,402	6,952,349,814	23.9756
Multiple	30,722	2,165,639,302	7.4684
Energy	1	778,857	0,0027
Commerce	3	106,280	0.0004
Others	4	281,416	0.0001
Total	243,969	28,997,551,671	100
Note: This table was taken from Moreno, J; Marañon, B and D Lopez (2010), "Los acuíferos sobre explotados: origen, crisis y gestión social, en Jimenez, B, Torregrosa, M L and L Aboites (2010) El Agua en Mexico, Cauces y Encauces, México, DF, Mexico, CIESAS.			

Very relevantly, the establishment of the REPDA also allowed the enablement of water markets and water transfers. This situation paired with another important and consequential Neo-liberal reform (during President Salinas de Gortari's term 1998-1994), the Constitutional Reform of Article 27, that allowed the *Ejidatarios* to 'partner with private capital' and to concede (*enajenar*) their land rights to the private sector to use their agricultural land for productive purposes, enabled also an important 'land and water grabbing' processes by large domestic and international agro-industries.

- *The PUAAE Programme*

In Mexico there is a perverse electricity subsidy, the tariff 09, that encourages tremendous groundwater spillage. The estimated annual subsidy for agricultural groundwater pumping is approximately of US\$900 million/year (Centro Mario Molina, 2012). There is widespread international and national consensus of the negative

effects of this form of subsidy (OECD, 2003; WB, 2005; UNESCO, 2008, CIDE-SAGARPA, 2004, Carabias and Landa, 2006), but despite several attempts to remove it, there has been widespread opposition from the agricultural sector, and so because of the social and political risks involved in pursuing changes on this matter, the situation remains the same. Accordingly, other attempts have been tried to control groundwater over-exploitation through the water-energy nexus. The Efficient Energy and Water Use Programme (*Programa de Uso Eficiente del Agua y de la Energía; PUEAEE*), established in 1990, sought to control groundwater over-exploitation through water and energy efficiency measures. The objective of this Programme was to encourage savings in both water and energy by the technological modernisation of pumping equipment, and thus the savings in electricity. In exchange for government investments –of 50% / 50%– for pumping equipment updating, groundwater users would commit to reduce withdrawing water in an amount proportional to the saving made from using this new equipment. Unfortunately, this technical approach also failed, as reports (World Bank, 2004) estimate that agriculturalists instead of actually saving the water, they use the new equipment to expand their agricultural frontier. Due to this reason the PUEAEE was terminated in 2012.

- *The MASAS Programme*

The MASAS Programme sought the objective of ‘stabilising’ a group of important aquifers that served as pilot projects to test a number of policy assumptions regarding groundwater management practices. Accordingly, five aquifers were selected to participate: the Valle of Aguascalientes, the San-Juan del Rio Querétaro, the Bajío-Guanajuato Corridor, and the San Luis Potosi and Costa de Hermosillo aquifers. The MASAS programme implemented a number of activities, including the hydro-geological characterisations of the aquifers, and several forms of modelling studies to establish their extraction and replenishment rates under different economic development scenarios; the establishment of MSPs, the CONAGUA COTAS; the development of the aquifers’ groundwater management plans –in consensus with the groundwater users–, and that included the design of a number of ‘technological modernisation’, water productivity, and water rights transfers strategies; and finally the development of the aquifers’ abstraction by-laws. In all cases the final step of

actually designing and enacting the aquifers' by-laws was not actually achieved.¹⁰⁵ Moreno, Marañon and Lopez (2010) comment on the implementation of the MASAS programme:

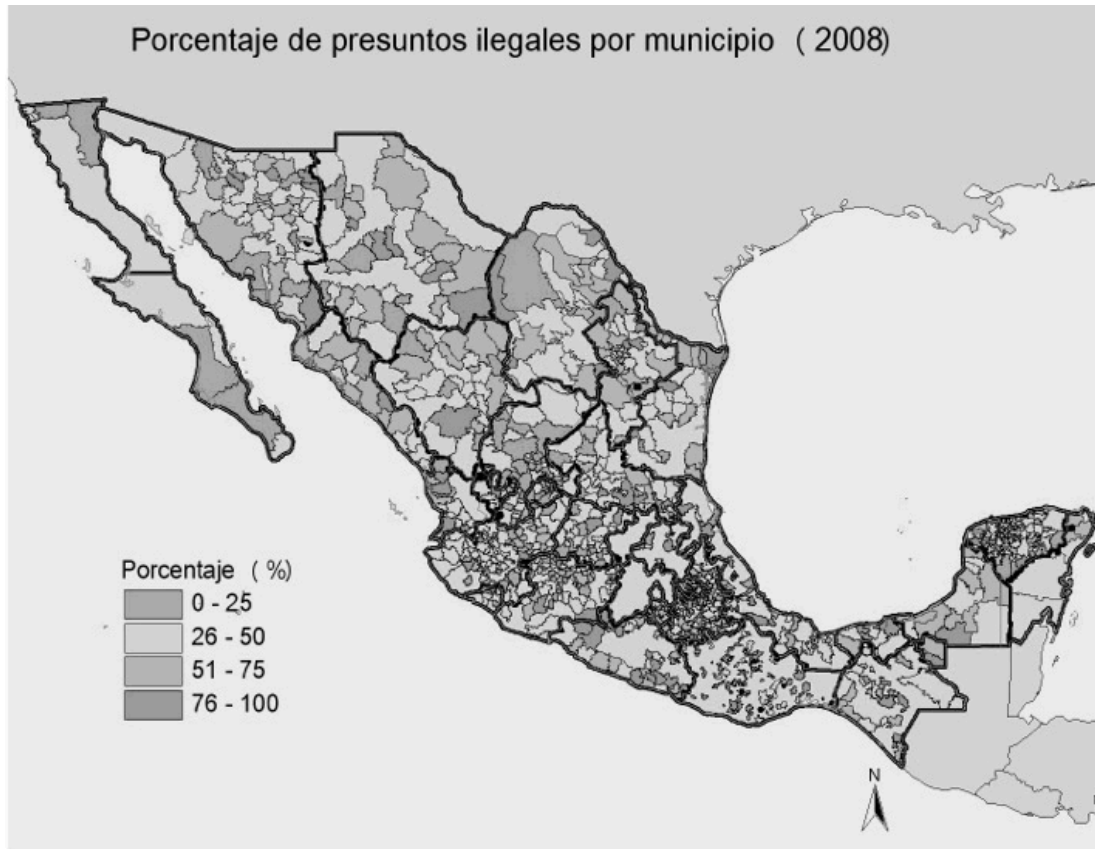
“The MASAS Programme had the objective of stabilising the Valley of Aguascalientes, San Juan del Rio-Querétaro, el corredor del Bajío-Guanajuato, San Luis Potosi, and the Costa de Hermosillo aquifers. In the Final Report all the institutions involved comment that the Programme had been successful, although in reality it did not really achieve to reduce the over-exploitation rate, but at least contributed in stopping its increase. Furthermore, the Report clearly establishes that in the opinion of the experts, groundwater over-exploitation is determined by a perverse electricity subsidy, the 09 electricity tariff, that basically encourages the pumping and use of groundwater uses to non-competitive and profitable water uses, that basically ‘costs’ the Mexican society an enormous amount of economic resources and contributes to generating greater water scarcity. So, the sustainability of groundwater resources depends in a radical change in the subsidies policy in agriculture. It also accepts that due to the complexity and the sheer size of groundwater over-exploitation in Mexico, the solution to this problems is not foreseeable in the near future.” (Moreno, Marañon and Lopez, 2010: 93)

Presently, the groundwater management situation depicts the following scenario. Up to 63% of national consumptive water use comes from surface water and 37% from groundwater. Agriculture is the main groundwater user across the country (60%), followed by domestic-public use (24%), and then industrial use (5%). Groundwater abstraction is estimated at 29,000 Mm³, 20% more than in 1994. Groundwater use is concentrated up to 71% in semi-arid and arid regions of the country (CONAGUA, 2010). The number of over-exploited aquifers surmounts to 106 (2013), out of 653. This situation by all means represents a grave water security concern. As described in the previous sections of this chapter, the centralist, regulatory and technical-administrative State-strategies implemented throughout history and more recently under the aegis of the World Bank have failed to address the grave groundwater management challenge faced by the Mexican water polity. An estimate by the Centro Mario Molina (2008) considers that almost 25% of the irrigated agriculturalists are illegal groundwater users. I know will turn to describe another important State-

¹⁰⁵ The Querétaro Valley COTAS, that was initially the research sample of my doctoral research no longer functions, despite having produce a number of technical documents, and having been part of an expensive and extremely visible World Bank Programme under the support of the GW-Mate, the specialised groundwater management policy advice unit of the World Bank. In conversations with the former Technical Secretary of the Querétaro Valley COTAS, Mr. Ramon Gamez, the main reasons behind its withering-away were the difficulties in actually producing an Aquifer By-Law and the construction of a massive aqueduct that ‘guarantees’ water security for the region for the next 100 hundred years, a policy decision that somehow create the wrong incentives for water demand management strategies.

strategy used to address this situation: the establishment of MSPs for groundwater management, the COTAS.

Figure 15: Localisation of illegal Groundwater Use



Source: Centro Mario Molina, 2013

6.2. The Establishment of the MSPs for Groundwater Management, COTAS, in the Mexican Water Polity

In an attempt to address a complex and interdependent groundwater over-exploitation problem, the CONAGUA started establishing in the mid 1990s a new kind of socio-political governance arrangement, the Groundwater Management Technical Committees or COTAS. These MSPs for groundwater management were, in principle, created as part of the Neoliberal Statehood strategy to enable greater social participation/involvement and stakeholder cooperation to support a more sustainable, effective and democratic groundwater management. Several drivers impelled this response. First, the government's growing recognition of the alarming increase in the number of aquifers being over-exploited and manifesting lowering water tables, a decrease in the quality of groundwater, increasing electricity costs, and a growing number of conflicts between groundwater users. Second, the very limited State's capacity –financially, institutionally and technically– to undertake the

necessary, expensive, and complex geo-hydrologic studies needed to establish the scientific bases for groundwater management, a situation that demanded other solutions based on consensus-building and alternative conflict resolution. Third, the presence of a more 'enabling' environment that supported –at the level of discourse at least' the implementation of 'decentralisation' and 'participatory' processes. Fourth, the lessons learned from the experience of the Valley of Santo Domingo, where groundwater users organised as working groups to discuss their problems and later address them through collective action.

It is important to mention that at time, the 1992 NWL and the 1994 By-Laws were still very ambiguous regarding to the role of social participation and stakeholder cooperation in the management of groundwater resources, and in reality this legal instruments only made very general comments in reference to the COTAS. The only legal anchorage was a very vague mention to the existence of some form of 'auxiliary bodies' to support the State in groundwater resources management (Marañón, 2000). It was not until some years later with the enactment of the 2004 NWL that the COTAS's objectives and institutional design structure was more clearly defined.

6.2.1. MSPs for Groundwater Management, COTAS: Institutional Analysis

The institutional analysis of the MSPs for groundwater management, COTAS, presented in this section will be supported by the analytical elements offered by the MSPs' literature presented in chapter 2 of this document and supporting the analytical power of the third moment of analysis. Accordingly, the institutional analysis of the MSPs for groundwater management, COTAS, will address the following institutional dimensions: scale, scope, institutional structure, stakeholder involvement (rights, responsibilities and roles) and the effectiveness, efficiency and equity.

- *The Scale of MSPs for Groundwater Management, COTAS*

The scale of the MSPs for groundwater management, COTAS, centres at the level of the aquifer. This is to say that the management unit is the aquifer. Aquifers can cover extremely huge surfaces of land, a situation that certainly complicates the

management process.¹⁰⁶ As already mentioned, there are 653 aquifers identified in the country of which 106 are currently identified as being over-exploited (Conagua, 2014). Presently, there are 76 COTAS established in the country, principally over the most severely over drafted aquifers. Albeit this definition of the COTAS's scale seems quite straightforward, there are some important technical and institutional issues that seem important to highlight.

First, identifying the physical limits and establishing the size of an aquifer, as well as characterising its behaviour (extraction rate, recharge or replenishment rate, connectivity flows with other aquifers, water quality, dynamic and static water levels, etc.) is a complex processes that requires the development of comprehensive and expensive hydro-geological studies. Without these studies it is extremely difficult to really understand the over-exploitation challenges faced by the aquifer, and subsequently proceed to design the groundwater management plans and the aquifer's abstraction by-laws. Not many actors (e.g. research centres, universities, private firms, etc.) have the necessary knowledge and technological devices to support this type of analysis.

Secondly, groundwater users of a respective aquifer withdraw groundwater water through 'wells' that are either legally registered –through water concession titles that establish the exact location of the well, the amount of water that the user is allowed to extract per year, and the type of pumping technology to be used– or that are illegal or clandestine. Wells are mostly situated in private property or in *Ejido*-land, a situation that makes enforcement very difficult. Inspection processes require due administrative and legal preparation, are expensive to undertake, and usually take a long time. Ultimately, at the centre of groundwater management is the control of groundwater abstraction at the wells, a situation that frequently implies a reduction in the amounts prescribed in the concession titles, something that usually confronts resistance from groundwater users. Consequently, the management of groundwater is extremely difficult to achieve through centralised and hierarchical strategies, and thus require a different governing approach.¹⁰⁷

¹⁰⁶ This situation has prompted several experts to suggest that it would be better to establish smaller groundwater management units. Please see: Moreno, J L; Marañón, B and D Lopez (2010) "Los acuíferos sobreexplotados, origen, crisis y gestión social" en Jimenez, B, Torregorsa, M and L Aboites (2010), *El Agua en México: Cauces y Encauces*, México DF, Mexico, CIESAS.

¹⁰⁷ Personnel at the CONAGUA State Office in Guanajuato tell 'stories' about how groundwater users receive them with 'machetes' in hand when they want to inspect their wells. So this situation also complicates enforcement considerably.

Third, groundwater resources are 'common pool resources' a situation that creates important groundwater management challenges, frequently referred to as the 'tragedy of the commons'. The central management issue in terms of the tragedy of the commons is how to best limit the use of natural resources so as to ensure their long-term, democratic and equitable socio-economic and environmental viability (Ostrom, 1990; Ostrom, Gardner, and Walker, 2006). Accordingly, advocates of centralised government regulatory approaches consider that the State should be at the centre of this process. Supporters of market forces consider that markets are the best equipped to this. However, evidence shows that neither the State or the market have uniformly successfully prevented the depletion of common pool resources, and so other pathways have been sought, including community-based approaches, and, more recently the design and implementation of socio-political governance arrangements (Ostrom, 1990; Ostrom, Gardner, Walker, 2006).

Common pool resources share three primordial characteristics: subtractability or rivalness, are exposed to the free rider dilemma, and uncertainty. Subtractability refers to the notion that as one person/user 'harvests' or 'uses' from or deposits in the resource base, that person/user diminishes the ability of others to the same. It is this characteristic that may lead to the overuse or congestion, and eventual depletion of the resource (Ostrom, 1990; Dolsak and Ostrom, 2003). The second shared characteristic relates to the cost of excluding potential beneficiaries or users from having access to the resource base. Common pool resources –as well as public goods– have the problem that potential beneficiaries may face the individual temptation to become a 'free rider'. This means that they will seek gains or benefits without contributing to the activities and the costs of providing, maintaining and regulating the resource involved (Dolsak and Ostrom, 2003). This dimension of the problem is also termed non-exclusivity. There is one last aspect that is important to consider, which is uncertainty. Evidence has shown that most common-pool resources exhibit a high level of uncertainty in their behaviour, because in the end, they are complex resources and also because socio-economic interactions with such resources are also complex (Dolsak, 2003).

These common pool resources management problems –subtractability, the free rider situation, and uncertainty– require then institutional designs capable of addressing them. In theory MSPs offer this management potential, but only if certain conditions apply, as will be discussed later in this chapter.

- *The Scope of the MSPs for Groundwater Management, COTAS*

The scope of the MSPs for groundwater management, COTAS, is established across several official documents, including amongst the most salient: the 2004 NWL, the *Organisation and Operation Rules of the RBCs and Auxiliary Bodies* (CONAGUA; 2000), and the *Basic Documents of the River Basins Councils and Auxiliary Bodies* (CONAGUA, 2010). The scope of the MSPs for groundwater management, COTAS, can be organised according to the following 5 dimensions: planning, studies and information gathering; promotion, socialisation and social participation; management, coordination, and consensus-building/conflict-resolution; finance and economic evaluation; and accountability, monitoring and evaluation.

Planning, Studies and Information Generation:

- Propose public policy guidelines for the management of the aquifers.
- Participate in any groundwater management planning process with the objective of formulating the groundwater management plans in line with broader national water resources planning objectives.
- Provide support and advice regarding the execution of programmes and actions to meliorate the groundwater management and develop relevant water infrastructure to support the sustainable management of the aquifer.
- Provide opinions regarding to the main problems and strategic actions required to achieve the sustainable management of the aquifer.
- Participate in the analysis and evaluation of any technical studies on the aquifers' groundwater availability and behaviour, groundwater use, sustainable groundwater management, quality concerns; and provide criteria to select the most relevant actions deemed necessary.
- Establish relevant task forces to support the analysis of problems and the design of policy measures and initiatives.
- Support in the generation of information to be included in the National Information System.
- Retrieve from the groundwater users any opinions and information that may be useful for the sustainable management of the aquifer.

Promotion, Socialisation and Social Participation:

- Support the knowledge and socialisation of the national water policy guidelines and the legal frameworks amongst groundwater users.

- Support the socialisation and acknowledgment of the groundwater policy guidelines, programmes and actions to be implemented by the CONAGUA in the aquifers.
- Support the knowledge and socialisation amongst stakeholders of the 'groundwater availability studies and determinations' and promote the stabilisation of the aquifer.
- Promote the democratic participation and involvement of all relevant stakeholders in the National Water Plan development process.
- Promote the participation and involvement of all relevant stakeholders in the groundwater resources planning and policy/programme implementation process, including the development and implementation of the groundwater management plan and the aquifers' by-laws.
- Participate in any actions that may contribute to the betterment of the water quality and conservation of the aquifer.
- Promote the development of a 'water culture' that acknowledges that water is a scarce and vital resource, that it has an economic, social and environmental value, and that supports the implementation of IWRM.
- Design and promote water education and awareness raising programmes.
- Participate in the monitoring and evaluation of policy, programmes and initiatives implemented in the aquifers, including the groundwater management plans and the aquifers by-laws.

Management, Coordination and Consensus-building/Conflict-resolution

- Support the implementation of IWRM.
- Cooperate with the CONAGUA in the implementation of the NWL and its By-Laws.
- Support the RBCs and the RBOs in their functions and coordinate with them any policies, programmes and actions that may be required for the sustainable management of the aquifers.
- Support the involvement and coordination with relevant central, state and local authorities in any relevant planning and implementation process of programmes and actions to address the sustainable management of aquifers.
- Support the CONAGUA in the enforcement of the law and by-laws related to the sustainable management of aquifers and through social participation/involvement and stakeholder cooperation.
- Support the implementation of the 'groundwater extraction prohibition zones'.
- Contribute in the development of any necessary water infrastructure to support the sustainable management of the aquifer.
- Legitimately represent, through its Executive Board, all the groundwater users of the aquifers in the context of the RBCs.

- Receive and channel suggestions, official applications (for administrative matters), complaints, and denunciations regarding the use of the aquifer.
- Promote the gathering or concurrency of technical, financial, material and technological resources that may contribute to the sustainable management of the aquifer.
- Cooperate in conflict resolution and consensus-building regarding the use and distribution of the aquifer's groundwater
- When necessary request the CONAGUA or the respective RBC to intervene in any conflict-resolution situation.
- Support in the design and implementation of any Agreements of Cooperation between the COTAS and any relevant authority or stakeholder.

Finance and Economic Valuation

- Promote the coordination and complementarity of financial resources destined to support the sustainable management of the aquifers.
- Create a trust-fund to carry out studies, projects and initiatives that may contribute to the rational and efficient use of the aquifer's groundwater.
- Support the development of any financial feasibility plans to support the implementation of any policies, programmes and initiatives that may contribute to the sustainable management of the aquifers.
- Cooperate with the CONAGUA in the implementation of the National Water Finance System.
- Contribute in the socialisation and enforcement of the 'economic value', water-user and pollution-payment principles.

Accountability, Monitoring and Evaluation

- Support the monitoring and evaluation of any policy, programme and initiative implemented in the aquifers.
- Support the establishment and implementation of any accountability mechanisms deemed necessary to support a transparent implementation of any policy, programme and initiative in the aquifers

All these aforementioned functions appeared in several policy guidelines and have not been altered in their narrative. They have only been regrouped and fit in the different dimensions. The translation is mine. In reality when we look in more detail at the 'real scope' of the Laguna-Seca COTAS –as a research sample of the COTAS– we find that it is considerably more narrow and 'peripheral' than the one described in the 2004 NWL and the policy documents. Usually what happens is that

the COTAS needs to design an Annual Work Programme in coordination with the CONAGUA, and that later is implemented through the year. This Programme comprises activities that although relevant, are definitely more reduced and have little 'real' impact over groundwater over-exploitation. The CONAGUA provides most of the financial resources for this Annual Work Programme.¹⁰⁸

- *The MSPs for Groundwater Management, COTAS' Institutional Structure*

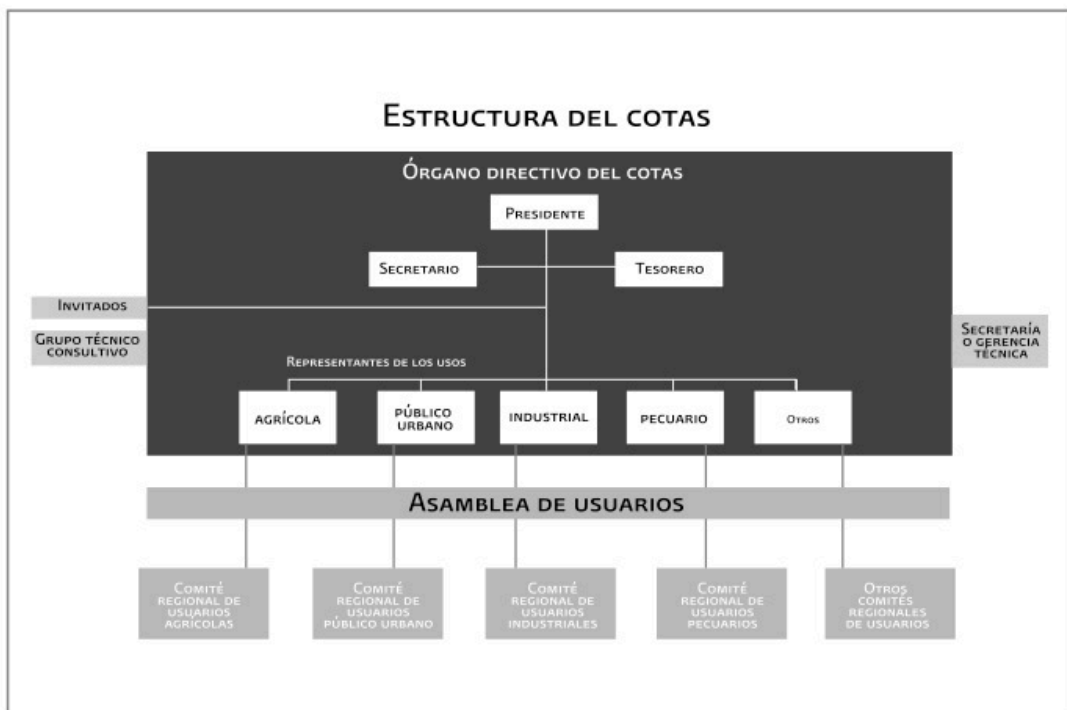
The institutional structure of the MSPs for groundwater management, COTAS, is also established in the 2004 NWL, the *Organisation and Operation Rules of the RBCs and Auxiliary Bodies* (CONAGUA; 2000), and the *Basic Documents of the River Basins Councils and Auxiliary Bodies* (CONAGUA, 2010). The institutional structure is comprised of the following entities: the Aquifers Water Assembly, the Governing Board, the Consultative Technical Group, the Water-users Vocals, the Consultative Water User Groups, the Technical Secretary, and the Invitees. The following is a brief description of this structure.

- **Aquifer's Water User Assembly:** The Aquifer's Water User Assembly represents the social basis of the respective COTAS. In reality it is not an entity, but more so of the political meeting place where all the water user groups in the aquifer 'meet' for mainly two purposes: to select the COTAS representatives and to discuss 'groundwater resources management' matters. So, in this sense, the Aquifer's Water User Assembly is also a deliberative arena. All the water users recognised in the NWL can participate in the Assembly, including: agriculture, social, livestock, industry, aquaculture, and urban-public. In principle the water assembly should meet at least three times a year, but can be convened to address any extra-ordinary matter.
- **President, Treasury, and Secretary (part of the Governing Board):** These individuals are entrusted with the coordination of the activities and the initiatives of the COTAS and representation of the COTAS's members *vis à vis* any government authorities and other external parties. They are also entrusted with the management and accountability of the COTAS's financial resources. The three posts are chosen through a democratic process and by the Water User Assembly of the Aquifer.
- **Consultative Technical Group:** It is comprised by the federal and state government representatives of agencies directly involved in water users' economic development and productive activities and with a remit of authority that includes the respective aquifer's zone.

¹⁰⁸ In Annex 4 of this document the reader can find one example of the Annual Work Programme of the Laguna-Seca COTAS. All the different activities performed by the COTAS are included, and it is possible to assess that most of them are related to technical studies, census, capacity building and facilitation. So there is a sharp comparison between the institutional scope that appears in the policy documents and the 'real' scope of the Laguna-Seca COTAS.

- Water-users Vocals (part of the Governing Board: These individuals represent the different water user groups, including agriculture, social, livestock, industry, aquaculture, and urban-public groups. The number of water user vocals active at any given time is decided by the Aquifer's Water User Assembly, but it is recommended that no more than 3 individuals should represent a particular water user group, and in order to facilitate public deliberation processes, consensus-building and decision-making.
- Consultative Water User Groups: They are comprised by the all the respective water users of each of the water uses recognised by the NWL. The Water-User Vocals are the representative of these Consultative Water Groups.
- Technical Secretary: Constitutes a support unit for the COTAS. Its main role is to prepare and provide all the necessary technical information for the analysis and discussion of the aquifer's and the water users' problems. It is also provides logistical support for all matters concerning the functions and activities of the COTAS. This role can either be assumed by a CONAGUA's civil servant –the preferred option by CONAGUA– or by any citizen selected for its qualifications and knowledge by the Governing Board.
- Invitees: This group is open to any representative of universities, research centres, non-governmental organisations, professional associations, and the like, that may contribute to the sustainable use of groundwater.

Figure 16: Institutional Design Structure of the CONAGUA COTAS



CONAGUA, 2012b

The most important and active entities within the institutional design structure of the COTAS are the ones that are integrated in the Governing Board and the Technical Secretary. All of the posts in the Governing Board are honorary; this is to say individuals do not receive any form of monetary remuneration for the activities they undertake on behalf of the COTAS. The Technical Secretary is the only post that carries an economic remuneration and the individual selected for the post is chosen by his/her technical expertise. The Technical Secretary is in charge of developing the Annual Work Programme and other projects. The Governing Board should in principle meet every three months, but this is not mandatory. The meeting place selected for all forms of meetings (i.e. the deliberative arenas) is selected by each COTAS, and most of the times is a public place provided by someone, either a user group that has a large enough venue or by a government agency. The Technical Secretary (the entity) has a physical office where the Technical Management Team (usually one or two persons more) work and carrying out the activities of the COTAS.

- *Stakeholder Involvement (Rights, Responsibilities and Roles)*

There are two sources defining the rights, responsibilities and roles of the stakeholders participating in the COTAS: what is generally established in the 2004 NWL, and what is established in the 'constitutive acts' of each of the COTAS as they become registered 'associations of civil society' (*asociación civil*). The 2004 NWL establishes the rights, responsibilities and roles of all the water users throughout the water resources planning and management process, and to which all citizens are subject to, must abide to and benefit from. So citizens, in principle as water users, have rights to use water resources under certain parameters imposed by the Law, and have also responsibilities that they must fulfil to be under the 'rule of the law'. Relevantly, the 2004 NWL grants all water users the participatory rights that allow them the possibility –if so they wish– to be able to become members of the COTAS, and hence to perform the roles established as part of their institutional scope. There are, of course, a number of other legal sources that structure the rights and responsibilities of water users –as citizens– such as the Constitution, the Participatory Planning Law, the Agricultural, Livestock, Rural Development, Fisheries, and Feed Law, etc., and that support also this definition. In reality there are a number of legal and planning documents that create a dense and complex system that determines these rights, roles and responsibilities, and so these documents circumscribe water users' agency. In reality knowledge of this system is what allows certain water users to benefit from these rights, responsibilities and

roles, and, on the other hand, ignorance about it marginalises and excludes a great majority of water users. Also knowledge of this system allows certain water users to contest the roles ascribed to them and to generate some form of ‘countervailing power’.

The other source of rights, responsibilities, and roles is what is stipulated in the constitutive acts of the COTAS as they become established as civil associations. Accordingly, each COTAS will become a civil association to be able to organise the rights and the responsibilities of the COTAS’s membership, and to be able to capture financial resources. These financial resources are received in the form of ‘conditional grants’ by the State, the membership contributions, and also by other donors. So for example, in such constitutive acts typically their chapters describe the membership’s prerequisites, membership categories, the association’s structure –that in this case needs to conform with the institutional structure provided by the 2004 NWL and describe above–, the membership rights –of voice, vote, exit, information, representation, financial support, membership contributions, etc. In this constitutive acts the responsibilities of the COTAS’s President, Technical Secretary, Treasury, and other functional figures is also clearly established, as well as the decision-making, management, accountability and transparency procedures. It is important to establish that the COTAS receive legal advice for the design of their constitutive acts and that institutional parameters described in the official documents supersede any parameters established in the constitutive acts.¹⁰⁹

- *The MSPs for Groundwater Management, COTAS’s Efficiency, Effectiveness and Equity: Commentary on the Drawbacks and Contradictions*

When looking at the ‘impressive’ list of ‘scope functions’ of the MSPs for groundwater management, COTAS, the first impression is that they could be extremely active and influential institutions, but this is not really the case, and for a number of reasons. Ultimately, despite the efforts made by the COTAS to participate in ‘supporting’ different processes linked to groundwater management (i.e. planning and generation of information; promotion of social participation; management coordination,

¹⁰⁹ In the Annex 1 of this document I included the constitutive act of the Laguna-Seca COTAS for the interested reader. It is standard constitutive act for a civil association and a fairly simple document, but it is telling of about the institutional design features of the COTAS. Interesting articles to read are: art 4 on the functions of the Laguna-Seca COTAS, provisos for the organisation of the Assembly of Water Users (Art 19 to 32) and for management of the organisation (Art 33 to 40).

consensus building/conflict resolution; finance and economic valuation; and monitoring and evaluation) the final result, after more than 15 years of existence, is that, as an institutional form, the COTAS have not managed to control groundwater over-exploitation and stabilise their pertaining aquifers –except in two very particular cases, the Santo Domingo and the Costa de Hermosillo COTAS. But how can they, if it is not in their power to do so? I will address this point in more detail later in this section. Still, the COTAS are valuable institutions in several dimensions, as I will also attempt to describe in this section and the following ones in this chapter.

If we look broadly at the COTAS achievements in terms of their institutional scope it is possible to make the following commentary.¹¹⁰ In terms of '*planning, studies and information generation*', the COTAS generally play some role in performing some activities. In matters concerning the production and socialisation of technical information, the COTAS frequently support the production of relevant technical hydro-geological studies about their aquifers that, in turn, support the development of the groundwater management plans. In practice what happens is that CONAGUA provides the COTAS with financial resources for them to outsource the technical studies and under its supervision. Still an advantage is that COTASs' Technical Management Teams usually has close relationships with some water users and so the information provided is generally more updated and possibly also more reliable.

The COTAS also participate during the production of the groundwater management plans, and their members provide relevant information and view points, albeit the comment made by some water users is that not always all of their concerns are reflected in such plans. This is hardly a form of decentralised decision-making, and the problem has some structural causes. It is also important to emphasise that notwithstanding the COTAS may participate in the production of a groundwater management plan for the aquifer, if this plan does not turn into an aquifers by-law, then the exercise is sterile, because no meaningful legally binding action may be taken, and specially the ones related to the reduction of groundwater abstraction volumes to water users. This important aspect will be addressed in more detail later in this section.

¹¹⁰ This doctoral research does not attempt to be a comparative work. Still it is possible to say that the COTAS in general share the same overall situation and manifest very similar drawbacks. This opinion is based on various informal interviews and meetings with senior level civil servants in charge of the institutional development of the CONAGUA, scholars that have researched the topic in-detail and also groundwater users from across the country.

The COTAS also support their membership in terms of the '*promotion, socialisation and social participation*'. They support the socialisation of relevant information about the national policy framework, groundwater management best practices, the main challenges faced by their aquifers, relevant government support available to groundwater users (e.g. programmes, initiatives, etc.), changes in administrative processes and legal frameworks, etc. This, in the opinion of groundwater users themselves, has a very positive impact in the community of groundwater users. One area where the COTAS usually also participate with more positive impacts is the production of awareness raising and water education campaigns. In this case, the COTAS also hire universities, research centres and consultants to design these campaigns, again ultimately financed by the CONAGUA.

An extremely important aspect to evaluate is how the COTAS promote and enable social participation. In my opinion the COTAS, in certain ways, do promote social participation/involvement, albeit in a fairly limited way. This limitation is product of CONAGUA's understanding about what social participation/involvement means and also the extremely centralised, bureaucratic and complex process related to the establishment of 'aquifers abstraction by-laws'. The 2004 NWL sustains that water users have the right to participate in the water resources management and planning process through different pathways and entry points, one of them being the COTAS. So an important contradiction rests in the State's understanding or definition of what social participation means. Notwithstanding the rhetoric and the effort in enabling the MSPs for groundwater management, COTAS, no social participation is meaningful if it is not really influential or determinant over the necessary decisions and processes that need to be taken to address a governing problem. Unfortunately, this is the case of the COTAS in terms of groundwater management. So, despite the COTAS may engage in a groundwater planning process, by producing relevant information, convening groundwater users to discuss problems, engage in the production of groundwater management plans –through a consensus building and democratic process–, etc., if they only remain consultative bodies, without strong executive powers they are destined to be weak institutions, and hence, their impact as a social participation mechanisms –and socio-political governance arrangement for that matter– is rather limited. On this Marañón and Lopez (2008) comment:

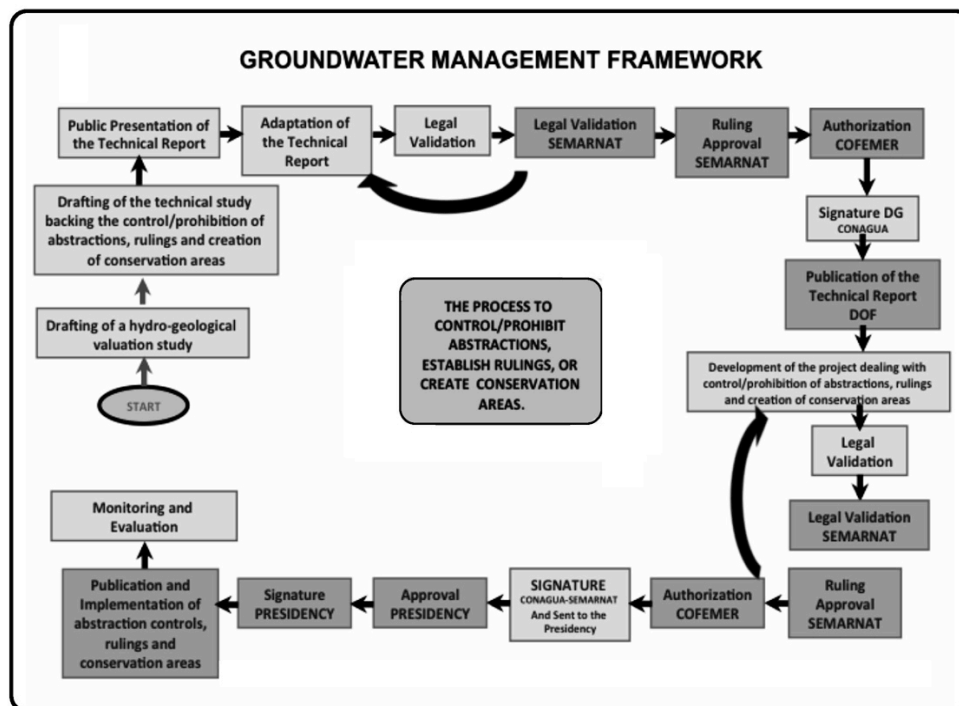
“The COTAS are carrying out an important activity in terms of groundwater management, notwithstanding they do not play a decisive role supporting the CONAGUA, specially in taking the control of the allocation of water concessions and the implementation of sanctions when confronted with irregularities. If the State wishes to strengthen them, it is necessary that this organisations command greater acknowledgment and recognition on behalf of the authorities and in order to increase their social recognition and acceptance from the water users. This requires changes in the conceptions regarding public policy and social participation. The first should be understood a ‘social space’ where State and civil society converge for decision-making. The second should be conceived as the ‘vector’ that conveys decision-making powers from the State’s realms to society, in such a way that citizens can take decisions over their own daily problems, in this case over matters concerning groundwater scarcity and the difficult challenges that have to be met to solve the problem in a co-responsible way and through co-governance with the authorities. “ (Marañón and Lopez 2008: 136. Translation: Mine).

There is also another important source of the COTAS weakness in terms of social participation and that has to do with the ‘due legal and political protocol’ behind the enactment of the aquifers’ abstraction by-laws. This process is extremely convoluted, bureaucratic and centralised and hinders directly, not only the capacity of the COTAS to be authentic institutions to enable social participation, but the actual groundwater management process. I will attempt to explain this situation in the next paragraphs.

After any COTAS has been promoted, established, the aquifer’s geo-hydrological studies developed, and the groundwater management plan produced –through consensus building–, then groundwater users arrive to the ‘start’ point of the due process to produce an aquifer’s by-laws –ultimately the instrument that establishes legal binding commitments in terms of groundwater management processes. Highlighting certain important aspects of this process, it is worth commenting that any aquifer’s abstraction by-laws has to go through several legal validations. The first legal validation has to be pronounced by the legal department of CONAGUA (a process that could take 9 months to a year). Then the document goes through a second validation in the legal department of SEMARNAT (again a process that goes back and forth until both parties are satisfied, and could take several months, maybe a year). Once both legal validations are pronounced, the document goes for a third legal validation and authorisation, this time at the Federal Commission of Regulatory Betterment (*Comisión Federal de Mejora Regulatoria, COFEMER*). The COFEMER is the institution in charge of supervising that all legal and regulatory instruments are ‘clear, simple, applicable, transparent and possible to enforce’ (the validation in COFEMER could take another 5 months, and if no new recommendations are of considerable importance to the process to begin all over again). Once the document

is back from the COMEFER, it needs to be signed by the General Director of the CONAGUA (a process that could take also a few months). After all of this, the by-laws goes to the Office of the Presidency, where its legal and political officers also review the legal document and assess the political implications of the by-laws (a process that could also take also several months). It is only after all these steps are taken that the President of Mexico signs the aquifer's by-laws, that are later published in the Official Diary of the Federation (Diario Oficial de Federacion), when finally they become an official and legally binding regulatory instruments.¹¹¹

Figure 17: Aquifers By-Laws Enactment Process



Source: Informal power point presentation, CONAGUA

Overall, and if everything goes well, a due process such as this could take three, to maybe five years. This situation frequently deters literally 'anyone' from initiating a by-laws enactment process. Information regarding how many aquifers by-laws have actually been produced is controversial, but it seems that only 5 or six aquifers by-laws have ever been published in the Official Diary of the Federation. With such a complex and long due legal process, the whole public participation exercise is in

¹¹¹ I am grateful to Dr Guillermo Chavez Guillen, Manager of Groundwater Management at the CONAGUA and Ms Lydia Mead, Deputy Manager for River Basin Councils and Auxiliary Bodies for explaining the due process for enacting aquifers by-laws.

reality a non-starter. In this case, Meuleman (2008) when reflecting on some important meta-governance strategies –in chapter 2–, he speaks about making sure to match socio-political governance strategies and instruments, with regulatory and hierarchical ones, as frequently there are important incompatibilities between them. This is the case for the MSPs for groundwater management, COTAS, in their institutional role to support the control of groundwater over-exploitation, and the due process or protocol for enacting any aquifer’s by-laws. There is a need to change –simplify and decentralise– the protocol in the production of aquifers abstraction by laws, if this instrument is to be effective and compatible with the role of the MSPs for groundwater management. What the present due process evidences is the extremely centralised control and decision making powers that go even to the President’s Office.¹¹²

In terms of *‘management, coordination and consensus-building/conflict resolution*, this dimension is probably where the COTAS ultimately have the smallest role and consequently the least impact, and this is where we also find some structural causes affecting their performance. Strictly speaking, the COTAS only play a very marginal role in groundwater management. It is important to clarify that the COTAS are not really autonomous, executive and financially sustainable institutions. This is to say they have no decision-making authority over the allocation and reduction of groundwater concessions, nor the implementation of groundwater management plans, nor the enactment of aquifers’ by-laws. The COTAS depend politically and financially –almost entirely– from the State –be it the central or local authority. As it stands, the COTAS remain weak and ‘peripheral’ consultative bodies with little margin of action over the groundwater management process. Wester, Sandoval and Hoogesteger (2010) concur with this opinion:

“Between 1995 and 2000, the CNA did not publish any policy document outlining the structure and tasks of the COTAS or how they should be formed. However it became clear that the CONAGUA only intended the COTAS to be consultative bodies, without any clear legal status or decision-making powers, in which aquifer users, government water agencies and organised groups from civil society would interact concerning groundwater management, under the auspices of the CONAGUA. It is the shared perception of the researchers and a former policy-maker that the CONAGUA was very reluctant to design aquifer management organisations with any real clout in groundwater management.” (Wester, Sandoval, and Hoogesteger, 2011:891)

¹¹² In the opinion of both Dr Judith Dominguez, former Manager of Water Policy and scholar at the Colegio de Mexico, the legal protocol to enact an aquifer’s by-law is probably one the most hindering factor in the pursuit of a more participatory sustainable groundwater resources management.

The COTAS also have very little capacity to enable greater stakeholder cooperation, because they are not executive bodies, and they are perceived as weak institutions by other State agencies and other stakeholders. Only some smaller efforts of stakeholder cooperation have been available to the COTAS, for example, through the interaction they have with other government institutions in order to gain access to small financial and technical support to implement certain initiatives. For example, frequently the COTAS work with the SAGARPA to harness financial resources for irrigation technology modernisation and agricultural conversion. Regarding to the development of infrastructure, their role in this dimension mostly focuses in the coordination of work related to rehabilitation of wells and the modernisation of pumping equipment, again most of the times financed by the CONAGUA or SAGARPA. So in a way they do support the concurrence of technical, financial and social resources to support the small actions related to infrastructure maintenance, and the like.

Regarding consensus building and conflict resolution the COTAS do recreate deliberative arenas that can help to air conflicts and attempt to generate consensus about groundwater management challenges, groundwater management objectives and more generally the groundwater management plans. Still despite their importance as socialisation mechanisms, these deliberative arenas are relatively weak, also for a number of structural reasons. The COTAS continue to have a limited capability to convene groundwater users to participate as active members of the institution –including their deliberative arenas–, as typically on average only 20% to 25% of the groundwater users of any respective aquifer is an active member of their respective COTAS, and so their social basis is extremely weak, and thus so their political legitimacy (Moreno, Marañón, Lopez, 2010; Wester, Sandoval, and Hoogesteger, 2011).¹¹³

This important problem is path-dependent on the way the CONAGUA usually establishes the COTAS, as they rush through the process without due care for promoting the idea and of being inclusive and broad in the convening process. There is also a problem of political representation, as some users feel completely unrepresented by their respective vocals in the Governing Board. This has also to do

¹¹³ This situation becomes evident every time one attends to any of the COTASs' deliberative arenas, as there is a reduced turn out on behalf of groundwater users. Also the case is that in most occasions the same people are the ones showing at these deliberative arenas. This is an important problem that affects the political legitimacy and the 'power of' the COTAS.

with the great diversity or heterogeneity of groundwater users in the country, a situation that complicates the legitimate representation of interests, the management of conflicts and the eventual, if not extraordinary, production of consensus in matters concerning groundwater management. There is also the problem of misrepresentation of interests, as at times people who only seek to favour their positions and that of their group-faction capture the positions of Water-user Vocals. The problem of lack of political representation is an important problem. On this Perez (2010) comments:

“Socio-economic differences, such as education, organizational capacity, economic capacity, amongst other, are mentioned by some authors as the main sources of inequality in political representation; while some water users are represented in the COTAS by the largest domestic and transnational companies, others are represented by the small holders. Hernandez de Alvarado also highlights these same problems, asserting that the main problem has its roots in the way CONAGUA convened the water users, whereby the representatives of the Ejidos were left out, and only prominent figures of the regional productive sectors were then selected for most of the COTASs’ Governing Boards, leaving the regional elite in charge.” (Jimenez, 2010:77)

In terms of the *‘finance and economic valuation’* dimension, the role of the COTAS is also fairly limited. Most of the COTAS depend on the financial support from the State to undertake their activities. In most of the cases the salary of their Technical Secretaries is paid by the State, a situation that also serves to exercise ‘power over’ them. In certain cases the COTAS find other sources of finance from social and environmental philanthropic organisations and non-governmental organisations. In most of the cases the COTAS once established they rapidly become associations of civil society, and once this legal status is achieved they can open trust-funds or ‘current accounts’ in commercial banks that allow them to receive financial resources in a transparent and official manner. In some cases the COTAS establish ‘annual contribution quotas’ and ‘service contribution quotas’ that they charge to their membership for administrative and technical services. Still in all of the cases the COTAS are not really self-sustaining institutions (Moreno, Marañon, Lopez, 2010; Wester, Sandoval, and Hoogesteger, 2011).¹¹⁴

¹¹⁴ In a focus group co-organised with the CONAGUA Office in the State of Guanajuato, the participants highlighted the financial dependency and financial constraints as the main problems of the COTAS. Unfortunately, groundwater users do not see any feasible alternatives for financial independence.

In matters concerning the *'accountability, monitoring and evaluation'* dimensions the COTAS do work to support the enforcement of the rule law, as their membership has the opportunity to monitor closely what is happening in the aquifers territory. They are also in a strong position to notice illegal well drilling and also any acts of corruption that they have to report to the relevant authority. This is yet another important structural limitation, as they do not have any powers to enforce the law nor to execute sanctions.

- *'Power' in the context of the MSPs for Groundwater Management: A Succinct Commentary*

In this section I will engage in a succinct description of how power relationships seem to play out in the context of the MSPs for groundwater management, COTAS, and using the characterisations presented in chapter-2: power in, power of, power over and countervailing power.¹¹⁵

'Power in' in the context of MSPs plays out in several dimensions or avenues. Amongst one of the most important dimensions is of course between the State and the Governing Board, the Technical Secretary and the Water User Vocals. Perhaps one of the most important moments when this power relationship plays out is during the definition of the groundwater management plan. Frequently, the case is that groundwater management plans are contracted out by the CONAGUA State Offices to consultancy services that have limited time and limited resources to deliver. They also seem to have limited knowledge about participatory process as they are mostly engineering firms. So they produce highly technical groundwater resources management plans that offer most of the time technical-rational solutions –like technological modernisation, agricultural conversion, water rights transfers, etc. Hence, the solutions do not really address the conflictive and complex issue of groundwater re-allocation and groundwater abstraction reductions. Then they later present their findings and strategies to the COTAS, of course eliciting strong negative responses, due to the lack of participation and the lack of commitment to address the real problems faced by the groundwater users. As the plans require the consensus to be implemented, then a consensus-building process usually starts and in order to modify the groundwater management plan. This form of resistance is an expression of countervailing power, as actually the COTAS is able to challenge the

¹¹⁵ The insights on the workings of power in the context of the MSPs for groundwater resources management derive from conversations with members of the COTAS, and by attending to the various deliberative arenas organised by the COTAS.

State in its intentions and proposals, and re-orient policy process through a different pathway.

Obviously, 'power in' the COTAS also plays out between water user members during the development of the groundwater plan, as different groundwater users have different concerns and interests. For example, industrial users usually consider that they are already taking measures to mitigate their impact over the aquifers –through technological means like water re-use and natural resources conservation measures oriented at protecting recharge areas. This happens a lot for example in places where important soft drinks and beer bottling companies operate, and so they are fast to point out that the main culprit of groundwater over-exploitation is agriculture, so they strongly voice their concerns for the need to reduce agricultural water use. The agricultural producers on the other hand obviously seek to protect their water concession volumes, and so a tense process of shaming and blaming starts –this happened a lot in Queretaro Valley Aquifer, the first COTAS that I first researched, as there is an important bottling company of the Coca-Cola Company. At that time the Coca-Cola Company was adamant in blaming agricultural producers of wasting valuable water, that could be used in higher value economic activities with greatest economic benefit for the whole of society.

Another important moment when 'power in' the context of MSPs plays out is during the definition of the COTAS yearly 'activity programme'. During this moment the Governing Boards of the COTAS negotiate with the CONAGUA State Offices what activities the COTAS will be doing with the budget provided by CONAGUA. As it is important for CONAGUA to maintain the 'notion' or 'perception' that they support the COTAS and that democratic decision making exists, frequently there is some leeway in the negotiations and the COTAS have some room of manoeuvring to define their yearly 'activity programme'. It is important to highlight the value of the COTAS deliberative arenas, as negotiations undertaken there with the presence of several COTAS members, and other stakeholders help to shape and tame the positions and attitude of State representatives, that are then somewhat obliged to concede to reasonable points under the pressure of needing to be open, transparent and supportive. So the contribution of the COTAS deliberative arenas to enabling countervailing power is critical. One last comment is necessary, of course the way 'power in' plays out is very much context specific, thus in this case what I am presenting are only general tendencies and observations that are circumscribed by

the limitations to the fieldwork I experienced and already explained in the introduction of this document.

'Power in' also plays out through the manifestation of the second dimension of power –the definition of the agenda. In the case of the COTAS this form of power is clearly established since the outset of the political process, as the COTAS are *ex-ante* –so to speak– limited in their scope, remaining consultative bodies, incapable of addressing the real groundwater management challenges. 'Power in' the COTAS also manifests through the strong influence that the CONAGUA has over the definition of the COTASs' work-plans (i.e. in the definition of their work agenda).¹¹⁶

'Power of' in the context of the MSPs for groundwater management is very much circumscribed by the 2004 NWL. Accordingly, the 2004 NWL clearly establishes that the COTAS are only 'consultative bodies', with no executive powers. The COTAS role is only that of being advisory entities that support the relevant authorities in the groundwater planning and management process. The 'power of' dimension is also circumscribed by the COTASs' financial dependence of CONAGUA, as they receive most of their budgets from it. This also serves to limit their room of manoeuvre. So the COTAS 'power of' is mostly oriented at the generation and socialisation of information, carrying out technical studies, capacity building workshops and awareness raising campaigns. In certain occasions the COTAS manage to find financial resources from other sources in order to undertake activities, but these have to comply with the rule of law, that limits the COTAS from exercising any form of authoritative act. The COTAS can also carry out important advisory activities in support of their membership and on a number of administrative process and red tape that are required to, for example, regularise water concessions, gain access to government support, pay fines, etc. So, albeit limited, this are some of the main dimensions of 'power of' available to the COTAS.

There is another important dimension of 'power of' that plays in favour of the COTAS, and this is manifested in the 'network power' that the COTAS –and mostly the Governing Board and the Technical Secretary– have. Most of the time the Governing Board and the Technical Secretary of a COTAS are well 'networked' individuals that have 'contacts' across different government agencies, a situation that

¹¹⁶ In the next section of this chapter we will look in more detail at the Laguna-Seca COTAS Annual Work Programme, and I will have an opportunity to comment on it more precisely. Still one thing is worth commenting now, it is clear that their agenda is very limited in its scope and in its potential impact to address the crucial drivers of groundwater over-exploitation.

helps them to gain relevant information in a timely manner. An example of this is when government agencies open up 'programme inscription windows' (*ventanas de inscripción a programas*). These windows open only for certain periods and give access to several government assistance programmes. The COTAS is a good position to acknowledge these opportunities and then mobilise groundwater users to benefit from these programmes.

On the issue of 'power over' the MSPs for groundwater management, it is clear that the State exerts this dimension of power through multiple pathways. The first one is, as already mentioned, through the definition of the COTAS's role in groundwater resources management, and clearly established in the 2004 NWL. The law clearly limits the role of the COTAS to that of being advisory bodies. The second very definitive pathway is through the financial dependence that the COTAS have to the CONAGUA. This situation clearly makes them susceptible to the definition of their role and their agenda. Another important dimension of 'power of' that is a little more subtle, but that is highly determinant in that it builds a strong path-dependency is through the way that the CONAGUA carries out the 'convening process', as these processes across the country have been generally rushed through without a careful and broad inclusion of stakeholders, a situation that affects their legitimacy, and also their power.

I will devote words to complete this dimension power in chapter-7 when I explain the State meta-governance strategies and capacities that the CONAGUA exercises over them.

6.3. The Experience of the COTAS in the State of Guanajuato: A Paradoxical and also Contradictory Experience

6.3.1 Institutional Development History: Some 'Critical Junctures'

Historical Institutionalism highlights the role of critical junctures in the process of institutional change and development; that is of the presence of historical events that because of the particular sequencing and timing they precipitate this change. This is the circumstance of the paradoxical case of the COTAS in the State of Guanajuato, where their establishment and institutional development process was initially supported in an 'extraordinary' way by the State Governor, the Secretary of Agriculture and Rural Development of the State of Guanajuato (*Secretaría de Agricultura y Desarrollo Rural SAYDR*) and then the State of Guanajuato Water

Commission (*Comisión Estatal de Agua de Guanajuato, CEAG*), and where, at least initially, the prospect of them actually addressing rampant groundwater over-exploitation through greater social participation and stakeholder cooperation seemed promising. In time the challenges have proven difficult to surmount and their contribution towards these ends have been more tamed.

The COTAS in the State of Guanajuato began to be established in 1997, a few years after they started to be established by the CONAGUA in other states of the country, and under the MASAS Programme supported by the World Bank. This process was driven by an important groundwater management crisis, product of a rapid expansion of irrigated agriculture that increased from 56,679 ha in 1966 to 367,000 ha in 2000, 76.6% of which are irrigated with groundwater (CEAG, 2006). The state has also experienced a rapid process of urbanisation and industrialisation, and important mid-size and emerging cities are located in the state, as well as important industrial parks (Wester, Sandoval, Hoogesteger, 2011).¹¹⁷ As a result, across the state, aquifers had been experiencing a lowering in their 'water tables' of approximately 2 meters per year, and sometimes declining at a rate of even to 3.5 meters near cities. This should not have stricken by surprise, as the number of wells had increased steadfastly from being approximately 650 in the 1950s to 17,000 in 2000 (Foster, Garduño, Kemper, 2004). The regions within the state that had been more severely affected were the central *el Bajío* region and the *Laguna-Seca* area. Consequently, groundwater over-exploitation became a water security concern, even more aggravated by the inter-state competition over surface water resources of the Lerma-Chapala River –also one of the most over-exploited rivers in the whole country (Marañón, 2010).

The establishment of the COTAS in the State of Guanajuato started in 1997 and was backed by the then State Governor, Mr Vicente Fox, who very much supported any decentralisation State-strategy under the framework of the 'New Federalism' discourse promoted by President Ernesto Zedillo's administration (1994-2000), and driven by the State's financial crisis and the continuation in the implementation of Neoliberalism in Mexico, and since the presidency of Miguel de la Madrid (1982-1988), as described in chapter 5 of this document. Vicente Fox –an active member of the opposing National Action Party (Partido Accion Nacional, PAN)– sought every opportunity to contest centralism and promote greater state-level sovereignty in

¹¹⁷ It is important to establish that agriculture represents 83% of groundwater abstractions in the state of Guanajuato, but it is also critically important for industrial and domestic use, as 99.3% of the water uses by such sectors depend on groundwater (CEAG, 2006).

public policy matters. Also, the State of Guanajuato is one of the driest states in the whole country and paradoxically also one of the largest agricultural producing states, and so for Governor Fox water security became a central concern of his administration, as well as an important 'ideological banner' that would help him build a larger political platform with presidential ambitions.

Table 3: Initial Phase of Institutionalisation of the Guanajuato COTAS		
COTAS	Establishment as MSPs	Establishment as associations of civil society
Celaya	1997	1999
León	1998	1999
Silao-Romita	1998	1999
Río Turbio	1998	1999
Irapuato-Valle Santiago	1998	1999
Salvatierra-La Cueva	1998	1999
Pénjamo-Abasolo	1998	1999
Acámbaro-Cuitzeo	1999	2000
Moroleón-Ciénaga Prieta	1999	2000
Río Laja	2000	2000
Jaral de Berrios	2000	2000
Ocampo	1999	2000
Xicahú	1999	2000
Laguna-Seca	1997	1999
Consejo Estatal Hidráulico	1999	2000
Note: Elaborated with information on the institutional history of the COTAS		

At the centre of his political project was also the enabling of greater social participation across all policy sectors, a strategy that had some other calculated motives. The first one being that this new push for social participation sought, more than anything else, to dismantle former clientelist networks built by the PRI during past administrations and build new ones under the control of the PAN.¹¹⁸ The second one, to begin to build a more robust precedent for his outspoken support for democratic practice and the need to further the democratisation of the political system, a discourse that years later helped him in his intention to contend for presidential elections in the context of an already weekend PRI –that had maintained one-party rule over 70 years. Some years later in 2000, Mr Vicente Fox won

¹¹⁸ In interviews with civil servants in the State of Guanajuato, they all concur that they had political pressures to re-shuffle the distribution of State resources in order to dismantle the old clientelist networks and build new ones under the control of the PAN.

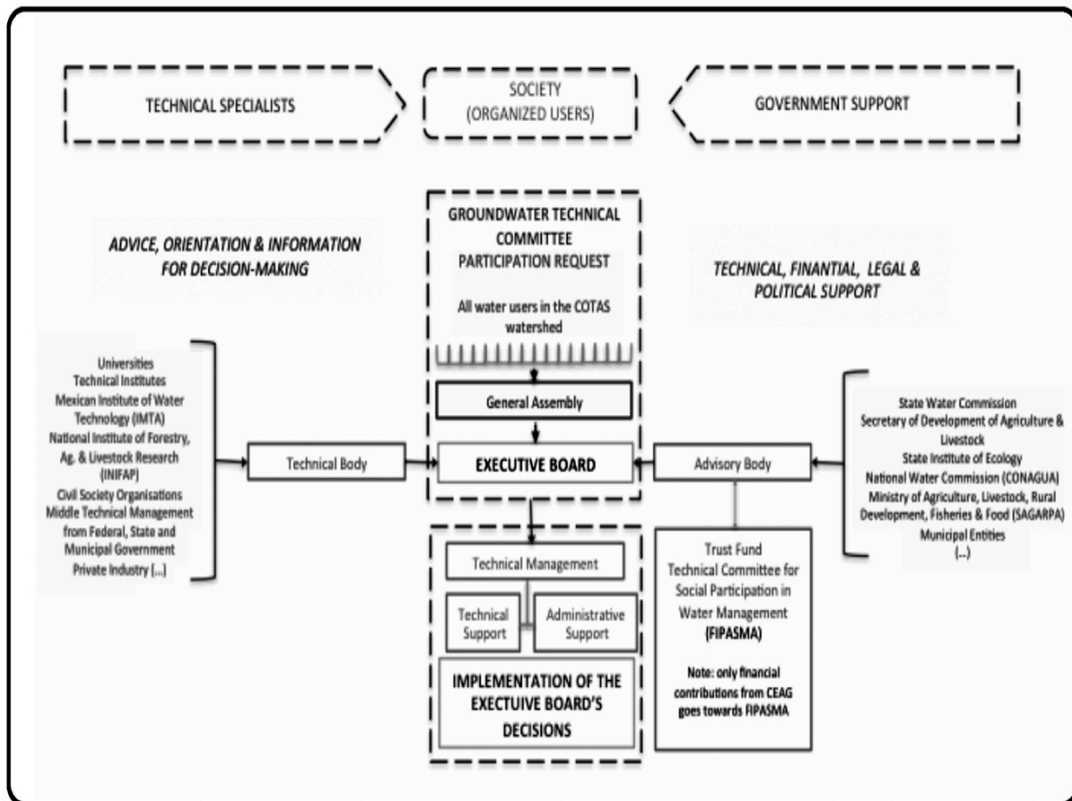
alongside the PAN the presidency, soon after declaring water a matter of 'national security'.¹¹⁹

The IMTA's team in the State of Guanajuato designed a different model of COTAS than the one being supported by the CONAGUA at that time, a situation that also created important tensions between CONAGUA and the State Governor. In the perspective of the SAYDR and the IMTA, the establishment of the COTAS needed to follow a 'bottom-up' approach, and the central idea was for these new institutions to really represent 'political spaces' where water users and government could gain a clearer understanding of the gravity of groundwater depletion and could collectively discuss and take decisions to address the challenges faced (i.e. to really become institutions with real decision making powers and capacity to implement corrective actions). In 1998, the responsibility of the COTAS in the State of Guanajuato was shifted to the CEAG. This move had some important implications in terms of the orientation and institutional design features of the COTAS, this time influenced by another group of seasoned civil servants at the CEAG. Wester, Sandoval and Hoogesteger (2011) explain the nature of these changes in the institutional scope and structure of the COTAS:

"The move to the CEAG led to several changes in the structure of the COTAS. The most salient differences were that the CEAG decided to form the Board of the COTAS with only water user representatives –and not civil servants. In the CEAG model, the membership of the COTAS was to consist of all the water users of an aquifer, defined as those extracting groundwater for agricultural, industrial or commercial use, while urban inhabitants would be represented through the municipal water supply companies. The CEAG was quite clear that the COTAS should be legally recognised organisations that would focus on regulating and conserving water. Most importantly, the COTAS were to reverse aquifer over-exploitation and recover groundwater levels by reaching agreements on aquifer management and agreeing actions to regulate, conserve and efficiently use water. To achieve these goals it was foreseen that the COTAS would: propose aquifer rules and regulations for the sustainable use of aquifers; propose a local water plan and participate in the formulation of the State Water Resources Plan, most relevantly participate in the granting of water concessions, and monitor the aquifer rules and regulations and the volumes of water extracted." (Wester, Sandoval and Hoogesteger, 2011: 892)

¹¹⁹ President Fox's interest in water resources management was behind the candidacy and successful bid of Mexico to organise the 4th World Water Forum in Mexico City in 2006.

Figure 18: The MSPs for Groundwater Management COTAS: Institutional Design



Source: Wester, Sandoval, and Hoogesteger, 2011

So there are number of important differences then between the CONAGUA's COTAS model and that of the initial CEAG's model and in terms of institutional scale, scope and structure. In term of institutional scale an important difference is that the CEAG's model made emphasis on 'conjunctive use' and IWRM; that is in attempting for the COTAS to have a greater saying in the definition of the State Water Resources Plan and, hence, in working towards establishing and managing the impacts of surface water resources management and groundwater management together in order to foster more stakeholder cooperation. In terms of institutional scope the conception was dramatically different, as the COTAS in the State of Guanajuato were not initially conceived as consultative bodies, but as actual executive bodies with autonomous decision-making powers in all matters pertaining to groundwater planning and management, and most relevantly in terms of granting concessions, and monitoring. The idea was also for the COTAS to gradually become financially autonomous. In term of institutional structure they had sought to have a greater presence of water users in the Governing Boards of the COTAS, and also to

have as their Technical Secretary not a civil servant from CONAGUA, but an actual technically qualified individual chosen by the water users, but totally independent from government. For the CEAG a critical step was for each COTAS to become a civil association.

The CEAG organised for the establishment and institutional development of the COTAS a strategy that followed the next stages: convening; legal constitution; development of the groundwater management plan; establishment of the aquifers by-laws; and organisational development. Starting in 1998, the aim was to finish the first two phases for 14 COTAS by year 2000, a rather ambitious target. According to policy makers involved in the process, the political pressure of finishing before the presidential elections at the end of 2000 really hampered the convening process, as it was not possible to construct an inclusive and broad social bases for the COTAS, a situation that created an important path-dependency. On this Wester, Sandoval and Hoogesteger (2011) explain:

“CEAG chose first to form the COTAS, and then to expand user participation. It is the authors’ shared perception that by neglecting to bring together the majority of the aquifers’ users at the start to arrive at a shared understanding of the problems faced by the aquifers and the possible solutions, CEAG failed to create a sense of ownership among water users that the COTAS was their organisation. Later on, this proved to be an obstacle for consolidation. The lack of adequate representation of the groundwater users in the COTAS made it difficult to reach consensus on reductions in groundwater extractions, and many users did not see the COTAS as a user organisation, but as an extension of the government.” (Wester, Sandoval and Hoogesteger, 2011: 893)

By late 1999, the whole of the state of Guanajuato was covered by a COTAS. From then, during the next Presidential term of Vicente Fox (2000 to 2006), the COTAS strongly depended on the CEAG financial support to cover for their operational and technical activities. During that period the state budget for the COTAS reached nearly US 10 million, divided in US 4 million for operation costs and the rest for technical studies –by all means an unprecedented account. The institutional development efforts concentrated in attempting to correct the lack of user involvement and formulating groundwater management models for each aquifer – that are the basis for planning and management. The strategy was that once with the models and information, groundwater users would approach the COTAS out of curiosity and interest. This strategy functioned and gradually the number of membership in the COTAS rose from only 255 water users in 2000 to 8, 610 (of an

estimated universe of 13,500 – 16,500 well owners)(CEAG, 2006). Simultaneously, the CEAG implemented a large information socialisation and capacity building campaign to train water users in different aspects related to IWRM and participatory groundwater management.

Still it is important to mention that the ambitious plans of turning the COTAS in to authentic MSPs with the capacity to decide over the allocation and size of groundwater abstractions had to be recast. One of the main reasons is that the state Governor and the CEAG were overtly optimistic of their capacity to fight the centralisation of State power, and gain control over the power to allocate, change and cancel groundwater concessions, a situation that simply did not materialise –centralisation is too embedded in the political system. In this case, the CONAGUA retained the sole federal power to manage the allocation of groundwater water concession titles. In the opinion of experts (Marñon, 2010) this struggle between two State power centres significantly reduced the prospects of the COTAS reaching their goals. It is worth highlighting now that this struggle for greater decentralisation evidences the importance that having the power to allocate water concession titles represents for political power, a power the central-State will not cede easily –another critical juncture that in this case played out against the institutional development of the COTAS in the State of Guanajuato.

Consequently, the institutional scope of the COTAS had to be severely tamed from being an executive entity to be more of a consensus-building, planning, information socialisation, awareness-raising and capacity-building one. At that point in time (approximately in 2006 and towards the end of President Fox's administration), and under the circumstances, an interesting strategic selectivity was considered to provide greater empowerment to the COTAS. This time in coordination with the CONAGUA, the CAEG pushed for the COTAS to have some form of delegated capacity to support their membership by providing different forms of administrative support and liaison services. From then on, the COTAS support groundwater users in their legal and administrative processes with CONAGUA, such as regularisations of concession titles, organisation of the necessary paperwork for groundwater users to gain access to federal and state level support programmes, etc. However, I would like to emphasize that the original idea for the COTAS did not consolidate and from that point in time their path of institutional development was severely limited, some say 'truncated'.

Table 4: Main Difference between the Conagua's and the Guanajuato COTAS Models	
Guanajuato COTAS (Technical Water Councils)	Conagua COTAS (Technical Groundwater Committees)
Conjunctive use and IWRM	Groundwater only
Strong civil society participation with State participation in the Consultative Group and to support technical input	Stronger State presence with the participation of civil society
Initially executive, autonomous and financially self-sustaining MSPs Later, same as CONAGUA's COTAS	Consultative entities with no executive powers
No authoritative acts	No authoritative acts
Technical Secretary appointed by the Decision of Board	Technical Secretary appointed by CONAGUA and most of the times a civil servant
Financial and administrative autonomy (trust-fund)	Financial and administrative dependency from CONAGUA
FIPASMA Trustfund to support the COTAS	no
State Water Council (second tier COTAS organisation)	no
Note: Elaborated with information on the COTAS.	

There are two other important differences that deserve attention. The CONAGUA's State Office in Guanajuato and the CEAG created the Social Participation for Water Resources Management Trustfund (*Fideicomiso para la participación social en el manejo del agua, FIPASMA*). The FIPASMA is a special purpose trustfund to support the institutional development of the COTAS. It was created in 2000 and on average it harnesses approximately US\$300,000 per/year that distributes across all the COTAS, and for them to carry out their Annual Work Programme. I will like to emphasise that an important pathway through which the 'power over' dimension materialises is through the signing of Agreements of Cooperation (AofC) between the CEAG and the COTAS in Guanajuato.¹²⁰ This document is a legally binding document that establishes the terms of a cooperative relationship between the CEAG

¹²⁰ Please see annex 2 in this document. In it I present the Agreement of Cooperation (AofC) between the CEAG and the Laguna-Seca COTAS. This AofC is a standard document that is entered into by the CEAG and all the COTAS. A careful reading of this document makes clear that this instrument is not a flexible agreement at all, allowing the COTAS to define its orientation and work programme. Actually it leaves very few spaces for the COTAS to take decisions and it narrows down their institutional scope. I invite the reader to take a look at it.

and all of the COTAS –independently. These AofCs establishes the responsibilities and rights acquired by the parties, the orientation and type of activities to be developed, and most importantly the amount of financial resources to be provided by the CEAG to the COTAS. In 2011 and 2012 for example each of the State of Guanajuato COTAS received approximately US\$50,000, which is truly not a big amount. The amount received is to be allocated to activities jointly defined by the CEAG and the COTAS, leaving really only little room for manoeuvring.

The second important element was the creation of the State level Water Resources Committee (Comite Estatal Hidráulico, CEH). The CEH functions as a second tier organisation that is comprised by all the COTAS and that provides greater exposure, political influence, and at times technical expertise to them. The CEH intervenes at a higher political level in support of the COTAS. It is the opinion of some groundwater users that the currently the CEH is not working well, actually that it has been ‘captured’ by interests that not necessarily attune with those of the COTAS. The CEH has become an entity that competes for financial resources to continue existing. No other state in the country has a second tier organisation in representation of their respective COTAS. An interesting fact is that recently in the 2011 Annual COTAS Meeting in the State of Guanajuato –that is organised on a yearly bases– the COTAS decided to embark in the creation of National Confederation of COTAS, again to make attempts to gain a higher level of exposure and political representation.

- *The State of Guanajuato MSPs for Groundwater Management, COTAS’ Efficiency, Effectiveness and Equity: Commentary on the Drawbacks and Contradictions*

The commentary regarding the drawbacks and contradictions of the State of Guanajuato MSPs for groundwater management, COTAS reflects the same orientation of the previous commentary regarding the CONAGUA’s COTAS, except that perhaps the contradictions are harsher. In this case and at a point in time, there was a real impetus to support the establishment of truly decentralised and participatory MSPs for groundwater management, that later was very much tamed by the power-struggle between two power centres within the State, the CONAGUA, representing the interests of a power bloc supporting centralisation and federalisation strategies, and the CEAG and the CONAGUA’s office in the State of Guanajuato, that sought more local control, greater social participation and democracy. Ultimately

the 'winner' was the central State, but at the loss of a more sustainable, participatory and democratic groundwater management model. Some counterfactual questions may be lightly asked, for example, what could have happened if the State of Guanajuato could have become a pilot region to really try out greater decentralisation and empowerment in groundwater management, and under the support and the 'vigilance' of the CONAGUA? Questions like this are really difficult to respond, but what is clear is that the CONAGUA was not really prepared to support this form of socio-political governance arrangements, despite the strong rhetoric, and despite the recognition that all the other State-strategies had utterly failed (are still failing). Some comments on the role of the State in this process are made in following chapter.

Generally speaking, efficiency and effectiveness are rather slim, as described in the section above. Except in two cases where groundwater demand is not considerable, no COTAS in the state of Guanajuato has achieved the stabilisation of its respective aquifer. Some minor and peripheral impacts regarding certain scope dimensions exist, like in the case of the other COTAS in the country. In the words of some of the COTASs' Technical Secretaries and the groundwater users in the state of Guanajuato, the consolidation of water concessions in the hands of the biggest agro-industries and large landholders continues. Every year more small landholders and *ejidatarios* leave their lands and transfer their water rights. Agricultural interests continue to over-exploit the aquifers, despite representing a grave water security risk, and under the aegis of the CONAGUA. I concur with Moreno, Marañón and Lopez (2010), the State plays a central role in supporting groundwater over-exploitation and undemocratic groundwater management processes. Consequently, the process of accumulation by dispossession thrives and the main drawback is in terms of social equity and environmental justice. I will now turn to deploy the fourth moment of analysis. A quick look at the over-draft rate of the aquifers in the State of Guanajuato is a telling experience.

Table 5: Overdraft Rate of the State of Guanajuato Aquifers		
	Availability Mm3	Recharge Mm3
1101 XICHU-ATARJEA	4.120181	40.3
1103 OCAMPO	4.575785	6.4
1104 LAGUNA-SECA	-26.056625	128.5
1106 DR. MORA-SAN JOSÉ ITURBIDE	-21.906922	38.4
1107 SAN MIGUEL DE ALLENDE	-8.469726	28.6
1108 CUENCA ALTA DEL RÍO LAJA	-60.238886	139.7
1110 SILAO-ROMITA	-120.200000	243.5
1111 LA MURALLA	-10.877058	34.8
1113 VALLE DE LEÓN	-177.673448	156.1
1114 RÍO TURBIO	-3.334583	110.0
1115 VALLE DE CELAYA	-132.875798	286.6
1116 VALLE DE LA CUEVITA	-4.246128	5.9
1117 VALLE DE ACÁMBARO	-47.200000	102.5
1118 SALVATIERRA-ACAMBARO	-41.589061	28.4
1119 IRAPUATO-VALLE	-162.527706	522.2
1120 PENJAMO-ABASOLO	-126.361646	225.0
1121 LAGO DE CUITZEO	-2.200000	7.1
1122 CIENEGA PRIETA-MOROLEON	-122.100000	85.0
Note: Extracted from: www.conagua.gob.mx/disponibilidad.aspx?n1=36&n3=94		

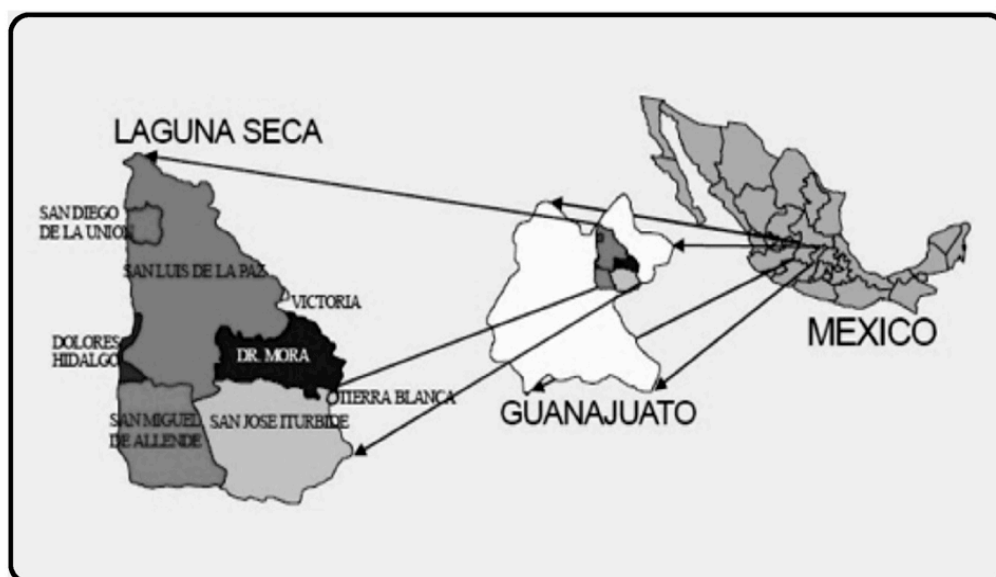
6.4. The Democratic Performance Assessment of the Laguna-Seca COTAS in the State of Guanajuato

6.4.1. The Laguna-Seca COTAS: Introduction and Some Basic Facts

The Laguna-Seca COTAS was the first of the 14 COTAS to be established in the State of Guanajuato in November 1997, and received the name of the watershed it covers, the Laguna-Seca Watershed, that also gives the name to the aquifer, the Laguna-Seca aquifer. It later became a registered civil association in December 1999. The geographical extension of the Laguna-Seca aquifer is of 1900 km² and spreads across 8 municipalities: San Diego de la Union, Dolores Hidalgo, San Miguel

de Allende, San Luis de la Paz, Victoria, Doctor Mora, Tierra Blanca, and San José Iturbide. The total population of the region is of 223,230 inhabitants, spreading across approximately 633 localities (CONAPO, 2010). This also corresponds to the Laguna-Seca COTAS scale.

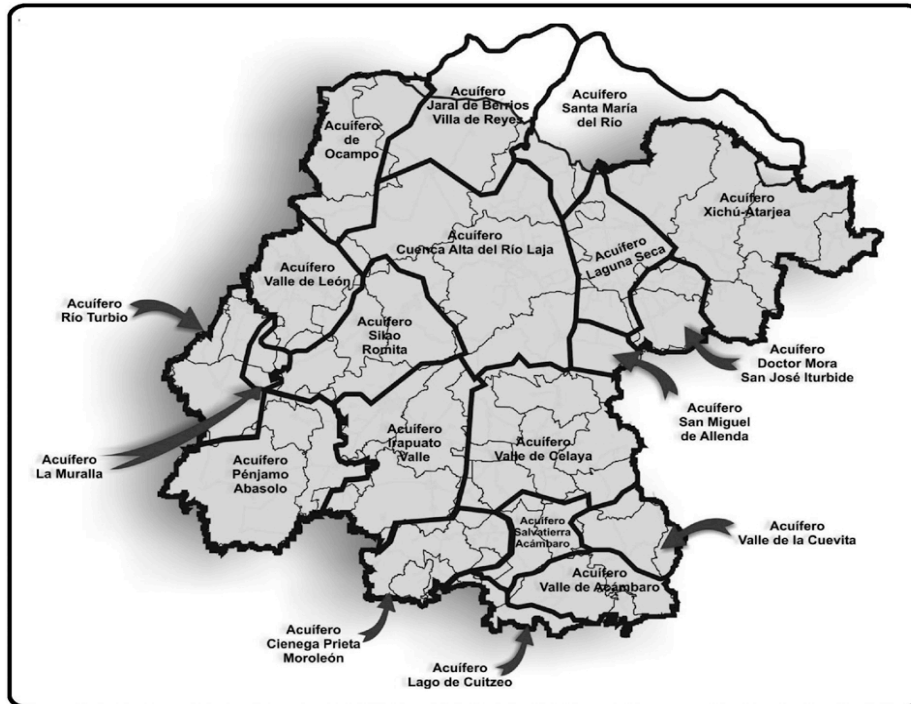
Figure 19: Laguna-Seca COTAS: Localisation



Source: Informal presentation Laguna-Seca COTAS, Technical Management Team

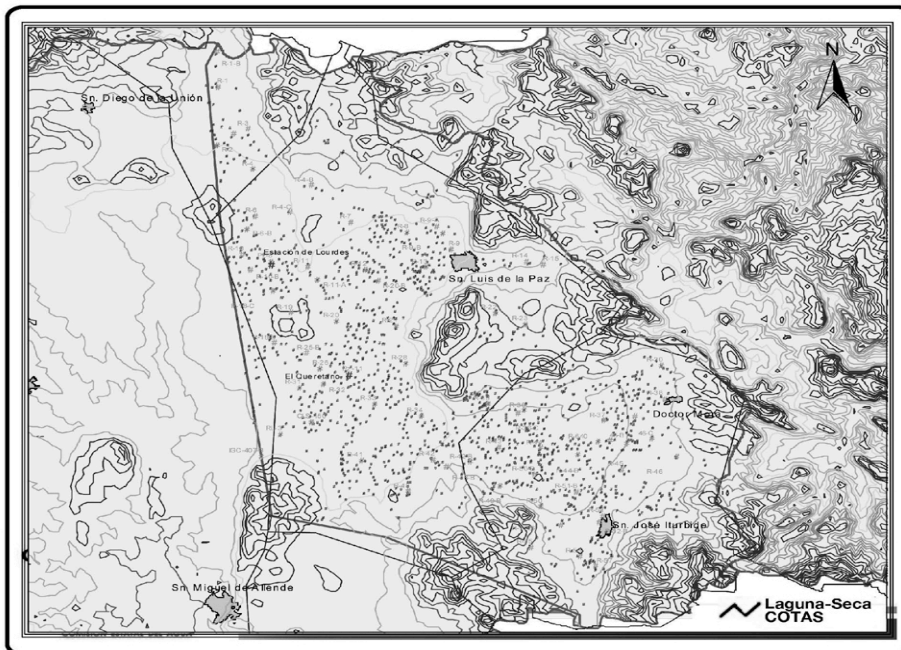
According to REPDA (2010), the present groundwater abstraction volume registered is of 139,503,232 m³/year, against the annual estimated recharge rate of 128,500,000 m³/year, producing an annual deficit of 11,003,232 m³/year. The average depth of the static water level has dropped steadily from 40.00 meters in 1970, to 109.00 meters in 2003 and to 260.00 in 2010 (Laguna-Seca COTAS, 2010). The primary groundwater uses of the Laguna-Seca aquifer are agriculture –by far–, than industry and then the services –hotels and resorts. There are 1205 active wells across the different municipalities, of which 863 correspond to agricultural water use, 216 for urban-public use, 117 for domestic use and 9 for industry. There are 31,670 ha of irrigated agriculture. The main produce is alfafa (6000 ha), followed by maiz (3000ha) and the broccoli (1800ha). Alfafa is a very water intensive produce. The Laguna-Seca Aquifer is under a strict ‘groundwater exploitation prohibition zones declaration’ status since the 1957, a legal-regulatory situation that has been reinforced and become stricter since then with subsequent declarations.

Figure 20: Aquifers in Guanajuato



Source: Informal presentation Laguna-Seca COTAS, Technical Management Team

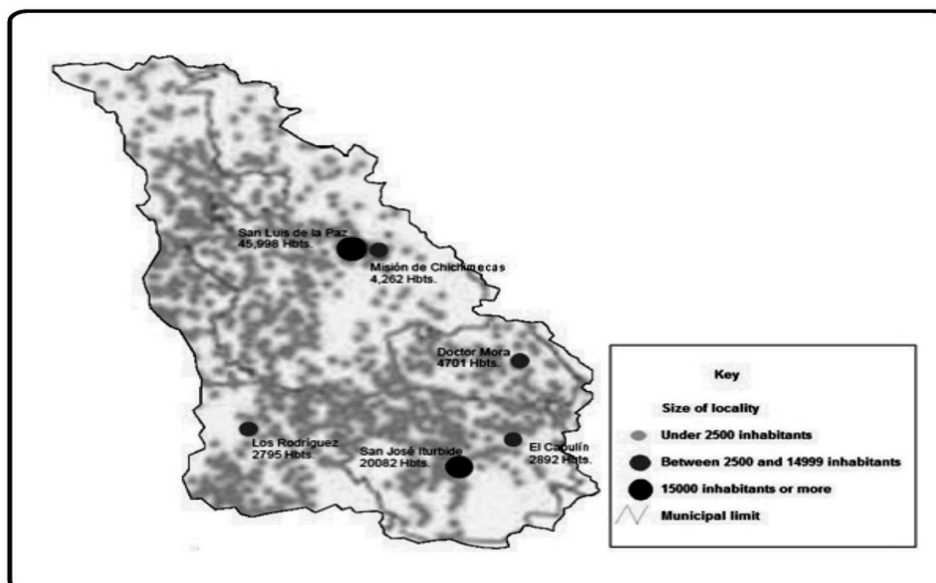
Figure 21: Laguna Seca COTAS: Wells/Abstractions Localisation



Source: Informal presentation Laguna-Seca COTAS, Technical Management Tea,

Being the first COTAS established in the State of Guanajuato, according to policy makers and researchers (Marañón and Lopez, 2010) due care was taken during the convening stage to socialise the idea of the COTAS amongst the greatest number of stakeholders and potential members, attempting to be inclusive of all the different water user groups. As it was the first COTAS to be established in the State of Guanajuato two factors affected stakeholder participation: on the one hand there was the usual stakeholder reluctance to participate in any government effort, but also there was ‘intrigue’ about the concept. Since its establishment the COTAS’s Governing Board selected a very active and competent Technical Secretary that has remain in her post since then. In the view of researchers and practitioners the Laguna-Seca COTAS is one of the most active in the region. It has produced a number of thorough and technical competent hydro-geological studies, two groundwater management plans, supports the groundwater users in all administrative and legal procedures, has managed to secure financial resources every year for its activities –mainly from CONAGUA, but also from private sources–, and most importantly, has managed to develop some form of countervailing power. This overall situation urged me to select it for the deployment of fourth moment of analysis. The next section of this chapter devotes efforts towards de democratic performance assessment of the Laguna-Seca COTAS, and by establishment its level of attainment of the potential democratic effects: developmental, public, and institutional effects.

Figure 22: Laguna-Seca COTAS: Wells and Urban Settlements



6.4.2. The Democratic Effects of the Laguna-Seca COTAS

- *Developmental Effects: Generation and Socialisation of Useful Information*

The Laguna-Seca COTAS plays an important role in the generation and socialisation of information through multiple pathways. It supports the CONAGUA's information socialisation efforts by distributing amongst its membership important information regarding relevant and current groundwater management laws and regulations –and their yearly modifications. CONAGUA has a limited capacity to socialise information across the countryside and to all groundwater users in the Laguna-Seca watershed area, who are highly dispersed in the territory and have little interaction with the State institutions. In this case, the Laguna-Seca COTAS is in a better position, not only to share information with its groundwater users, but also very importantly, to assist them in developing a good understanding of it. There are other important examples of this situation regarding important legal and policy information produced by other State institutions –at a federal and state-level.

The Laguna-Seca COTAS also assists the CONAGUA in the socialisation of current information regarding basic administrative procedures that groundwater users need to engage with regularly, such as the regularising of groundwater concessions; the payment of outstanding electricity bills and the procedures to enrol in the electricity subsidy programme for agriculturists –the tariff 09–; the procedures to transfer groundwater concessions; the expansion and rehabilitation of groundwater wells; and the procedures to benefit from the technical and financial support provided by federal and state-level agencies.¹²¹ Another important function of the Laguna-Seca COTAS regarding the socialisation of information is through helping to organise consultation processes regarding technical groundwater studies and management plans

¹²¹ It is important to mention that in the opinion of several groundwater users of the Laguna-Seca COTAS interviewed or with whom informal conversations were carried out –especially from the social-rural sector– most of the administrative and regulatory procedures concerning groundwater management and technical support programmes for groundwater users are extremely intricate and difficult to understand. This situation is considered by many groundwater users to be a deterrent to engage with the State institutions on these matters, losing the opportunity to be regularised, as well as to benefit from a number of State programmes. Perhaps it is worth highlighting that this situation is an important source of social inequality and so the presence of the Laguna-Seca COTAS is quite positive as it helps to reduce the negative impacts of this situation. As such, the Laguna-Seca COTAS's personnel have received capacity building on these legal and administrative matters and can support groundwater users with these procedures. Also, the Laguna-Seca COTAS's personnel have also developed networks in the public sector that support them to undertake this legal and administrative procedures on behalf of the groundwater users that are members of the Laguna-Seca COTAS, this is to say they have developed some form of network power.

developed by State institutions and other social actors. As such the Laguna-Seca COTAS has assisted in the socialisation of two different groundwater management plans, one produced in partnership between the COTAS and the IMTA (2004), the other one presently produced by the CONAGUA and the CEAG (2012); and a technical study by the CEAG and the World Bank (2009). The Laguna-Seca COTAS has played a central role in the socialisation of these documents amongst stakeholder, a process that, in turn, has triggered reactions on their behalf.

On the other hand, the Laguna-Seca COTAS is itself also an important provider of information for the State, as part of its mandate is to organise several information generation activities regarding the condition of the aquifer and the activities and perceptions of its users. On this matter, the Laguna-Seca COTAS for example generally participates in the development of well inventories (each year); the production and monitoring of piezometric information; and the development of climate information –produced through automatic climate stations that belong to the COTAS.¹²² Thirdly, and most importantly, the Laguna-Seca COTAS is also a useful provider of information on matters concerning the activities of groundwater users, for example the type of agriculture produce harvested by agriculturalists in the aquifer's area, the localisation and extension of agricultural plots; the different irrigation methods and practices implemented by agriculturalists, etc. This information is also extremely relevant for policy-making and without the intervention of the Laguna-Seca COTAS and the participation of groundwater users it would be extremely difficult and expensive to gather. It may be stated that this situation also contributes towards other democratic effects, which are the reduction of bounded rationality and the enablement of social learning, as well as effective problem solving.

The Laguna-Seca COTAS has developed very important and high standard technical documentation. As mentioned before, the Laguna-Seca COTAS produced in 2004, in partnership with the IMTA, a groundwater management plan, entitled "*Proposals for the Operation and Sustainable Management of the Laguna-Seca Aquifer, The Use of Water for Irrigation.*" This document is the most comprehensive and relevant study and plan developed so far for the aquifer. It offers in-depth technical information

¹²² It is recognised by the Laguna-Seca COTAS' members and also civil servants, that the Laguna-Seca COTAS' inventories are the most up-dated and complete. This information is extremely valuable for policy-making and regulatory purposes and it is difficult to see how the CONAGUA could actually manage to have produced it without the support from the COTAS, as it is not only an extremely labour intensive and time consuming process, but also because the information is difficult to gather, mainly because groundwater users are sometimes reluctant to hand it over to the authorities.

regarding the situation of the aquifer; the socio-economic characterisation of the users and economic activities of the region and their main trends; the impacts of these on the sustainable use of the aquifer, and through the use of sophisticated groundwater modelling techniques. Finally, it offers some robust strategies to address some of the main groundwater management challenges faced, focusing on irrigation modernisation and water demand management strategies.¹²³ This document also plays an important empowering role, as it has been used by the Laguna-Seca COTAS to contrast it with other government strategies and proposals for the management of the aquifer. So in a way it has provided also the Laguna-Seca COTAS with a tool that enables them to have some form of countervailing power, as they can contrast it against other visions regarding the nature and the characterisation of the groundwater challenges, and as such also assists in the production of the additional democratic effects of political equality and effective problem solving.

There is another relevant activity of the Laguna-Seca COTAS regarding the generation and socialisation of information that is somewhat contradictory, and on which the members of the Laguna-Seca COTAS and relevant authorities do not unanimously agree. The Laguna-Seca COTAS, at times, also informs the relevant local authorities about the illegal drilling of groundwater wells; the illegal transfer and fragmentation of groundwater concessions; the existence of illegal polluting activities, etc. This in reality is actually some form of policing activity, a situation that has generated some tensions between the Laguna-Seca COTAS and some groundwater users.¹²⁴

- *Developmental Effects: Limiting the Impact of Bounded Rationality and Enabling Social Learning Processes*

It is possible to say that by itself, the establishment of the Laguna-Seca COTAS supported the reduction of 'bounded rationality' and the enablement of social learning

¹²³ If the reader is interested, this document can be found at:

<http://chac.imta.mx/instituto/historial-proyectos/rd-muestras-2004.html>

¹²⁴ Several groundwater users vented during one of the deliberative arenas some form of frustration when referring to this situation, as frequently the case has been that the Laguna-Seca COTAS has denounced illegal activities to the relevant authorities –acting on behalf of the sustainability of the aquifer– and no action is later taken to address these situations. Another important aspect to consider regarding this denouncing activities is that the COTAS cannot 'blow the whistle' on every illegal situation they encounter, principally because it is not their current role to police nor to enforce the law, but also because if they turn into 'informers' they will lose the possibility of engaging later into more participatory and cooperative behaviour amongst groundwater users.

processes. The convening and establishment phases of the Laguna-Seca COTAS involved, as already mentioned, the mobilisation of groundwater users to discuss the common groundwater problems experienced by most of them; and also to reflect on the possible measures to address it –one of them being the establishment of a COTAS *per se*. This initial process entailed a number of meetings and activities that enabled raising the awareness amongst groundwater users about the seriousness of local groundwater over-exploitation problems and about the need to urgently address such problems.¹²⁵ It is worth stressing that this initial convening and establishment phases are extremely important, because through them stakeholders begin to create some form of shared and collective understanding on the many different pressing challenges and prospects faced by them to manage the aquifer in a more sustainable manner. This process also seems to be an initial contribution towards lessening the impact of bounded rationality.

Following these initial phases, and after the Governing Board of the Laguna-Seca COTAS was established, its members went through a thorough capacity-building process on several matters concerning groundwater regulation and groundwater management practices. They even went to the Edwards Aquifer in California to study the institutional set up. The idea behind these capacity-building efforts was to encourage Board members to gain access to best practices in order for them to later socialise them amongst their groundwater user groups, thus contributing again towards the reduction of bounded rationality.

Furthermore, the Laguna-Seca COTAS organises, in partnership with the Conagua and the CEAG, a reduced amount of capacity-building workshops on several themes, including for example: technical and legal aspects of groundwater management, such as groundwater user rights and obligations updating; and water productivity strategies in irrigation and agricultural reconversion. It is important to mention that during these capacity-building workshops there is also the opportunity for stakeholders to share their own experience and concerns about different matters concerning water productivity practices and other technical aspects of groundwater

¹²⁵ The process of initial configuration of the Laguna-Seca COTAS entailed a number of multi-stakeholder meetings. This process had a positive impact over the enablement of social participation in the social learning process. In other cases this initial convening and establishment phases were more hurried, having a negative effect on extent on the achievement of this and other potential democratic effects. In the case of the Laguna-Seca COTAS these phases took almost nine months

management, thus generating a richer social learning experience.¹²⁶ This capacity-building effort undertaken by the Laguna-Seca COTAS in partnership with government is negotiated and carried out on a yearly bases, as it is mostly financed by the CONAGUA state office in Guanajuato.

In interviews with the Laguna-Seca Technical Team and also some of its members the opinion is that the process of social learning amongst stakeholders has also generated some form of collective identity and common purpose, amongst membership. This situation, generally speaking, has also played some role in the institutional development of the Laguna-Seca COTAS. This also happens through the different capacity-building workshops and meetings, through which a sense of collective identity has gradually conformed; as well as through the other activities carried out by the Laguna-Seca COTAS. Still, when the Team and water users expressed their opinion it was tainted with concern, as they are aware that whether these collective identity and sense of common purpose solidifies is critically dependent on a number of factors such as the level of participation and inclusion of stakeholders; the quality of the public sphere they are capable of generating; the level of effectiveness of the Laguna-Seca COTAS, amongst other factors. Finally, the reduction of bounded rationality and the enablement of social learning processes directly contribute to the potential democratic effect of effective problem solving.

- *Developmental Effects: Development of Critical/Citizen Skills and Political Education*

The Laguna-Seca COTAS is a space for the socialisation amongst participant members of issues and concerns regarding groundwater management challenges. Indeed, part of the central activities of the Laguna-Seca COTAS is to organise several activities that create enabling environments for the development of critical/citizen skills and political education. For example, and as already mentioned, the Laguna-Seca COTAS organises a number of capacity-building workshops on several important themes. During such workshops the individuals learn about a number of important issues concerning groundwater management, something that

¹²⁶ When interviewing groundwater users, most of them concur that the capacity-building workshops have been extremely useful and satisfactory. Most of them will welcome the possibility of taking more workshops on a regular basis and of topics not only related with groundwater management issues, but also in terms of technological innovation and agricultural commercialisation strategies. Also in interviews with the Technical Management Team, they are willing to organise more workshops, but the main barrier for this activity is the lack of financial resources and government support.

has a direct contribution towards the goal of political education. These workshops also represent an opportunity for groundwater users to develop important critical skills, by sharing amongst themselves their knowledge and experience. This situation also represents an important opportunity for the Laguna-Seca COTAS' members to develop a greater awareness not only about their situation as groundwater users, but also about the situations that others are experiencing. This valuable experience seems to have supported developing some sense of collective identity and perhaps some sense of collective responsibility amongst participants, as already mentioned.¹²⁷

It is important to highlight, that it is not that the Laguna-Seca COTAS members do not already know about their situation, when it is quite clear for them that day to day groundwater tables are found at lower levels, and therefore water has to be pumped for longer periods, a problem that not only implies an increase in electricity costs, but that the quality groundwater is also deteriorating.¹²⁸ This critical situation affects agricultural producers and is putting at risk the viability of their livelihoods. So, it can be considered that, by participating in the Laguna-Seca COTAS and sharing and hearing their own different experiences amongst themselves a more comprehensive understanding is developed, not only about the urgency and the extent of the situation, but also about the need to exercise pressure over the authorities to make greater attempts to address the problem unwaveringly.

As previously stated, one of the main functions of the Laguna-Seca COTAS has been to organise a series of sequential meetings to engage in an open dialogue

¹²⁷ It was possible to establish through interviews and 'coffee-brake' conversations with the groundwater users that they all share grave concerns about groundwater over-exploitation, the weak position of the Laguna-Seca COTAS, the lack of financial support for its activities, the level of corruption perceived in State institutions, amongst other topics. So in this sense, it is possible to state that there is a collective identity as members of the Laguna-Seca COTAS and a more or less unified view about the problem. Regarding a sense of collective responsibility, this assessment is more difficult to make. During conversations, some people show genuine attitudes of commitment towards finding ways to address groundwater over-exploitation, still the only way to really find out if this is actually true can only be seen when the time comes for each user to reduce the amount of water used and abide to the aquifers' by-Laws. In my opinion an important barrier to increase this potential democratic effect is the limited number of participation in the COTAS.

¹²⁸ This situation affects social groups in a differential manner. That groundwater tables are being lowered steadfastly implies that only the producers with financial capacities to pay for electricity bills, groundwater pumping equipment and also to increase the depth of their wells are the only ones that stand a chance to keep producing and maintain their rural livelihoods. For the rest, it is simply too costly. This situation for the young people implies migration to other places to find jobs elsewhere, and for the elder this actually renders them extremely vulnerable, because migrating is not really an alternative for them.

regarding the groundwater management plan for the aquifer. Accordingly, participants in those meetings enter into a social dynamic where complex information is presented and debated amongst themselves and with the authorities, most of the time in an orderly fashion. Individuals participating in these deliberative arenas engage in the presentation and public deliberation of ideas. Such meetings need to conform to some general rules of social interaction and public deliberation, established by a facilitator or moderator –most of the times. These public deliberation ‘rules’ are generally in line with urging participants to respect each other; to wait for turns for having a chance to speak and avoid interrupting other speakers; to avoid monopolising the conversation, to express ideas concretely and avoid rambling, etc. In the case of the Laguna-Seca during all the meeting that I have attended the Technical Secretary of the President have spelled out the rules of engagement or interaction. This situation again contributes towards the generation of citizen skills.

In the meetings attended so far, it was possible to observe that there are cases where individuals have either ‘natural’ skills for presenting arguments or have developed such skills through practice (i.e. through their participation in other public deliberation processes).¹²⁹ In any case, individuals participating in such meetings are socialised into the dynamic of a deliberative arena, where they are enticed to present ideas and problems clearly and succinctly, engage in deliberation process with the rest of the participants and arrive at some form of negotiated output through consensus-building or voting. It is important to mention that most of the groundwater users interviewed that have participated in either workshops or meetings find that they have learned about the dynamics of public deliberation and that they feel more confident to engage in this type of processes.¹³⁰ This could be a very important developmental outcome,

¹²⁹ Perhaps an interesting observation to make is the following. During the participation in workshops and meetings it is possible to identify individuals with great eloquence, and so they manage to communicate messages to the audience in a clear and even impressive manner. In some occasions this has nothing to do with scholarly education. Still when exploring the matter further, it is possible to find that most of these individuals generally already have participated and frequently attend various other deliberative arenas, concerning other matters, for example agricultural committees, producer organisations, stock-breeding organisations, community committees, etc. This situation seems to corroborate Warren’s (2001), assumptions that the richer the associative activity of an individual the stronger the developmental effects.

¹³⁰ It is pertinent to mention that the COTAS is not the only venue –the only association– where groundwater users participate, there are other venues such as agricultural production and stock-breeding associations –organised mainly by the SAGARPA and other government institutions– and where groundwater users gain knowledge about their situation, where they can practice their citizen skills and be involved in associative activity and public deliberation processes that contribute to their political education. Indeed associative democrats, like Warren, consider that the richer the associative terrain and associational ecology of a particular society, the stronger the democratic effects. On this please see Mark

especially if the Laguna-Seca COTAS becomes a stronger institution, increases its activities and interaction, and exercises greater influence throughout the groundwater management process.

It seems possible to say that groundwater users participating in the Laguna-Seca COTAS activities –mainly in the deliberative arenas– have developed an understanding or appreciation that it is only through collective action or cooperation how they will be able to address the urgent groundwater overexploitation problems they face.¹³¹ It is possible to say also that perhaps amongst the core groups in the COTAS –that is the Technical Management and the Governing Board –a sense of solidarity has developed, manifested through their constant support to the activities and positioning of the Laguna-Seca COTAS.¹³² Indeed the Laguna-Seca COTAS Technical Management Team is always carrying out outreach activities, enticing groundwater users to become members of the COTAS and also to continue participating in all the meetings and activities. As such the COTAS can be considered to be fostering the development of a more responsible, informed and proactive citizenship.

- *Public Sphere Effect: Creation of Deliberative Arenas and Enablement of Public Deliberation / Public Justification and Transparency and Accountability through Public Scrutiny*

The Laguna-Seca COTAS has created some form of deliberative arenas around issues concerning the sustainable and equitable management of the aquifer. Indeed part of the main objectives of the Laguna-Seca COTAS has been to attempt to enable a broad, inclusive and open public discussion on the most pressing problems faced by groundwater users and also on the potential measures to address such problems. So, in principle, the Laguna-Seca COTAS has enabled the development of

E. Warren, *Democracy and Association* (New Jersey: Princeton University Press, 2001), pp. 206-216.

¹³¹ In the interviews made to groundwater users that have regularly participated in the Laguna-Seca COTAS' deliberative arenas, the general appreciation is that they do have developed a greater understanding that the problems they are facing can only be solved through cooperation.

¹³² On this it seems relevant to comment that the members of the Governing Board –the President, the Treasurer and the Secretary – as well as the Vocals, these roles are completely honorary, that is to say individuals do not receive any salary for the activities. Furthermore, it should be considered also that these individuals at times devote a significant amount of time to the further the objectives of the Laguna-Seca COTAS, they pay their own transportation costs for meetings, and sometimes even disburse from their personal financial resources to support certain logistical activities, such as coffee breaks, lunches, petrol, etc.

the public sphere through a number of ways. Initially, the Laguna-Seca COTAS supported the generation and socialisation of relevant information regarding the situation of the aquifer in a deliberative arena. Accordingly, it is through this socialisation process how individual and public opinion was mobilised, and issues and concerns were debated. Afterwards, during the organisation of other deliberative arenas a range of issues have been discussed openly between stakeholders, and including the participation of State representatives.

A very important moment of the public sphere enabled by the Laguna-Seca COTAS is during the discussion on the orientation and content of the groundwater management plan. This is an interesting moment where a form of communicative rationality is enabled. Here it is very important to mention again the critical role of the mediator or facilitator of the public deliberation process and the methodology used to organise the process of public deliberation. Accordingly, the role of the mediator has been critical for the generation of a vibrant and purposeful public sphere, centred in the public deliberation of the groundwater management plan. As such the moderator has been responsible for establishing some rules of engagement during the process of public deliberation. Commenting on the moderator's role I also want to say the he/she is responsible for allowing all voices to be heard and to exercise neutrality and good judgement in support for a democratic public sphere.¹³³ This situation is not straightforward, and requires knowledge and experience regarding to mediation and consensus-building techniques.¹³⁴

Another important public sphere effect generated by the Laguna-Seca COTAS is the support of transparency in decision-making processes both through the exercise of public justification and also of public scrutiny. At a general level of argumentation,

¹³³ During this PhD research investigation it was possible to be present in a number of groundwater management plan-making meetings and to witness the role of the facilitator, specially the case of the Queretaro Valley Aquifer. It is possible to say that the moderator was a highly qualified individual in the application of the ZZOP methodology and also in alternative conflict resolution, so the meetings were carried out in an orderly and purposeful manner. In the case of the COTAS-Laguna-Seca the moderators have been its President and its Technical Manager. Both individuals have plenty of experience in conducting meetings purposefully and with the presence of different stakeholders.

¹³⁴ It is important to refer also to another extremely relevant factor influencing the production of the COTAS' public sphere during the process of discussion of the groundwater management plan, the use of a robust analysis and decision-making methodology. In certain cases, the COTAS have used the ZZOP methodology –the German result-oriented project planning methodology. This methodology is divided in four main stages that allows for the orderly identification and characterisation of stakeholders, the identification of problems, the development of objectives, the development and presentation of alternatives/measures, the creation of work-plans and the follow-up and evaluation of actions. For further information on the application of the ZZOP methodology in the context of the COTAS please see the following webpage: <https://www.u-cursos.cl/fau/2010/2/DIH-506/1/material.../455603>

during the groundwater management plan-making process, and other technical meetings, all the stakeholders –including government officials and groundwater users– needed to present their arguments publicly, that is to say, they had to engage in a process of public justification of their ideas and positions. Consequently, the deliberative arenas have developed a chance then for the presentation of arguments and for the presentation of counter-argumentation also, a situation that has allowed for the possibility to arrive at more consensus-driven decisions on the groundwater management plan. This exercise of public scrutiny has been extremely relevant in two important ways. The first one, the public sphere seems to have produced the transformation of interests/perspectives, or at least maybe the taming of such. Secondly, the public sphere has also empowered the Laguna-Seca COTAS in a somehow natural way. For example, recently it was possible to attend to the presentation of a new groundwater management plan for the Laguna-Seca aquifer (i.e. the Operative Programme for the Sustainable Management of Water Resources, POMSA-Laguna-Seca COTAS). Unfortunately, this POMSA was not produced through a bottom-up approach and without any thorough consultation with the Laguna-Seca COTAS's Governing Board, much less with the groundwater users, a situation that has created an extreme discontent amongst them. In this meeting the members of the COTAS had the opportunity to discuss the content, the orientation and the methodology used to produce the Laguna-Seca POMSA. It became totally clear for the government officials present at the meeting and for the groundwater users also that the groundwater management plan would not be accepted in its present form.¹³⁵ This situation generated an important form of countervailing power, and now the Laguna-Seca COTAS has been entrusted with the organisation of wider consultation process to amend the POMSA together and with the participation of stakeholders.

The pursuit of greater accountability in decision-making processes in terms of the government's and groundwater users' actions is achieved by the generation of the COTAS public sphere. During the process of public deliberation on matters concerning the management of the aquifer, government officials have been

¹³⁵ The decision taken by government authorities during this meeting is for the Laguna-Seca COTAS to review the groundwater management plans. Presently, this situation still is under negotiation and there are two possibilities. The first option is for government to condition the allocation of financial resources to the elaboration of a reviewed document by the COTAS to be delivered in December. The other possibility is that part of the budget to be allocated for 2013 will be channelled to a broader consultation, revision activities and the consensus-building process. It is possible to consider that this decision is extremely important, as the POMSAS will determine the strategies to be followed by the COTAS in the mid-term.

confronted with tough questions and opinions regarding issues related to government action. Again using the example of the POMSAs, groundwater users have blatantly manifested to be against the content and the orientation of this Programme, threatening public officials to disavow it, if made official by the CONAGUA. They have also severely questioned the credentials of the consultancy company working in the elaboration of the POMSAS, as it is mostly a strategic management consultancy firm, and does not hold the necessary political, socio-economic and technical qualifications to work on the complex issues surrounding groundwater management.

A very important aspect that several members of the Laguna-Seca COTAS –and also of other COTAS– have highlighted during interviews is that groundwater users need to perceive the deliberative arenas useful to advance their individual and the collective interests. They need it to find it worthwhile to participate in them in order to be enticed to attend, after it takes time and effort to get there. They either need to consider that they are learning something new, that they are influencing decision-making process or at least that their opinions are being heard, etc. It is relevant to mention, that in this sense, the public sphere created by the Laguna-Seca COTAS is still fragile, because people will begin to abandon it if no clear outputs are achieved to further support groundwater users to solve their immediate problems and also the long-term sustainability of the aquifer. Also the Technical Management Team made emphasis on the need to identify ‘positive people’ and ‘allies’ in order to be able to create a productive and purposeful public sphere, as the presence of ‘negative’ people derails productive public deliberation processes. One last important consideration, regarding this matter, is that, when convened, the presence of government stakeholder is paramount to legitimise and actually empower the public spheres. The above concerns have urged the Laguna-Seca COTAS’ Technical Team for a careful planning in the scheduling of the deliberative arenas.

- *Institutional Effects: Keener Political Representation and Greater Political Equality*

It is possible to say that the Laguna-Seca COTAS supports the pursuit of a keener political representation aimed at achieving greater political equality. This potential democratic effect has been pursued again through a number of pathways. First, it is possible to maintain that the Laguna-Seca COTAS is indeed an official and legitimate political representation channel through which groundwater users can voice their ideas, proposals and discontent in attempt to obtain responses from the competent

government authorities. Secondly, a very important manner in which the Laguna-Seca COTAS has provided keener political representation and the pursuit of political equality is through facilitating groundwater users to have access to different types of State's programmes. On this, as it has been commented before, it is important to emphasise that the way in which this programme's operation rules are designed, actually creates important barriers for certain social sectors to gain access to them – especially the small landholder and the small-scale *ejidatarios*.¹³⁶ Furthermore, the lack of access to State resources worsens by the presence of corporatist and clientelist relationships, whereby a great proportion of the allocation of government funding goes through organised channels interest representation, diminishing the opportunity for these small landholders and *ejidatarios* to have access to much needed financial and technical support. Thirdly, another important aspect related to the pursuit of a keener political representation and greater political equality is that the Laguna-Seca COTAS has also helped groundwater users to benefit from a diversity of private and international technical and financial support. A clear example of this is the relationship that the Laguna-Seca COTAS has established with private foundations that support some of its activities, like Fundación Guanajuato with whom a capacity-building project on sustainable irrigation technologies was launched in 2008.

Through interviews with Laguna-Seca COTAS's Technical Management Team and also with groundwater users a recurrent theme is the presence of corruption. It is important to be careful regarding this situation, and no evidence has been shown to corroborate allegations, but the general commentary and social perception is that corruption is pervasive, and that groundwater users encounter it almost at all contact points with the State institutions. Corruption also affects political equality, because groundwater users with financial resources or political connections receive preferential treatment, solving issues rapidly and also gaining access to government support. As such the Laguna-Seca COTAS has provided a strong and legitimate

¹³⁶ As already mentioned the paperwork and due process required to receive government support is rather complex, and so certain social sectors are deterred from engaging. Also it is important to mention that besides this problem, the operation rules of some of the programmes require of financial counterparts on behalf of the groundwater users, and that are way above the possibilities of many of them. This situation acts as yet another important source of social inequality, as the government support goes then to social actors that are already well off; leaving the most marginalised outside their scope of aid. Through the Laguna-Seca COTAS it has been possible to voice these concerns in an attempt to modify some of these programmes operation rules.

political representation that protects groundwater users from being caught in a web of corruption and at the same time attempts to facilitate the expediency of all forms administrative procedures. On this, for example the Laguna-Seca COTAS provides a keener political representation by helping groundwater users to engage in different forms of legal and administrative paperwork. In this sense, the Technical Management Team at times is able to pool a number of groundwater users to help them engage in these enduring and complex processes. So, the Technical Manager will then help such groundwater users to fill paperwork, assemble all the necessary documentation and present the information at the relevant government offices and, most importantly, at the right time. It is frequently the case that the COTAS is able to provide this service to groundwater users in a cost-effective and timely way.¹³⁷

The Laguna-Seca COTAS' Governing Body and its Technical Team also participate in other important venues of associative activity pertaining to the water sector and to other policy sectors. In the case of the Laguna-Seca COTAS, the President and the Technical Manager participate in SAGRAPA's Sustainable Rural Development Council and the CONABIO's Biosphere Reserve Councils. This political representation is important, because it has opened spaces in different networks of contacts and has created important possibilities for technical and financial support.¹³⁸ It is also represented at the State Water Council (*Consejo Estatal Hidráulico*) and lastly, the Laguna-Seca COTAS also assists groundwater users to engage with the Federal Commission of Electricity (*Comisión Federal de Electricidad, CFE*), and to gain access to very important electricity subsidies for groundwater pumping.¹³⁹

Each year the Laguna-Seca COTAS enters into an AofC with the CEAG. Through this agreement of cooperation the COTAS receives financial support to carry out a Annual Work Programme, and that generally includes the updating of the groundwater well inventory, capacity-building workshop and other public communication activities. It is important to mention that through this agreement of

¹³⁷ On this a small detail to add is that at times the Laguna-Seca COTAS Technical Team charges a small cost-recovery and symbolic fee to undertake these assistance services. These quotas are only voluntary.

¹³⁸ It is not the case of the Laguna-Seca COTAS, but in some other COTAS, their representatives are also present in at the CONAFOR reforestation meetings. This experience is also interesting, because through the intermediation of the COTAS with CONAFOR, agriculturalist can actually gain access into the payment for environmental services (reforestation) schemes, receiving significant compensation for reforestation practices in their territories.

¹³⁹ It is important to comment that this subsidy has been extremely criticised for being one of the main factors behind groundwater exploitation. Please see Forcada, Sangines y Piña (2008) and Guerrero, Yañez, and Medellín (2008).

cooperation the Technical Management Team is also paid and the office costs of the Laguna-Seca COTAS are covered.¹⁴⁰

- *Institutional Effect: Greater Transparency and Accountability*

Initially, it is possible to say that the Laguna-Seca COTAS supports the realisation of the democratic effect of greater transparency and accountability by way of contributing to other democratic effects, such as the generation and socialisation of information and the public sphere effects, that in turn, have an impact on the pursuit of greater transparency and accountability. Therefore, the achievement of the democratic effect of greater transparency and accountability through the generation and socialisation of information is most clearly seen for example in the production and socialisation of information that demands governmental response and attention. For example, regarding the last aquifer's well inventory and technical studies, dangerous pollution sources that put at risk the integrity of the aquifer and the health of groundwater users were identified, putting this problem at the centre of public sphere and therefore, demanding a government response. Other important aspect of this situation has to do with groundwater user right transfers, whereby individuals are required to register this situation and follow due paperwork, in this sense the COTAS has enough leverage to request government information regarding this transfers, to later share it with their membership.¹⁴¹ Indeed supporting groundwater users to legitimately access information regarding these situations and others –such as sources of programmatic funding– supports in this case the pursuit of greater transparency and accountability; and specially in the case of a country such as Mexico, where generally speaking, access to strategic information –that is information that is useful for decision-making– is simply something that is difficult to

¹⁴⁰ Please see Annex 3 and 4 of this document for examples of the 2011 and 2014 Annual Work Programme of the Laguna-Seca COTAS.

¹⁴¹ Open and timely access on the water rights transfers is important because in aquifers with depression cones, such transfers may worsen groundwater abstraction conditions for neighbouring wells, and thus these transactions require to be strictly regulated, something that generally speaking is left unsanctioned by the authorities at transfers are permitted by law. Furthermore, in the context of groundwater governance institutions, decisions over this matter should not be considered only private decision or private market transactions, but should be subject to deliberative decisions based on consensus-building, not only in the pursuit of private gain, but for a better management of the 'commons'. This situation indeed opens up an interesting discussion regarding the compatibility between modes of governance –in this case between deliberative governance, so to speak, and a market instrument. Accordingly, it could be reasonable to consider that the second should abide to the first and be subject to oversight.

come by. As remarked before, the creation of the COTAS's public sphere has also direct impacts over the pursuit of greater transparency and accountability.

A very important aspect that has already been touched before in this chapter is the one related to anti-corruption fighting, through greater transparency, accountability and public scrutiny. Indeed as already been mentioned the Laguna-Seca COTAS has contributed in the fight against corruption by exercising its right to access to information, by informing on illicit acts to the competent authorities, by publicly questioning the attitudes and actions of state institutions, and also by attempting to foster a culture of legality, transparency and accountability with the groundwater users.

There is also the issue of the Laguna-Seca COTAS' internal and external accountability issues. It is appropriate to comment that the Laguna-Seca COTAS follows a rigorous system of bookkeeping regarding its financial accounts. As such clear financial accountability measures have to be followed according to the Laguna-Seca COTAS Operation Rules, that require the COTAS's Technical Management to have a Treasurer and Supervising Committee to whom all financial information is presented. Other sources of accountability are the operation rules pertaining to the agreements of cooperation the Laguna-Seca COTAS enters into with State institutions and that have their own financial accountability regulation systems. There is also the normal financial accounting that they have to follow as an association of civil society, and that has to be presented on a yearly bases to the Federal Treasury, like all other associations of civil society.

The Laguna-Seca COTAS is also accountable in efficiency terms, and thus it has to produce results in accordance to a yearly work-plan. Accordingly, in the case of the agreement of cooperation with the Conagua, that is agreed upon at the end of each calendar year, the Laguna-Seca COTAS has to present monthly progress reports. In fact the terms and conditions of each year's agreement of cooperation's are critically dependent on the timely and accurate production of such progress reports. Very importantly, in terms of its internal accountability also the Laguna-Seca COTAS Technical Management is also responsible of performing the activities agreed upon by the Governing Board in previous consultation with the groundwater users. This is to say that the Technical Management has to abide to the mandate, mission and objectives agreed by consensus and established in its constitutive act.

- *Institutional Effects: Political Legitimacy*

It is important to remember that the Laguna-Seca COTAS is an auxiliary entity of the RBCs and its existence and role is present in the 2004 National Water Law; so as such it is fully entitled to support State institutions in all activities oriented at fostering a more sustainable groundwater management and through the participation of groundwater users. This situation, in principle, not only gives clear political legitimacy to this and all COTAS, but also some form of official political leverage. Besides this important situation there are other extremely relevant sources for the realisation of this potential democratic effect.

An important consideration highlighted by groundwater users and the Laguna-Seca COTAS's Governing Board's members is that for them, at least, the COTAS gains political legitimacy through contestation and through the use of their countervailing power, notwithstanding its important limitations. Accordingly, groundwater users feel that their interests are represented through the COTAS and that government actions are tamed or at least put into the open for discussion. It is possible to say also that the COTAS gains its internal and external legitimacy through its credibility with the users and the State institutions. In the case of its internal legitimacy amongst its members, in reality its political legitimacy has been constructed almost through 'word of mouth'. In this sense, as the COTAS continues to provide useful advice and support its users, these in turn, will continue to recommend other groundwater users to approach the COTAS, and become members in order to benefit from its services and its political representation. So it is actually through its usefulness, diligence and respect of the rule of law, that the Laguna-SECA COTAS has gained its internal legitimacy.

The Laguna-SECA COTAS has also pursued its political legitimacy through responsiveness and efficiency. Accordingly, the Governing Board of the COTAS and the Technical Management Office have clearly realised that its legitimacy lies also in their level of responsiveness to the problems and concerns of its membership, and also in the level of effectiveness in which they can address issues and solve problems. This situation is important, because although the great majority of groundwater users interviewed or with whom conversations were sustained, consider that the COTAS is indeed responsive and efficient for certain aspects –that have already been mostly referred to in the past sections of this chapter–, they also consider it to be extremely limited in other substantive functions and capabilities. This

situation does not only has to do with the Laguna-Seca COTAS per se, but is common to other COTAS, as explained in the previous sections of this chapter. Hence, the Laguna- Seca COTAS' members generally consider, for example, that it does not carry enough political leverage, does not really have an impact over groundwater over-exploitation, does not have enough financial resources to sustain a more influential operation and to support a greater number of people, etc.

Very importantly the political legitimacy of the Laguna-Seca COTAS has been gained through the individuals that participate in them. In this sense, there has been care in the configuration of its Governing Board, its Technical Management Team, the Main Vocals/Representatives, and its Supervisory Committee, as the individuals that are part of such bodies all command the respect from part of the community and hold good reputations' and are considered to be law-abiding citizens. Finally, the Laguna-Seca COTAS has also gained its legitimacy, as already mentioned through honesty, transparency and accountability. In its constitutive act there are a number of procedures that serve to support transparency and accountability.

- *Institutional Effects: Stakeholder Cooperation throughout Governing Process*

The Laguna-Seca COTAS, regardless of the small room for manoeuvre it has, it does provide some stakeholder cooperation, externally with a number of institutions and organisations, and internally with its membership. Some of these roles have already been mentioned before in the course of the exposition on the democratic effects of the Laguna-Seca COTAS. Still, perhaps it's worth emphasising that the Laguna-Seca COTAS works with the CONAGUA in several matters, for example under the auspices of the Well Rehabilitation Programme of the CONAGUA, the Laguna-Seca COTAS provides technical and administrative support in the implementation of the Programme. In fact, the Laguna-Seca COTAS is entrusted with the contracting-out of the technical and construction works, as well as with the supervisory role. So far the Laguna-Seca COTAS has assisted in the rehabilitation of close to 25 wells across the territory of the aquifer.

The above is only one example of this stakeholder cooperation role, and already other coordination activities have been described above in previous sections of this chapter. So, it seems important to comment that the Laguna-Seca COTAS has already created a relatively stable network of cooperation with some government authorities, academic centres and also some foundations. It is indeed one node on

matters concerning the sustainable management of the aquifer, a situation that is influenced by the leadership and the personal networks of the people that are part of the COTAS' Governing Board.

More recently, in order to gain access to greater financial sustenance the Laguna-Seca COTAS recently began to engage in some form of consultancy service for the CONAGUA and the CEAG, and by undertaking different kinds of technical studies. This situation, although supporting the role of the Laguna-Seca COTAS in groundwater management, has also created some form of tension between groundwater users and also with the State institutions. This tension has to do with the opinion of some groundwater users that the COTAS should not turn into a consultancy entity, because its role should be more political and critical.¹⁴²

- *Institutional Effects: Effective Problem Solving and Alternative Mode of Governance*

It is difficult to assess in a clear-cut manner the contribution of the Laguna-Seca COTAS to effective problem solving and the construction of an alternative mode of governance, specially when in reality the groundwater over-exploitation problem surpasses in many ways its capabilities, and also its remit –as after all the COTAS are only consultative bodies. So, in terms of its contribution to effective problem solving it is possible to say that the Laguna-Seca COTAS has had a meagre and indirect role. In reality, in terms of the reduction of groundwater over-exploitation the Laguna-Seca COTAS's contribution has been probably null, as it cannot really act over the critical problem: the reduction and control of groundwater concessions. Notwithstanding this appreciation, if we tame down our expectations, it is possible consider that the Laguna-SECA COTAS plays a different role that has an important value for the local water polity, and as elaborated in the previous sections of this chapter. In the end the Laguna-Seca COTAS does contribute to the attainment of some other democratic effects, and this has a value as it addresses some of the undemocratic forces present in the local water polity.

¹⁴² There is another source of tension that has to do with this situation. In some cases other COTAS have carried out deficient technical work and have delivered their results behind schedule, a situation that ha generated a bad precedent with the State institutions and creates difficulties for further engagement in this type of activities. In the opinion of scholars such as Marañon and Lopez (2010) and Torregorsa (interview), this situation is also creating the danger of developing important dependencies from the State and also of co-optation of the COTAS.

In terms of the Laguna-Seca COTAS's contribution towards the creation of an alternative mode of governance, in my opinion, albeit it does not really have executive decision-making powers, it is still creating an important precedent as an incipient form socio-political governance arrangement; and although it seems that its institutional development has reached a plateau –that seems difficult to surpass if more broader structural changes do not come along– it still produces some other democratic effects and it still manages to support a socio-political governance process, with some level of social participation and stakeholder cooperation.

6.4.3. The Preconditions that Affect the Democratic Performance of the Laguna-Seca COTAS: Institutional Design Features and Contextual-Background Conditions

- *Institutional Design Features: Broad Stakeholder Participation and Interest Pursuit*

A serious institutional design flaw of the Laguna-Seca COTAS that affects the pursuit of the potential democratic effects –developmental, public sphere and institutional effects– is its limited capacity to convene groundwater users to participate in it as regular members. In reality only 675 groundwater users (37% of the total groundwater users of the aquifer) are registered members of the Laguna-Seca COTAS. A second important institutional design flaw is that the Laguna-Seca COTAS has not managed to include all the relevant stakeholders in its membership. To date only 5 members of the industrial use participate in the COTAS, and do it so sporadically. No large-scale landholders participate at all in the Laguna-Seca COTAS. Mostly the mid-size landholders are the ones participating more regularly, alongside a smaller number of small-scale landholders and *ejidatarios* (8 *ejidatarios*) This situation is despite the efforts made by the Technical Management Team to be inclusive. Of course, that stakeholder participation is limited creates problems for the attainment of the three forms of potential democratic effects. Most importantly in terms of the institutional effects, the attainment of greater political legitimacy and equality is hampered, as in reality the Laguna-Seca COTAS cannot be considered representative of the interests of the majority of stakeholders.

There are several factors affecting this level and form of stakeholder participation. One way to explain this flaw is that the aquifer covers a very vast territory, and so convening all stakeholders to attend to meetings and participate more proactively is difficult and would require a specific strategy and financial resources to address this

situation. This vast extension of the Laguna-Seca aquifer is also a barrier for the attainment of developmental effects, as the timely socialisation and distribution of relevant information, as well as its retrieval is difficult. Socialising and gathering information is a costly activity for the Laguna-Seca COTAS. This same situation creates a problem in terms of the participation in the deliberative arenas and other meetings convened by the COTAS, as some stakeholders also find it difficult and costly to travel to them. So, frequently the turn over in the deliberative arenas organised by the Laguna-Seca is low. This is why scholars like Moreno, Marañon and Lopez (2010) consider that it would be more adequate to create smaller 'groundwater management units' with more or less the same scope and institutional structure of the COTAS, but with a smaller scale.

In conversations with the Technical Team, they feel that industry does not often participate because they consider that the COTAS cannot really address the critical problem of reducing groundwater abstractions. Industry also feels that already they are doing all they can by re-using water in their processes and premises, and so there is little to discuss. They also want to avoid conflict with other groundwater users. In the case of small-scale landholders and *ejidatarios*, they do not participate constantly, because it is expensive for them to travel to the meetings' venues and to take the time to attend –as most people really live day-by-day. Unfortunately, the Laguna-Seca COTAS has limited financial and human resources to ensure that marginalised and disenfranchised stakeholders participate in the COTAS. Still despite these limitations the Technical Team does devote efforts to support these stakeholders the best they can. At times they even hire a transport services to pick up stakeholders at 'strategic points' along the way.

The Technical Team talked about an important consideration that could help improve stakeholder participation. They are wondering if it would be a 'good idea' to make the membership to the COTAS compulsory, as part of the responsibilities of groundwater users –just like paying their water rights. This is an interesting consideration with no clear-cut responses. In principle these types of socio-political governance arrangements should function on a voluntary basis, but maybe making participation compulsory is another possibility. So relevantly, it is possible to say that the perceived and real weakness of the COTAS deters social participation/involvement, and at the same time the lack of such participation/involvement contributes to its weakness. A vicious cycle that in my opinion is by design; that is to say the State has considered it this way.

Both problems, the low level of stakeholder involvement and the limited scope of stakeholder participation, are also affected by the path-dependency generated by a third institutional design flaw that has to do with how the COTAS was established. Despite some extra-ordinary effort was made during the convening phase of the Laguna-Seca COTAS to be broadly inclusive, this process was still rushed through – in relation to the amount of time that is necessary to really enable social participation–, giving little time for the idea to be socialised across all stakeholders, and giving little time for stakeholders to react. This is an important aspect that has to change if the CONAGUA wants the COTAS to have an opportunity to be successful. Again, in my opinion, I believe that the characteristics of this process are also by design.

- *Institutional Design Features: Internal and External Accountability and Transparency*

The institutional design features of the COTAS do provide for internal and external accountability and transparency, and this is based in several main mechanisms. The first one is the deliberative arena. It is in the context of the deliberative arenas where accountability, responsiveness and transparency are played out. Here it is important to recall that the institutional structure of the MSPs for groundwater management, COTAS, provides for two forms of deliberative arenas. The first one is the Assembly of Water Users, and the second one is the deliberative arena of the Governing Board. During the Assembly of Water Users the members of the Governing Board present relevant information, including a progress report on how the COTAS has advanced in its 'Annual Work Programme' and other relevant situations. It is in this context that the Governing Board is responsive to the COTAS -overall- and the Water User Vocals to their constituencies. It is during the Governing Board's deliberative arenas when the different COTAS officials discuss a range of different matters and concerns regarding groundwater management, and when decisions are taken regarding the role of the COTAS in this process. Decisions are taken if possible by consensus, if not by voting. During this deliberative arenas the President, Secretary, and Treasury all respond to any questions or concerns on behalf of the Water User Representatives, Government Authorities and other stakeholders. The Technical Secretary does the same.

Another source internal democracy is promoted or structured by the accountability and transparency provisions present in the Laguna-Seca COTAS 'constitutive act' in its condition as a 'civil association'. In this constitutive act there is a specific 'accountability and transparency' section that clearly stipulates the different mechanisms and processes to these purposes. Ultimately as a civil association the Mexican Civil Code structures the penalties and sanctions if the organisation or a person in the organisation breaches the law.¹⁴³

In terms of external accountability, responsiveness and transparency, the Laguna-SECA COTAS is required to present an Annual Activity Report to CONAGUA that describes in-detail the activities performed by it. It is also required to present a Annual Financial Report describing the manner in which the financial resources provided by the CONAGUA have spent during the previous year. If so considered, the CONAGUA can ask for this financial report to be audited by an external auditing firm. It is only after both reports are cleared that the Laguna-Seca COTAS receives its financial replenishment for the next year.

- *Institutional Design Features: Decision Making through Reasoned Deliberation and the Force of the Better Argument*

As mentioned above the Laguna-Seca COTAS provides for different deliberative arenas where different relevant matters are discussed openly and freely by the stakeholders attending them. Generally speaking, there is always a moderator –that can be at times the President, Secretary, Treasury or the Technical Secretary. There is seems to be amongst participants a general understanding of the 'rules' that norm the behaviour during public deliberation: people wait their turns to talk, the moderator asks for short and 'to the point' statements, meetings are venues that allow are reasonably comfortable and safe, etc.

I witnessed some important discussions regarding for example the orientation and content of a new groundwater resources management plan –the Laguna-Seca POMSA–; and albeit the topic was contested and the COTAS 's membership was extremely anxious about the way this programme was developed –without due stakeholder participation–, the deliberative arena was kept 'civilised' and functional. Stakeholders were communicating and the State was made accountable for the way it organised the process. As a result of the public deliberation process, the State had

¹⁴³ The Laguna-Seca COTAS constitutive act is integrated as annex 2 of this document and for the interested reader to review.

to respond to the democratic pressures, and so the decision was made to fully review the POMSA through the organisation of an open and inclusive dialogue with the participation of all the relevant stakeholders.

Still, not all is good. The deliberative arenas of the COTAS suffer from the lack of stakeholder representation, as frequently not all the representatives that need to attend do so, and also not all the stakeholders that would like to attend can do be there. In this sense, the deliberative arenas generally lack the political legitimacy necessary to support and strengthen their decision-making capabilities. The Governing Board and the Technical Team are all aware of this situation, but they do not have the financial resources to support a broader participation at every deliberative arena organised. This is an important problem. Also, the deliberative arenas cannot be organised that frequently -for all the aforementioned reasons-, so the opportunity for stakeholders to engage in public deliberation is rather limited, a situation that in turn, affects the overall democratic performance of the Laguna-Seca COTAS.

- *Institutional Features: Political Equality and the Common Good as Institutional Design Principles*

When looking at the MSPs for groundwater management, COTAS, institutional scope established by the 2004 NWL –and other documents–, it is possible to consider that the common good and political equality are embedded in their institutional design principles. The COTAS, *de jure*, are all about harnessing an inclusive social participation/involvement and enabling greater stakeholder cooperation throughout the groundwater management process. As such the COTAS are suppose to participate in many relevant processes that ultimately would represent supporting the pursuit of political equality and the common good. Unfortunately, *de facto*, the Laguna-Seca has a limited capacity to provide for political equality and the common, as I already discuss in the respective section addressing the potential democratic effects of the MSPs for groundwater management, COTAS. In this sense, in order for the Laguna-SECA COTAS to have greater capacity to attain political equality and the common good it would require to be a more powerful entity. Still as already explained also in the respective section, the Laguna-Seca COTAS does provide for some of countervailing power that indeed has changed the conditions of some of its most marginal and disenfranchised members.

- *Contextual Background Conditions: Relationship with the State*

The relationship of the COTAS with the State is an aspect that is extremely influential in the definition of the Laguna-Seca COTAS's capacity to produce democratic effects, and more broadly its institutional development. Let me recall, that the Laguna-Seca COTAS is ultimately a socio-political governance arrangement designed and established by the State, and thus there are some inherent limitations. In this sense, the State clearly determined that the COTAS are only consultative bodies, with no executive powers, no political autonomy (that is they need to abide to the rule of law, and they cannot change their scale, scope and institutional structure. They are also mostly financially dependent on the State. Ultimately, the State establishes the COTAS and can terminate them also, or let them wither away –like was the case of the Querétaro Valley COTAS. So in reality the COTAS are not decentralised institutions that can take decisions and then execute them accordingly. Their empowerment is relatively small and circumscribed. This is the operational context of the Laguna-Seca COTAS, and it is within this context, these 'structural conditions', that it manoeuvres in its pursuit of objectives and endeavours. A clear example of this is the AofC between the CEAG and the Laguna-Seca COTAS that serves really as an instrument of control, rather than as instrument to enable cooperative relationships. I would like to refer to a number of clauses in this AofC that are telling about the spirit of the relationship between the State and the COTAS.

“Art. 3: “The financial resources’ disbursement (for the COTAS) is conditioned to the progress validation undertaken by the CEAG, who will present an opinion about them to the Technical Committee of the FIPAMSA, who will then take a decision to either approve the disbursement or make observations.” (2012 AofC between the CEAG and the COTAS: p. 5)

“Art.7: The COTAS is obligated to develop its maximum capacities and apply its knowledge to fulfil the instructions that the CEAG makes regarding the activities to be undertaken under this AofC. The COTAS is obligated to comply to this instructions and communicated through the Social Management Office of the CEAG.” (2012 AofC between the CEAG and the COTAS: p. 6)

Art 8: When and if the COTAS or the CEAG receive any confidential information, marked as ‘reserved’ or ‘confidential’, the parties will abstain to communicate to any third parties.” (2012 AofC between the CEAG and the COTAS: p. 6)

“Art 10: The parties accept that any result or any information product of the activities undertaken under this AofC will belong exclusively to the CEAG.” (2012 AofC between the CEAG and the COTAS: p. 7)

Art 11: The CEAG may terminate this AofC in any moment, and should communicate in writing with 30 days notice. In such a case the CEAG will only cover the financial expenses incurred during those 30 days.” (2012 AofC between the CEAG and the COTAS: p. 7)

A number of strategic-selectivities have also affected the present status of the Laguna-SECA COTAS, like for example the way they it was established without due consideration for building a broader social base –a situation that would definitely would have convey it with greater empowerment–, the limited and conditional financial resources that it receives to operate, the general ambivalence towards its institutional development, and the lack of consistent meta-governing strategies to support it. Overall, the relationship with the State has definitely influenced –and is influencing– the Laguna-Seca COTAS institutional development path, in my opinion in detriment of its full potential as an MSP for groundwater management. If the new meta-governance strategies being implemented in the State of Guanajuato with the SIMSA fully materialise, maybe the relationship of the Laguna-Seca COTAS with the State might change, and it may attain greater empowerment (i.e. network power) to support greater social participation/involvement, stakeholder cooperation, and ultimately also the attainment of stronger democratic effects.

- *Contextual Background Conditions: Substantive Political Equality and Social Equity*

Conditions of political equality and social equity play out in many different and complex ways, influencing the democratic performance of the Laguna-Seca COTAS. The following narrative is just a succinct elaboration on this aspect. For example, if we look at the composition of the Laguna-Seca COTAS’ Governing Board, its Presidents, Secretaries and Treasuries generally have all been people with a high level socio-economic profile, usually mid-sized landholders agriculturalist and stockbreeders. This ‘power positions’ within the Laguna-Seca COTAS are held by popular election, but access to those positions is somehow predetermined by socio-economic status. This is because groundwater users search for people with enough financial resources, influence, education and ‘networks’ to support the roles that this type of political positions imply and to serve the goals of the COTAS. It is important to remember, that albeit the groundwater management role of the Laguna COTAS is small, it still manages to have access to some financial resources that they later distribute.

In the case of Technical Secretary, a qualified sociologist with managerial experience has carried out the job since the establishment of the COTAS. Access to this position has been determined mostly by professional qualifications. In the case of the Water User Vocals, these positions are also held by popular election and the profile is relatively more mixed, but still the individuals selected usually already command the respect of their constituencies, because they are either successful economically or have also played some previous political role. It is relevant to highlight that in the case of the Laguna-Seca COTAS almost all of this 'power positions' are male dominated, except for the Technical Secretary –a situation that is highly unusual. Gender inequality is definitely a great challenge.

In terms of the 'usual' participants to the deliberative arenas, it is possible to say that most of them (perhaps an average of 70% of the attendees) are mid-size and large landholders that are capable of attending to these sessions and that have enough information, education and political understanding to realise that participating in the Laguna-Seca COTAS may bring some individual and collective benefit. The rest of the participants are small-scale landholders and ejidatarios, but it seems to be that they mostly participate when specific topics are going to be discussed, and mostly on the occasions when access to different forms of government support is going to be the main topic of discussions. They also attend upon special request of the Technical Secretary, who sends for them, and when the topics of discussion demand their participation and support. When talking informally with some *ejidatarios* they all recognise the supportive role granted by the Technical Team, so when they are summoned to participate for a specific purpose, they usually assist. Still, as I already mentioned in previous sections of this chapter, it is generally difficult for the small-scale producers and the ejidatarios to attend to these meetings, because the economic cost of travelling to the venues and also of spending a day away from their work is sometimes difficult to bear.

The way that socio-economic inequalities also play out in the Laguna-Seca COTAS is through the social interaction in the deliberative arenas. In many of the deliberative arenas I attended the participants who exercised more thoroughly their right to voice are mid-size and large landholders, and the representatives of industry and urban-public use; and not so much the small-scale landholders and the *ejidatarios*. On many occasions the role of the moderator is to actually entice their participation. In informal conversations with the *ejidatarios* most of them are not really interested in the policy process or politics (*la política*), but they do participate in the Laguna-Seca

COTAS because in the past they have benefited tangibly or materially from this, a situation that remains a powerful incentive.

It is important to acknowledge that the allocation and change of groundwater concessions remains in the hand of the CONAGUA (in its central office). So when any actor wants to change their allocations they do not go through the Laguna-Seca COTAS, they go directly to the CONAGUA, a situation that is source of inequality, because it is usually the case that the more powerful actors have the necessary networks to 'open the doors' of the institution to pursue their interests. Another very important way in which socio-economic inequality plays out in the context of groundwater management, but that the Laguna-Seca COTAS cannot do anything about –or very little– is that the groundwater users that have financial resources to dig more profound wells and buy more expensive pumping technology are the ones that continue to benefit from the 'commons'. The rest, if they happen to have their well situated in an abatement/depression cone they suffer the immediate consequence of the tragedy of the commons and they gradually lose their physical access to water, although legally they still hold the entitlements. In any case what the Laguna-Seca COTAS has sometimes managed to do is to support the refurbishment of wells and the buying of pumping equipment –for the *ejidatarios*. This is not necessarily a sustainable solution, but it helps them to maintain their livelihoods. This situation, as I already mentioned before, drives the legal and illegal water transfers. The COTAS is also not at the centre of controlling or monitoring these transactions, and thus has no bearing in the process. Finally, corruption is also a great amplifier of socio-economic inequality. The Laguna-Seca COTAS attempts to play positive a role in controlling corruption, but again has no authority to sanction or persecute, so it only denounces it.

6.5. End Comments to this Chapter

Groundwater management in Mexico is at crossroads, if the rampant groundwater over-exploitation rates continue, the livelihoods and socio-economic viability of regions and urban settlements will be severely compromised. In several cases already we have seen that 'water security' is 'bought' through incredibly expensive 'infrastructure solutions', the building of long aqueducts and water transfers that only move the socio-economic and environmental problems to other neighbouring regions and into the future –a typical feature of the capitalist environmental crisis and its preferred policy options. This is the case of the Queretaro Region, the first fieldwork

area chosen for this PhD and where the Queretaro Valley COTAS withered away after the decision to build the aqueduct was taken. In the case of the Laguna-Seca Aquifer, in several places with harsh 'abatement cones' landowners-producers have had to abandon their ranches for good, leaving their livelihoods, property and birthrights. These types of solutions and problems only attest to the incapability of the Neo-liberal Statehood formation in developing 'institutional solutions', instead of infrastructural ones, evidencing a crisis in water resources management and more broadly water politics.

Traditional hierarchical and regulatory instruments do not address well the problems related to the 'tragedy of the groundwater commons', evidence of this has been retrieved from cases all over the world, including Mexico. This is the reason why other strategies oriented at enabling socio-political governance arrangements attempting to enable authentic social participation/Involvement and stakeholder cooperation have been developed, sometimes a bit more spontaneously, and some other times by design. Therefore, the State-strategy to establish MSPs for groundwater management, COTAS, in Mexico seemed an adequate and timely response, initially. Unfortunately, today after 15 years of being established, the COTAS remain peripheral to the problem of groundwater over-exploitation, and with very little influence over the groundwater management process. There are several reasons for this situation, as this chapter has evidenced.

In the history of the Mexican water polity there has been two different attempts to conform MSPs for groundwater management, as new forms of institutional innovation for socio-political water governance. The first one implemented by the CONAGUA's central offices, and that evidence shows was more of a rhetoric exercise alleging support for the implementation of IWRM principles, decentralisation processes, social participation, stakeholder cooperation and democratic planning. The reality is that the CONAGUA's strategy of implementation of MSPs for groundwater management, COTAS, is full of drawbacks and contradictions. The drawbacks are clear: the COTAS have not been able to address groundwater over-exploitation; they remain extremely weak institutions; their role is only consultative which in practice means that they do not have any definitive role in groundwater management; they are not financially self-sustaining, so they depend mostly on the financial support from the State, a situation that limits their scope of action and their countervailing power; they only enable a limited social participation and stakeholder cooperation, because they

usually are established without the necessary care for building their social basis; and sometimes they present important political legitimacy and political representation problems, because they are captured by powerful socio-economic actors and remain exclusionary of minorities. The severity or particularity of these problems, of course, can vary on a case-by-case basis, but this is the general tendency. Despite the open criticism from the COTAS themselves, scholars and even civil servants at the CONAGUA, the State does not seem willing to embark in a progressive institutional reform process that could strengthen the COTAS. Furthermore, the contradictions continue to manifest. One of the first Presidential Decrees of the new President Enrique Peña Nieto (2012-2018) was to declare the whole of the country under the figure of an abstraction prohibition zone. With this move the central-State strengthens its control, not over groundwater over-exploitation –a history has proven–, but over the allocation and use of groundwater resources –something completely different. Scholars and practitioners were hoping for this Presidential Decree to be accompanied by greater support towards the strengthening of the MSPs for groundwater management, but this has not been the case.

The second attempt corresponds to the effort made by the State of Guanajuato to implement also MSPs for groundwater management. Initially this exercise manifested some promising features, specially because it appeared that the Guanajuato COTAS would be fully decentralised, autonomous, executive and financially sustainable socio-political governance arrangements, with a substantive role and influence over groundwater management processes. Initially, this initiative benefited from a series of critical junctures that enabled some progressive prospects. Unfortunately, the initiative lost momentum against the power of the central State, whose reluctance to loose control hindered the institutional development of the COTAS. Ultimately, the CONAGUA at a central level remains in control over the allocation and re-allocation of groundwater concessions, where –if managed properly and with the participation of groundwater user– the real power to manage groundwater over-exploitation lies. Also, the shift in the local leadership in the CEAG and in the CONAGUA State Office in Guanajuato has also hindered the process, as the more progressive ‘power blocs’ seem to have left and with this the support for the institutional development of the COTAS has dwindled. This situation warns against the Historical Institutionalists concerns with the existence of ‘precipitating’ causes or drivers that fade away fast, and that when elements change the orientation of institutional change also declines. This is worrying, because it could mean that

democratisation is not really a 'structural' cause, but that obeys only to the presence of other underlying and circumstantial drivers.

As such, currently the Guanajuato COTAS remain also in some form of stalemate or plateau, they exist similarly only as consultative, financially dependent and weak institutions, practically witnessing the depletion of groundwater resources mostly from the sidelines. A vague reminiscence of the initial project remains in the tenacity and commitment of some of the Governing Boards and Technical Management teams of some of the State of Guanajuato COTAS, but mostly the 'mood' of the groundwater users is rather pessimistic, as the expectations have not been fulfilled and the challenges of the COTAS seem to outweigh their prospects. This negative situation seems to be created a strong path-dependency against the prospect of the COTAS ever becoming more active and influential socio-political governance venues. An interesting new initiative, the SIMSA, this time from the CONAGUA State Office in Guanajuato shows some promising possibilities, but as we will see in the next chapter already there are some concerns. Meanwhile the problem of groundwater over-exploitation still continues pervasively, alongside other worrying problems: legal and illegal water concessions transfers, and land and water grabbing.

More specifically, if we look at the institutional scope of the COTAS, it seems that the aquifers are sometimes management units that are simply too extensive in their territory, a situation that deters the possibility of generating a 'group identity' and of facilitating the participation of all the groundwater users in the deliberative arenas and other initiatives. In terms of institutional scope the COTAS do seem to play an active role in 'planning and the generation of studies and information', as most of the COTAS do participate in the development of groundwater management plans, and most of the financial resources allocated by the State to the COTAS are ear-marked for these activities. In terms of the 'promotion, socialisation and social participation' functions, these seem to be less far-reaching, they do promote and socialise important information, but their capacity to elicit and enable social participation is limited and their social basis is shallow, a situation that has an extremely negative and weakening impact. Regarding the 'management, coordination, and consensus-building/conflict resolution' functions, these again are fairly limited. In practice the COTAS do not perform or have any real saying in groundwater management. Their role as coordinating entities is not fully recognised either, because they are perceived as weak institutions by other State agencies and stakeholders. They are equipped to

be a consensus building and conflict resolution sight, but again as they remain peripheral to groundwater management and remain consultative bodies they do not carry the political clout or the legitimacy and representation to function properly to these purposes. In terms of their 'finance and economic valuation' functions, the COTAS do make efforts to constitute as 'civil associations' to be able to receive funding, but usually the case is that they manage to capture very little resources from external sources. Unfortunately, they are mostly fully financially dependent from the State, a situation that makes them extremely vulnerable and subject to many dimensions of 'power in' and 'power over'. They do contribute in the economic valuation of groundwater resources, as it is part of their capacity-building activities. Finally, in terms of accountability, monitoring and evaluation, they do support the monitoring and evaluation of groundwater management policy and regulations; and they also have accountability mechanisms towards the State and their membership, but they do not have any enforcing or 'penalizing' function. Under these general conditions, that COTAS cannot, at all, address the groundwater over-exploitation they face.

The contradictions in the Mexican water polity are profound in that the strong limitations of both the centralist-hierarchical-regulatory State-strategies and the lack of true support for the institutional development of the MSPs, actually create a governing void that perpetuates the 'tragedy of the groundwater commons'. In reality the centralist-hierarchical-regulatory and the MSPs strategies as they currently stand are not synergic strategies and remain at odds, a situation that has already been identified as problematic in the governance studies literature. Furthermore, the current institutional weakness of the COTAS is creating an important path-dependency that could be difficult to break, if by chance there are any future attempts to revert this situation.

I will be optimistic in my round-up comments about the democratic performance of the Laguna-Seca COTAS by saying, that despite all of the contextual or structural limitations, it is a source of developmental, public sphere and institutional effects. Furthermore, the analysis of the democratic performance of the Laguna-Seca COTAS shows that the Laguna-Seca COTAS has been able to develop some form of countervailing power that remains a source of democratic effects and renewal, a situation that has to be appreciated against the backdrop of the highly centralist, hierarchical and even autocratic role that certain power centres of the Mexican State play throughout groundwater resources management. Recalling the different

considerations presented in chapter-1 regarding the compatibility 'conditions' of socio-political governance arrangements with current liberal democratic practice –incompatible, complementary, transition, instrumental–, it is possible to say that in the case of Mexico the nature and characteristics of the democratic practice in the country make socio-political governance arrangements incompatible. This reflection supports also another important consideration with broader implications, as I describe in the end of this chapter.

"I'm a pessimist because of intelligence, but an optimist because of the will." ¹⁴⁴ Still, I would like to end this chapter with an optimistic perspective. The study of the establishment and institutional development of the MSPs for groundwater management, COTAS, helps to confirm the hypothesis guiding this PhD research, that the role of the State in the institutional development of the MSPs for groundwater management has been highly contradictory and limiting, but that socio-political governance arrangements, like the MSPs for groundwater management, still allow for the contingency in political processes and the array of social forces to offer uncertainty and maybe enable opportunity for a more socially progressive, democratic and sustainable groundwater resources management. In this sense, I would like to comment on the role of social agency. I was impressed by the tenacity and perseverance of the Laguna-Seca COTAS Technical Management Team. It is amazing how the Laguna-Seca COTAS –despite so many 'structural' limitations and from a remote office in the 'middle of nowhere'– has managed to defend the interests of its membership and of the aquifer, and by developing some form of countervailing power..

Nonetheless, an important point to make is that the preconditions that affect the attainment of the democratic effects of the COTAS are very real. Some of these preconditions may be addressed through changes in the institutional design features of the COTAS, a situation that would require careful consideration, but also most importantly political will on behalf of the State –more specifically on behalf of certain power blocs behind the State. In reality the prospect and challenges of the COTAS to become more empowered and democratic venues for socio-political groundwater governance lie in broader and deeper political democratisation and social equity reforms that are difficult to foresee in the context of the present socio-political and economic context. In this process the role of the State seems will continue to be

¹⁴⁴ Rosengarten, F (ed (2011), Antonio Gramsci, Letters from Prison, Vol. 1, New York, USA, Columbia University Press, Verso, p: 17

strikingly limiting. I suppose this one reason why the more critical scholars –the ones really following the original Political-Ecology tradition– are increasingly and worryingly becoming more interested in the dynamics of water conflicts and social movements.

The next chapter will focus on some incipient State meta-governance strategies and capacities that are being considered by the CONAGUA and the CONAGUA State Office in Guanajuato. It will also develop a more insightful argumentation on the role of the State in the establishment and institutional development of the MSPs for groundwater management, COTAS.

Figure 23: The Laguna-Seca COTAS
“The Contingency of Countervailing Power”



Source: Informal presentation Laguna-Seca COTAS, Technical Management Team

Chapter 7: The State Meta-governance Strategies and Capacities, and the Role of the State in Water Resources Management: The Fifth and Sixth Moments of Analysis

7.1. Introduction

This chapter corresponds to the implementation of the fifth and sixth moments of analysis of the heuristic-analytical device (v. The State's Meta-governance Capacity Assessment and vi. the Role of the State in the Establishment and Development of Socio-political Governance Arrangements and Water Resources Management). It starts with presenting a brief elaboration on some recent developments regarding the CONAGUA's meta-governance strategies being considered for governing over the MSPs for groundwater management, COTAS. Although these considerations show that some progress is being made in terms of ideas and intentions, these considerations are still somewhat ambiguous and general. A commentary on this situation will be made in the first section of this chapter. In its second section, it devotes efforts to present some recent developments in terms of the meta-governance strategies developed by the CONAGUA's State Office in Guanajuato: the implementation of the Integral System for the Management of Aquifers (*SIMSA para el Manejo de Acuíferos, SIMSA*). The SIMSA is a promising system that may help to support the institutional development of the COTAS in the State of Guanajuato, and in my opinion represents a progressive meta-governance strategy. Finally, the chapter addresses the issue of the role of the State in the institutional development of the MSPs for groundwater management and more broadly water resources management, and as a manner of summarising or concluding upon what already has been elaborated throughout this document on the subject matter.

7.2. CONAGUA's Meta-governing Strategies for the MSPs for Groundwater Management, COTAS: Some Reflections on Recent Developments

Until very recently the CONAGUA had not really considered developing the necessary meta-governance strategies and capacities to consistently govern and support the institutional development of the MSPs for groundwater management, COTAS. The governing process over the COTAS was mostly carried out haphazardly through the initiative and discretion of individual civil servants –at different State offices or 'power centres'– who tried different options according to the ideas and resources at their disposal. In some cases, like the State of Guanajuato and at least for some time, there was more or less a consistent meta-governance

strategy that had some positive impacts over the institutional development of the COTAS, as described in the previous chapter. Still when leadership behind this process left their official functions as civil servants, the institutional development process of the COTAS stalled –amongst other important reasons, as elaborations in the previous chapter describe. Still the general opinion of scholars and practitioners is that at a national level, strategies were at best inconsistent and periodical (Escolero, 2005; Marañon and Lopez, 2008; Wester, Sandoval and Hoogesteger, 2010). Only very few policy documents helping to steer and orient policy makers exist, and as already mentioned they only give some general idea about how to proceed with the establishment and institutional development of the COTAS.

At a national level, CONAGUA's main strategy, before approximately 2010, was to continue to establish COTAS across the country, using only a few prescriptive and descriptive documents to guide their own regional/local staff and the water users about the establishment and institutional development process (CONAGUA, 2000, the 2004 NWL; CONAGUA, 2010). For the 2006-2012 CONAGUA's administration the strategic importance of groundwater management was more openly recognised, including also the role of the COTAS in that process. So, some actions were taken to develop a more consistent approach in the institutional development of the COTAS. Still at the beginning of the administration's term, CONAGUA's position was mostly oriented at the establishment of more COTAS, without really offering a more thorough and consistent support for their institutional development. This strategy has been criticised by some senior and mid-level civil servants in CONAGUA, because it has created a very complex scenario: there are more COTAS across the country that require support, and the process has generated amongst groundwater users large expectations about their opportunity to meaningfully participate in the governing process; expectations that, under the present situation, will remain unmet.¹⁴⁵

Still there seems to be some sign of progress, as more current policy documents attest to the need to change the COTAS's weak situation and begin to more proactively support their institutional development (CONAGUA, 2010; CONAGUA, 2011). These documents begin to describe some initial considerations regarding how to better govern (i.e. meta-govern) over the COTAS and what kind of support they require to enable their institutional development process. For example, CONAGUA's

¹⁴⁵ I am grateful for the information and insight provided by Ms Lydia Meade and Mr Jose Alfredo Jimenez –both at the River Basin Management and Auxiliary Bodies Office of CONAGUA– on CONAGUA's efforts to develop a more coherent meta-governance strategy to support the MSPs for groundwater management.

'2030 Water Agenda', clearly stipulates –under its Strategic Initiative No. 1– the need to more strongly support the COTAS through 4 important pathways: giving them a more relevant role in groundwater management; developing the capacity of their representatives to intervene closely in the management and planning of the aquifer; developing information systems on the dynamics of the aquifers and the knowledge of withdrawals and recharge rates; and ensuring their financial operation through legally binding procedures linked to withdrawals (CONAGUA, 2010). More details on these elements will be presented below. Other policy documents, like the reviewed version of the 'Basic Documents of the RBC and Auxiliary Bodies' (*Documentos Básicos de los Consejos de Cuenca, CONAGUA, 2010b*) also consider a number of meta-governing strategies that I will also present below. To organise the presentation on the meta-governance strategies I will follow the characterisation on the meta-governance strategies and capacities established by the heuristic-analytical device: coordination and steering; enabling social participation; institutional support, democratic vigilance, and policy consistence.

- *Coordination and Steering of the MSPs for Groundwater Management*

In CONAGUA there is a specialised office that seeks to coordinate the activities of the COTAS nationwide, and from where most of the strategies and policies are designed. In terms of steering and coordination, CONAGUA's position is very much oriented at socialising a number of ideas amongst groundwater users regarding the role of the COTAS and the role of groundwater users in them. This strategy seeks to generate a shared vision about their role in groundwater management. More recently, in a couple of documents there is a more direct mention to the notion of 'water governance' and also 'co-responsibility' as two central elements for the institutional development of the COTAS. The following fragment of the Basic Documents of the RBCs and Auxiliary Bodies (CONAGUA, 2010b) reflects this situation:

“Starting from the notion that water is a vital natural resources and common good that should satisfy the needs of society in the most equal manner, it is necessary to have in place the necessary fora that concentrate all the stakeholders in order to enable decision making processes that may allow the equal use of groundwater resources and through the active, informed and responsible stakeholder participation. Social co-responsibility in our country is being sought through the sum of all the efforts of all the stakeholders participating in the river basin councils and its auxiliary bodies, but in order for each one to assume commitments and responsibilities, it is necessary that

each stakeholder has a clear and specific role that he can perform.” (CONAGUA, 2010b: 62) (Translation: Mine)

Hence, efforts are being devoted to the production of more in-detail and clear methodological guidelines clarifying the COTAS’ objectives, their roles and responsibilities in groundwater management. These guidelines also aim to clarify the COTAS’s ‘ideal’ institutional design structure and institutional development process. There are also important considerations regarding to the necessary legal reforms that would provide more solid grounds for the reinforcement of the COTAS’s role in groundwater management. On this aspect of the situation the 2030 Water Agenda (CONAGUA, 2010) considers:

“The organisational and promotional work of the COTAS has shown their potential to undertake tasks of greater magnitude such as intervening in the measurement and monitoring of flows withdrawn from the aquifers, and in planning, management and regulation of the use of aquifers; to achieve this, their intervention needs to be legally reinforced for this and other important support tasks for the institutional administration of the nation’s water, modifying the legal rules that facilitate their intervention.” (CONAGUA, 2010: 35) (Translation: Mine)

There are other aspects of the coordination and steering aspects of the meta-governance strategies that are reflected in the sections below, but share also some concerns with the other dimensions of the meta-governance strategies, and thus I have decided to elaborate on them in the subsequent sections.

- *Enabling Social Participation and Stakeholder Cooperation*

An important comment to make is that recent modifications (2008) –not reforms– to the 2004NWL clearly stipulate that the State is required to proactively support civil society in water resources management processes, including its participation in the MSPs, and so the legal basis to further enable social participation is more clearly established. Whether CONAGUA abides or not to these changes remains to be seen. Chapter 5, Art. 14-bis of the 2004NWL (last reform 2008) stipulates:

“CONAGUA should support organisations of civil society with interests and activities related to integrated water resources management, to participate in the river basin councils, as well as the river basin commissions and the COTAS. In the same manner it will facilitate the participation of research centres, professional associations, and other civil society organisations, and

whose participation may enrich the water resources planning and management process.” (NWL, 2004, Chapter 5, Art. 14bis).

Advancing in the legal basis for social participation is a step forward, but the challenges of enabling social participation in real life contexts are complex; especially under the context of a highly centralised and hierarchical State. As already mentioned, so far CONAGUA’s main meta-governance strategies to address these challenges have been rather timid or narrow, and seem to centre in attempting to support a wider participation of stakeholders –through for example better organised convening periods and socialisation of information processes, the use social promoters, and also a greater allocation of financial resources to support the participation of minority and marginalized groups. Still financial resources are scarce –at least for these purposes– and there seems always to be a rush to establish new COTAS, a situation that damages the democratic process, as reflected before.

It is worth mentioning, that more recently philanthropic foundations –such as the Gonzalo Río Foundation and the Femsa-Coca Cola Foundation– and non-governmental organisations –such as The Nature Conservancy and the World Fund for Nature– have become more interested in enabling socio-political governance arrangements, and hence have been supporting greater social participation in the MSPs –although not exclusively only for the case of the COTAS, but also at the level of micro river basins, and mostly directed at the establishment of payment for environmental services. At the local level there are also examples of more local-level non-governmental organisations that support the participation of minority and marginalised groups in the MSPs.¹⁴⁶ Indeed an important part of CONAGUA’s meta-governing strategies should focus in developing greater coordination with more organisations of civil society.

Social participation requires careful consideration so as to what kind of ‘structural’ conditions determine the possibility or opportunity of different stakeholders to participate in the MSPs. To date I have not seen any published policy document produced by the CONAGUA attempting to address this situation carefully, although through conversations with mid-level civil servants they are of course aware of the challenges. Responses regarding the absence of meta-governance strategies to

¹⁴⁶ For some interesting examples of this situation please see: Pare, L; Robisnon, D and M A González (eds) (2008) *Gestión de Cuencas y Servicios Ambientales, Perspectivas Comunitarias*, México, D.F. Mexico, INECC.

enable greater social participation most of the times imply that there are simply not enough financial resources to support it and that the present legal framework –that maintains the COTAS as consultative bodies– also deters a great number of groundwater users from participating in them. The opinion is that if the COTAS were really to be at the centre of decision-making, social participation would increase.

Regarding stakeholder cooperation there are also some very recent developments that deserve some attention, like the SIMSA in the State of Guanajuato, and that will be described in a later section of this chapter. On CONAGUA's side, worth mentioning is that recently the IMTA was commissioned by the CONAGUA to develop a study oriented at providing policy recommendations to enable greater inter-institutional and stakeholder cooperation. This work has developed a complex matrix of interrelationships that establish potential synergies or complementarities between different government programmes (i.e. the potential interactions between programmes being implemented by different government agencies and non-governmental organisations). The study also focuses in distinguishing different levels of stakeholder engagement: coordination, cooperation, collaboration, and socio-political governance. The study is also oriented at assessing different or rising 'policy networks' around specific programmes. For this study two broad thematic subjects were selected: urban water security for the city of Querétaro, and groundwater management in the State of Guanajuato, and looking more specifically at the SIMSA experience.¹⁴⁷

Other elements related to enabling social participation have to do with enabling better stakeholder representation in the COTAS' activities, an aspect that will be addressed in more detail below under the democratic vigilance meta-governance strategies.

- *MSPs Institutional Support: Financial, Technical and Capacity-building Strategies*

Capacity building is central for meta-governance strategies. Since some time back the CONAGUA has been providing relevant capacity-building courses in several important aspects related to supporting a more sustainable groundwater

¹⁴⁷ I would like to mention that I am part of the team of consultants participating in this study, and I remain very much interested in continuing to study meta-governance strategies, as well as the rise of policy networks, and in order to provide policy recommendations to enable greater stakeholder involvement and inter-institutional coordination. In my opinion one of the most important challenges faced by the Mexican water polity is to address the lack of social participation and the 'silo-effect', as there is little inter-institutional coordination.

management. On this there have been several initiatives providing 'traditional' courses such as IWRM and groundwater management technical, legal and institutional issues. A lot of these courses have been provided by the IMTA. More recently, other themes have emerged also as a priority, such as consensus-building and alternative conflict resolution techniques. Several middle level civil servants have realised that the COTAS' 'Technical Management Teams' and probably also the members of the Governing Boards of the COTAS need to be able to support the efficient functioning of deliberative arenas, and for this they require abilities on consensus-building and conflict resolution. It remains to be seen if this initiative prospers.

In terms of the financial aspects, there are also some interesting strategies being thought that could provide more financial autonomy, and greater independence to the COTAS. The strategy seeks to foster three basic conducts: measuring groundwater abstraction, valuing groundwater, and providing financial incentives for these behaviours. The following extract reflects what it is now being pondered:

"The formation of a fund for the operation of the COTAS could be constituted from the application of a figure of around 5 to 10% of the income from water duties and procedures carried out by the CONAGUA and that are paid by the users of each aquifer. The fund will grow as users measure the withdrawals and pay their corresponding duties. Greater percentages could be conditioned to them and destined to water-saving infrastructure development, artificial recharge, and catchment management to facilitate infiltration. A process of this nature will allow sustainable long-term financing of the operation of the COTAS and will encourage investment in efficient water use." (CONAGUA, 2010:35)
(Translation: Mine)

- *Democratic Vigilance*

Regarding meta-governance strategies concerning the democratic vigilance of the COTAS there are some considerations so as to how to achieve greater stakeholder inclusion and political equality. CONAGUA is considering increasing the number of Water-user Vocals in the Governing Board of the COTAS, probably including up to three to five vocal-representatives per water user groups. More specifically, the idea is to increase to this number only the representatives of the agricultural and the urban-public water users –the most important water users in terms of groundwater abstraction percentages across the country. This consideration seeks to address important problems related to the lack of representativeness and 'capture' generated

by the existence of a sole Water User Vocal's representatives. This situation will allow different 'factions' within each water user groups to be represented in decision-making processes. With this action CONAGUA is hoping to strengthen also the political legitimacy of the COTAS. It remains to be seen if this initiative prospers.

Information serves democracy and empowerment, and so CONAGUA is also considering to provide even greater support to the COTAS in the generation of relevant information regarding the conditions of the aquifer, the groundwater challenges faced, and the pathways for change. To this purpose CONAGUA is thinking different options to channel larger amounts of financial resources to the development of technical studies, a process to be managed entirely in by the COTAS. In order for this to happen, the COTAS first need to be established as non-for-profit secondary associations (*asociaciones civiles sin afán de lucro*), so as to be able to receive financial support from government and other sources. The idea is that the COTAS can then hire special service providers to develop any of the studies they deem necessary to support a more sustainable groundwater management. The COTAS will also be accountable for the use of these financial resources, so strict accounting and transparency measure will also apply. Efforts to establish a legal task force to support the COTAS in their consolidation as civil associations are presently underway.

Another aspect related to 'information' is its socialisation. The assessment made is that frequently relevant information regarding matters concerning the condition of the aquifers, as well as policies, programmes and initiatives for sustainable groundwater resources management of aquifers does not really arrive to all the stakeholders. So, frequently stakeholders do not have the necessary knowledge about situations – challenges, problems, opportunities–, and thus they cannot really participate meaningfully. CONAGUA, therefore, is considering different options to attempt to disseminate relevant information in a timely manner. So far, ideas focus in the use of web-based technologies, face-to-face meetings, and paper-based information. The following abstract is illustrative of CONAGUA's intentions:

"It is essential that the COTAS have access to complete and reliable information that allows them to comprehend the behaviour of their aquifers, which is why information systems must be developed that are accessible to users, where they can consult the data on the allocation of water concessions, the volumes authorised and those that are affected, the latter requiring measurements. (...) As can be observed, without information, the process of organisation and participation of users loses sense and can generate negative

results sus as a lack of trust and belief from the stakeholders towards the authorities, which would subsequently make the ordered management of water resources more difficult.” (CONAGUA, 2010:35) (Translation: Mine)

- *Monitoring and Evaluation Mechanisms*

In order to be able to evaluate the impact of the COTAS in terms of the sustainable management of groundwater resources, as well as to evaluate their institutional development process as MSPs for groundwater management, the CONAGUA is considering developing a monitoring and evaluation system capable of assessing both substantive and procedural indicators. Accordingly, the first group of indicators will reflect the actual impact of the COTAS in the reduction of groundwater abstraction rates; the efficient and sustainable use of groundwater resources; and ultimately, the stabilisation of the aquifer. The second set of indicators will attempt to measure the role of the COTAS in the organisation of social participation/involvement and stakeholder cooperation (e.g. socialisation of information, education and capacity building, legitimacy in decision making, etc.). Within this second set of procedural indicators, CONAGUA is also considering developing ‘social perception’ indicators that would reflect the way in which society actually considers or perceives the role of the COTAS in the sustainable management of aquifers. The idea behind the creation of this new monitoring and evaluation system is to actually be able to determine the role and influence of the COTAS in both the sustainable management of the aquifers and in their capacity to enable social participation/involvement and stakeholder cooperation. Below I present some tentative indicators developed by the CONAGUA (CONAGUA, 2010). The translation is mine, and efforts were made to produce an exact translation of the narrative. To my mind, the ambiguity and even inconsistency in the narrative reflects that it is still very much work in progress.

Table 6: CONAGUA's Procedural and Substantive Indicators for the COTAS (Proposal)		
Criteria	Description	Possible Measurable Outputs
Representation	The participants in the COTAS should represent a significant percentage of the total groundwater users of the aquifers. In principle, the more diversity and heterogeneity of stakeholders involved, the more democratic the COTAS may be.	In a first stage a statistical system may be developed that may register the number of participants and classify them according to water use, and to assess how many water users from which water user group is participating. Other things may be measures such a frequency in attendance.
Independence/ Equality	Ideally, the convening and participation processes should be conducted in an independent manner, without biases, safeguarding the equality of all stakeholders. This implies, amongst other measures, the correct transmission of information, availability of means, as well as the absence of intimidation practices amongst stakeholders and others.	Requires the creation of a series of indicators to assess the process and impact of information socialisation. Implies also the development of a social perception indicator regarding the equality of participation.
Active Implication	The participating public should be present and active during the definition of problems, and the debate surrounding the definition of the problems' principle parameters, and not only consider their participation during the definition of solutions.	Requires the creation of a 'tasks control system', where every product clearly indicates who participated, and every action or initiative determined to also have a direct and accountable responsible. In this way, the level of participation of each stakeholder could be measured.
Effectiveness/ Influence	Social participation should have a direct impact in the decision making process. In order to achieve this it is necessary that the decentralisation process to be complete or for the COTAS to have access to the relevant authorities.	Requires the design and implementation of a careful assessment methodology regarding the range in which the sessions are developed, and actions are attended, and that goes from active participation to co-responsibility.
Transparency	Stakeholders' representatives and stakeholders themselves should be able to witness and influence the decision making process.	Requires the assessment of the socialisation and decision-making mechanisms.
Access to Resources	All the stakeholders should be able to have access to the resources needed to implement their tasks.	Requires the evaluation of concrete support: capacity-building workshops, logistical support, financial resources, etc.
Definition of Goals	The nature and reach of the objectives and activities of each stakeholder should be clearly defined.	Requires an assessment of the quality of the agreements, in terms of actions, duration, responsibilities, etc.
Organisation of Decision-making Processes	An adequate mechanism should exist to structure decision-making processes.	Requires the development of decision making monitoring system to assess the level of consensus attained, the number of votes casted to arrive to an agreement, the number of participants in the debate previous to arriving to a decision, etc.
Note: This table was taken in full from CONAGUA (2010), <i>Documentos Básicos de los Consejos de Cuenca y Organismos Auxiliares</i> , México D.F. México, p.65		

- *Consistent Meta-governance Policy*

As already mentioned CONAGUA's meta-governing strategies are still very incipient, so it is not possible to say that there is consistency in its approach, except that so far CONAGUA is clear that the MSPs for groundwater management, COTAS, are only consultative bodies. So despite the efforts in other 'power centres' to promote a more progressive meta-governance strategy, this is what truly structures or determines the institutional development path of the COTAS. As the reader will see in the next section, what is happening in the State of Guanajuato offers some interesting prospect for the COTAS having a greater role in groundwater management. Nevertheless, this effort is still within the framework provided by the 2004 NWL, and the federal policy regarding the role of the COTAS in the Mexican water polity.

7.3. The CONAGUA's State Office in Guanajuato: Some Recent Meta-governance Strategies over the MSPs for Groundwater Management, COTAS

Within the framework of the 2030 Water Agenda and under its Strategic Initiative -1, the CONAGUA State Office in Guanajuato designed a new and interesting way to support the institutional development of the COTAS, the implementation of an Integral System for the Sustainable Management of Aquifers, SIMSA. The SIMSA seeks to address several aspects involved in sustainable groundwater management and through different pathways. It has five strategic objectives: increase the recharge rate of the aquifer, diminish groundwater demand, develop a new water culture, improve the management of water across all sectors, and improve the legal and institutional arrangements.¹⁴⁸

The point of departure the SIMSA was to consider the need for an 'integral solution' that considers the socio-economic and environmental dimensions involved in the sustainable management of aquifers. Part of this integral solution is to understand how different stakeholders interact with the aquifer, and with each other, in order to support the development of long-term and comprehensive groundwater management plans for each aquifer. So, the following step was to develop a wide-ranging stakeholder map that identifies the different potential interactions of each stakeholder

¹⁴⁸ I am grateful to Edgar Abelleyra, at then Deputy Manager for River Basin Councils and Social Management of CONAGUA's State in Office in Guanajuato for the information and insight on the SIMSA.

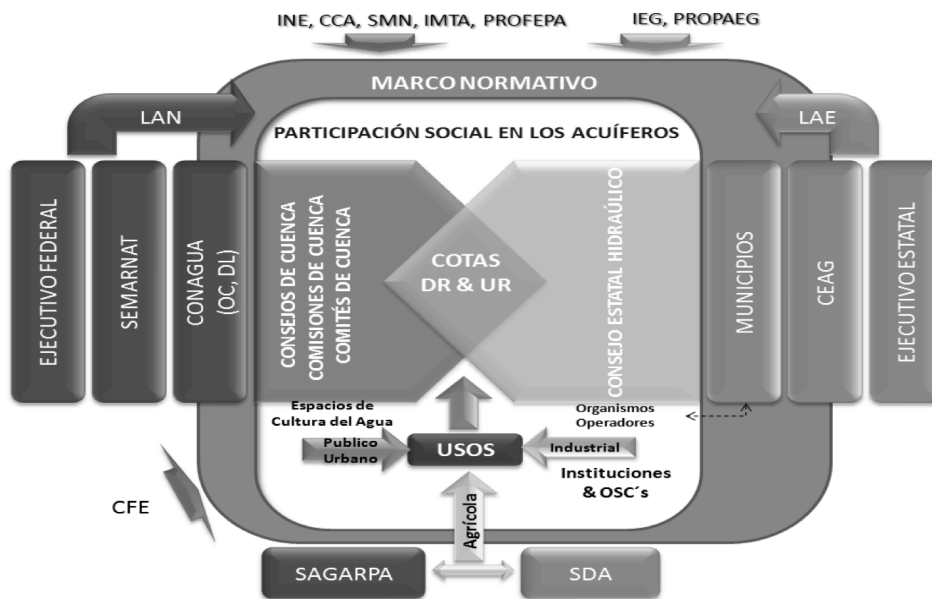
with the aquifer and also with wider natural resources and socio-economic processes that affect its long-term sustainability. The purpose was to clearly identify also the responsibilities and the capacities that each stakeholder has to intervene in groundwater management processes. The matrix below identifies (in the x-axis) the different stakeholders, classifying them in terms of governmental and non-governmental organisations. In the y-axis we find different functions that need to be undertaken to manage the aquifer in a sustainable manner. The potential interventions are established in at the crossings of the x- and y-axes. Each of the crossings is then characterised by the relevant role of the stakeholder involved: principal actor, supportive actor, normative actor, and information manager. Although the matrix is blurred the reader may capture the idea.

The second step was to define how and when each actor could intervene, and most importantly who would coordinate the interventions required. This is where the proposal is extremely innovative, as the CONAGUA State Office in Guanajuato planned for the MSPs for groundwater management, COTAS, to be at the centre of the coordination process, and supported by their respective Consultative Technical Group. The diagrams below seeks to describe this.

Figure 24: The SIMSA: Inter-Institutional Coordination Matrix

Source: CONAGUA State Office in Guanajuato, SIMSA, 2012

Figure 25: The SIMSA: The COTAS as Stakeholder Cooperation Nodes



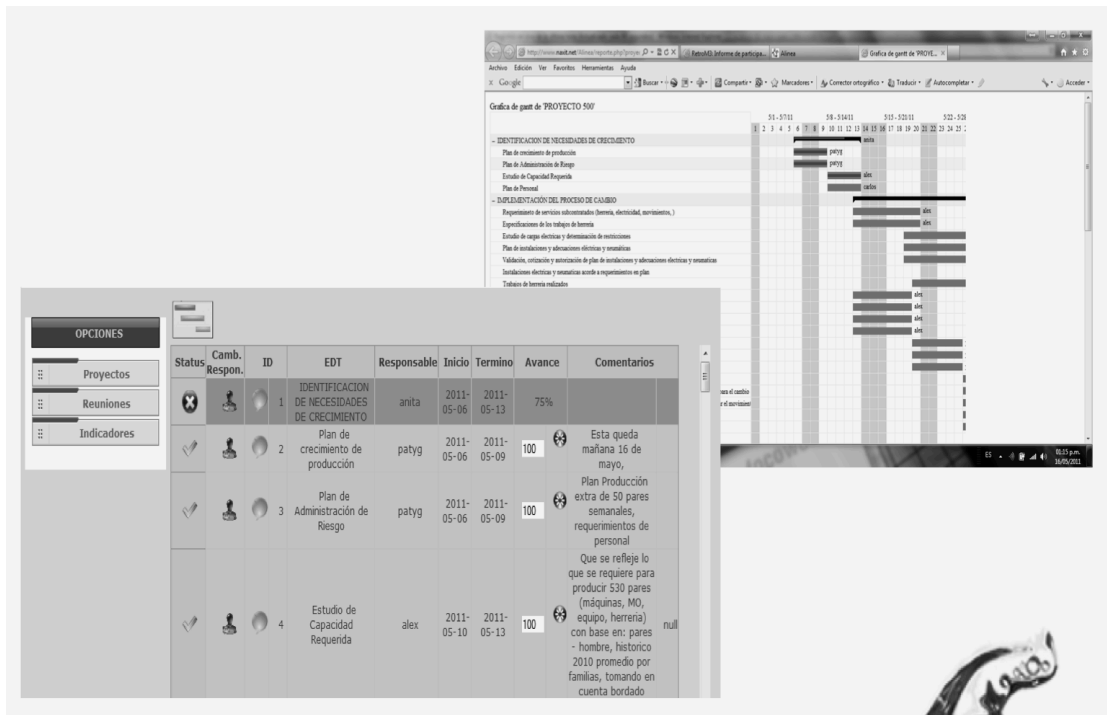
Source: CONAGUA State Office in Guanajuato, SIMSA, 2012

The second phase implies the design of an Operative Programme for the Sustainable Management of the Aquifer (*Programa Operativo de Manejo Sustentable del Acuífero, POMSA*) for each aquifer. These POMSAs will commence with a thorough integration of relevant information produced to-date on each of the aquifers', including: their hydro-geologic and socio-economic situation and the generation of any basic or complementary information required to sustain a technical competent and scientifically based groundwater management process. Then a consensus-driven groundwater management plan making process would start and with due consideration for social participation and stakeholder involvement. One central aspect of the POMSAs is to develop a project portfolio with actions that can achieve synergies and that can be carried out by individual stakeholders –according to their institutional mandates, responsibilities and capacities. The important aspect here is to coordinate actions, and as already mentioned the selected entities for this are the COTAS (CONAGUA State Office, 2011).

A third important aspect involved the design of a web-based project management tool that can be, in principle, accessed by all participating stakeholders and COTAS's

membership. This will help to support transparency and accountability in project implementation.

Figure 26: The SIMSA: Web-based Monitoring and Follow up System



Source: CONAGUA State Office in Guanajuato, SIMSA, 2012

A fourth important aspect considered the restructuring of the ‘network of social participation’. This dimension involves widening the social bases of the COTAS. This is deemed crucial for supporting the political legitimacy of the exercise and for really developing POMSAS that reflect the concerns and the objectives of the groundwater users. At the moment of the PhD research’s fieldwork a new convening and social participation strategy was being designed.

It is too early to say more about this new meta-governance approach being implemented in the State of Guanajuato, but it is possible to say that some ideas look promising, and specially the considerations regarding the need to broaden the COTAS social bases and of locating the COTAS at the centre of the stakeholder cooperation efforts. If this idea materialises, it will convey them with ‘network power’, an important form of power in the context of socio-political governance, and if the

intention is to build a policy network that may support groundwater resources management.¹⁴⁹

7.4. The Role of the Neoliberal Statehood Formation in the Establishment and Institutional Development of the MSPs for Groundwater Management, COTAS

In the previous chapter I have established that the MSPs for groundwater management, COTAS, in the Mexican water polity remain only consultative, financially dependent, weak and vulnerable institutions that exert an extremely reduced role in groundwater management. In some cases, out of the tenacity and perseverance of their Governing Boards and Technical Management teams, the COTAS have supported the attainment of some scant democratic effects, and do play a minimal, yet important, redistributive role. I have also ascertained that the role of the State in the establishment and institutional development of the MSPs for groundwater resources management has mostly been limiting and contradictory, and has produced important drawbacks and path-dependencies. But talking about the State in this manner only reveals an immediate or cursory level of understanding, and there are other elements in the interpretation about the role of the State that deserve some elaboration. In this endeavour I would like to return to the post-Marxist and Strategic-Relational views on the State developed by Poulantzas and Jessop.

In the Mexican water polity the State has definitely proven not to be a monolithic entity, but a strategic field comprised by different power centres that exercise their authority and power to support the stabilisation of different State projects. In the case of the establishment and institutional development of the MSPs for groundwater management in the State of Guanajuato, it was possible to identify at least two power centres, the CONAGUA –at the central level– and the CEAG and the CONAGUA State office in Guanajuato at a local level. These two power centres entered into an important power struggle to influence the definition of the institutional development path of the COTAS. Ultimately, the CONAGUA –at the central level–, as a result of the historical construction of a strong centralisation and federalisation of authority and power, retained the ‘supremacy’ and strength to determine this process. As result of this political struggle, and despite the initial efforts of the CEAG and the

¹⁴⁹ In the last year policy makers in CONAGUA have become more interested in the concept of ‘policy networks’ and want to know more about it. Accordingly, they have commissioned another study to assess the policy networks around different water resources management problems.

CONAGUA State Office in Guanajuato, the State of Guanajuato COTAS remain only consultative, financial dependent, and weak institutions, like the great majority of the rest of the COTAS in the country.

It is my impression that either party did not fight this political struggle lightly, because ultimately the 'stakes' were very high: a redefinition of a State project, and inherently a redefinition of State-society relationships in the governing over groundwater resources. On one side of this political struggle, the central-State acting to continue holding the centralist power and authority over groundwater resources management –despite the obvious drawbacks–, and on the other side, the CEAG –and the State Governor Vicente Fox– 'allegedly' fighting to support a different State project based on greater decentralisation, a progressive form of new federalism, greater social participation and stronger democratic practice. In the end the central-State predominated. Also as leadership changed in the State of Guanajuato the progressive reform momentum was mostly lost. This seems to imply that 'power blocs' in the Mexican water polity are not only mobile, but also shift priorities, pragmatically.

It is possible also to make some other observations regarding the characteristics of the State in the Mexican polity as a strategic field, this time in terms of an internal-institutional strategic field. Throughout the research it was possible to locate also different power centres within the CONAGUA –central office– that sometimes work synergistically, but that also sometimes are antagonistic. In the case of the institutional development of the COTAS, the most important centres that participate in this field are the General Director's Office, the Deputy Technical Direction –where the Groundwater Management Office is located–, the River Basin and Auxiliary Bodies Management Office –that deals directly with the institutional development of the COTAS– and the Deputy Administration Direction –that manages the REPDA, and ultimately the allocation and re-allocation of groundwater concessions. Each has its own turf that is zealously guarded. It is my impression that these power centres do not necessarily work together and at times obey to slightly different priorities. Indeed there is a 'silo' effect operating and a lack of internal coordination. This doctoral research did not address this specific situation, and so no evidence can be presented, but still I venture to make these comments because they seem relevant, and derive from interviews with different relevant individuals.

In my opinion the Deputy Administration Direction has not been 'fully' supportive of the idea of strengthening the COTAS, as for them the problem lies in precisely strengthening the REPDA as a regulatory instrument, and thus they consider that the State should devote greater institutional efforts and financial resources to build a more robust REPDA and to 'really' enforce it across the country. The vision here is of a strong central State and the use of strengthened hierarchical-regulatory instruments. It seems that the vision of the Deputy Technical Direction is that the problem is technical, the State simply lacks the capacity to know what is happening with the aquifers, and thus, it is difficult to manage them. The State also lacks the capacity to produce robust groundwater management plans in all the aquifers, and of course there is the 'huge' problem with the due protocol to enact the aquifers' by-laws. Some individuals in this Deputy Technical Direction seem supportive of the idea of the COTAS, especially in activities related to the development of the necessary studies and also the groundwater management plans, but not necessarily as autonomous executive agencies. It is at the River Basin and Auxiliary Bodies Management Office where we find the most supportive opinion regarding the institutional development of the COTAS, and where it is possible also to find some level of frustration. All of this internal politics between power centres plays out under the shadow of the General Director's Office that casts its authority in an extremely vertical manner, and where other forms of pressure seem to converge from other power centres –outside CONAGUA– with other interests rather than sustainable groundwater management. The result in the end reflects a lack of consensus, lack of coordination, and drawbacks and contradictions.

Furthermore, it is possible to take a step further in the interpretation of the role of the State in the institutional development of the MSPs for groundwater resources management, COTAS, and probe into a deeper layer of causality. Returning again to Poulantzas and Jessop it is possible to also consider the State as a social relation, and not necessarily as a neutral and autonomous coordinator of socio-political relations in the interest of a participatory, democratic and sustainable groundwater resources management, but rather as an entity whose orientation and strategies are determined precisely by the nature of the socio-economic relations surrounding groundwater use, and that are, in turn, defined by the balance of social forces in society. So, how can we envision the orientation of the Mexican State, if in reality the Mexican society is one of the most unequal societies in the world, with a Ginni Coefficient of 48.1, a conservative official poverty headcount of 52.3%, ranking 48 out of 65 in the OECD's 2012 PISA Study, and a growing multi-dimensional social

exclusion, and systemic violence? The question is then, what type of State formation may exist in Mexico when the Mexican society also shows some extremely worrying characteristics?

In my opinion, the Neoliberal Statehood formation not only has failed to support the much-warranted institutional development of the MSPs, but also has more directly and openly failed to protect groundwater resources management. Furthermore, it has done so at the same time that it seems to be protecting the socio-economic and political interests of dominant domestic and increasingly more international elites who continue to rampantly over-exploit groundwater resources management. It is then that by continuing with the use of centralist, hierarchical and regulatory instruments and by refusing to truly support socio-political governance arrangements that groundwater over-exploitation continues rampantly. It is clear for most of the Laguna-Seca Aquifer's groundwater users who are the largest groundwater users of the aquifer: the large-landholders and irrigated districts. These large landholders not only have huge groundwater concessions, but also have the financial resources to drill deep wells and buy more powerful pumping equipment, therefore eluding –for the time being– some of the problems that other farmers are now experiencing pumping groundwater. Actually, large landholders are also turning their lands into industrial parks, retaining the same amount of groundwater volumes. It is important to recall that the large-landholders do not participate as members of the Laguna-Seca COTAS, as membership is voluntary, and thus they are not subject of any form of transparency and social scrutiny.

I believe that the Mexican water polity seems to be 'trapped' in a 'descending spiral', whereby dominant and powerful domestic and international economic interests somehow influence or even define the role of the State in groundwater resources management.¹⁵⁰ The Mexican State, more than actually managing water resources in a participatory, democratic and sustainable manner, seems to be focused in the reproduction of the legal, institutional and socio-political conditions that continue to allow for groundwater over-exploitation. The Mexican State seems to be acting like a 'typical' Neo-liberal capitalist state, enabling the reproduction of dominant economic and political interests that allow for the process of capital accumulation to continue –

¹⁵⁰ This situation is acquiring greater visibility due to extremely contentious topic regarding 'fracking' and the use –and pollution– of extremely scarce groundwater resources. Mexico ranks sixth in the world in proven shale-gas reserves, most of the fields being localised in the already water-stressed regions of the country.

that in the case of groundwater management is accumulation by dispossession—, and regardless of any environmental and social equity considerations. Whether this regressive and unsustainable situation allows also for the perpetuation of this form of capitalist Statehood formation remains to be seen, and as social conflict for the use of dwindling groundwater resources escalate. On this aspect and interpretation of the role of the State in water resources management, Aboites, Cifuentes, Jimenez, and Torregrosa (2008) seem to share this view on the orientation and nature of the State in the Mexican water polity:

“Our central thesis is that water resources management shows with great fidelity the inequality and inequity that characterises the Mexican society, an old historical problem that has worsened in the current national and international economic and political context of the previous decades. Furthermore, with great concern we see in the water sector a State’s performance well below a satisfactory level and an extremely disorganised intervention on its behalf. The State should not only regulate and manage water uses for economic development, it should foster measures that enable a profound behavioural change in society and of the practices that are putting in grave risk the mid and long-term viability of the society-Nature relationship.” (Jimenez, Torregorsa and Aboites, 2008: 7)

Chapter 8: Overall End Comments

8.1. Introduction

This chapter presents some overall end comments to this PhD thesis. It is divided in retrospective and prospective reflections. The first section provides some reflections regarding the long-duration and my professional involvement during the doctoral research process. Then I proceed to provide some considerations regarding the integration of the research questions and the heuristic analytical device. Following, I comment on the actual application of this device, and the limitations and appropriateness of its operationalization. Finally, the second section presents some prospective reflections, considering some research opportunities for the future.

8.1. Retrospective Reflections

- *The Long-Duration and my Professional Involvement*

I would like to start the retrospective reflections regarding this doctoral research process by commenting that I am happy that this process took the time that it did, because of a number of reasons. As stated before, finishing earlier would have meant, of course, that the phenomenon under study would have hardly had some years happening, and so the consequences of the implementation of Neo-liberal State-Strategies would have only initially been felt. If I had delivered my thesis as planned, lets say in 2003, most probably the conclusion would have probably depicted a more promising conclusion regarding the prospects and challenges of the COTAS. The thesis would also have not engaged so thoroughly in studying the role of the State in this process. So the long-duration allowed for the phenomenon to develop and for the consequences to take more form, allowing for a greater richness in my scholarly investigation.

Also, after years of experience in the water policy sector and of a very close involvement with the phenomenon under the study, I think that I was able to gain an interesting insight into the causes and factors –operating at different layers– influencing its development and unfolding. Actually, when I come to think about it, I was being part of the process of State transformation myself, although my inexperience did not really allowed me to truly understand the scope and magnitude of the transformation process underway. My professional involvement also helped to look at the same process –its dynamics and consequences– from the perspective of

a UN Officer. My work in UN-Habitat allowed me to gain first hand experience of the drawbacks and contradictions of the Neoliberal State-strategies, this time by helping other stakeholders to address some of the grave drawbacks resulting from their implementation, specially in peri-urban areas of cities across the country. So again this long-duration allowed me to gain a different perspective –perhaps more insightful and mature– regarding the phenomenon under study. My years as an external consultant of CONAGUA have also been influential in the writing of my doctoral research. More recently, I have been able to participate in a ‘task force’ that is currently making a diagnostics of the water resources challenges in the Mexican water polity in order to provide policy recommendations for an ‘integral water sector reform’, also as mentioned before. This has enabled me again to re-assess the complexities of the CONAGUA and the Mexican water polity, and its prospects and challenges; and of course the efforts undertaken for my doctoral research have been extremely helpful. So in a way during all these years both by doctoral research and my professional involvement worked as a ‘circular’ feedback mechanism.

- *Some Words on the Integration of the Research Questions and the Heuristic Analytical Device*

The research questions were gradually integrated as I became more familiar with the scholarly literature, through my engagement with the fieldwork, and through my professional involvement. In honesty, the first research questions considered were the ones related specifically to the socio-political governance arrangements, and oriented at analysing their prospects and challenges (i.e. following a standard and perhaps more narrow New Institutional perspective). Later, a second group of questions emerged, this time regarding the democratic performance of such socio-political governance arrangements, and driven by critical scholarly concerns regarding to their democratic credentials, as already established in the previous chapters. Soon through my engagement with the literature, I found out that the associative and deliberative democratic theorists were working on this relationship and were offering interesting research pathways that I decided to operationalize in my doctoral research. A coincidental meeting with John Dryzek at Nuffield College in Oxford was also very inspirational.

It was not after some years of my professional involvement and engagement with the specialised literature, how I arrived at fathoming that the phenomenon of the establishment and institutional development of socio-political governance

arrangements was truly embedded in a wider and deeper process of Neo-liberal State transformation, and that it was just merely one of the various State-strategies in its repertoire (i.e. a phenomenon embedded in another one of greater magnitude). Consequently, the consideration made was that definitely there was a need to address a wider historical-institutional context (i.e. to follow more of a Historical Institutional approach). This is also when I came across with the more recent theoretical developments in the field of water resources management and water governance, and when the MSPs concept emerged as an ad-hoc option that helped to establish more precise research questions regarding the institutional design features of the COTAS. At that time, the doctoral research started to acquire a more precise focus –and perhaps a more ambitious one. As such the phenomenon under study started to demand a greater understanding of the role of the State and power in the context of socio-political governance arrangements, a situation that prompted my engagement with the theorisation on the phenomenon of the State and power. This engagement with the concept of the State and the more recent governance studies literature eventually led me to encounter a pathway to study the role of the State in establishment of the MSPs for groundwater resources management: the meta-governance notion.

Very importantly, the idea of designing a heuristic-analytical device came to mind after reviewing David Harvey's *Justice, Nature and the Geography of Difference*. So after some reckoning it became more clear that I was actually in front of a complex phenomenon that had various forms of manifestation, with slightly different temporalities, and that required for its study a more 'sophisticated' analytical framework. Consequently, there was need to capture different aspects of a wider phenomenon with different forms of manifestation, and with causalities that operated at different 'layers'. So I devoted efforts to develop the heuristic-analytical device.

- *On the Implementation of the Heuristic-Analytical Device: The Appropriateness and Limitations of its Operationalization*

The *first moment of analysis* in reality represents a long-engagement with the literature review, and whereby I encountered an interesting body of literature that sought to describe and analyse a comprehensive phenomenon, the governance phenomenon. If I reflect on such engagement, I can say that it has been extremely interesting to see how the literature evolved through time. Initially, the books on the subject matter were mapping out the 'terrain' and attempted to describe and explain

this phenomenon through a more 'generalist' perspective. The literature was also beginning to identify 'hot spots', topics that deserved more attention. Several years later the literature had definitely evolved and became more specific. New complementary approaches have been developed –such as the State centric-relational approach. Some more precise analytical tools have been concocted, for example to address issues of institutional development of socio-political governance arrangements, ways to assess the performance of socio-political governance arrangements, matters concerning meta-governance strategies and capacities, ways to improve the effectiveness of socio-political governance, ways to assess the democratic performance of socio-political governance arrangements, and some other 'new dilemmas'. Consequently, the application of the first moment of analysis did not only directly produced the development of the *explanandum*, but it has been really an educational experience. In terms of the doctoral research efforts were made throughout this long PhD process to incorporate these new developments, a situation that has been challenging, but that has also represented an interesting opportunity to make efforts to maintain the doctoral work timely and relevant.

The literature on associative and deliberative democracy has, to my mind, remained less prolific and innovative than the one on the governance phenomenon. There have been new efforts, specially seeking to analyse new 'associative and deliberative institutions' for example in the field of environmental politics, but the current approaches are very similar to the ones established some time ago, and by the 'classic authors' on the subject matter. Notwithstanding, this situation I still consider that both theories, the associative and deliberative democratic theories, did provide theoretical means to contribute to the definition of the research problem and to support an insightful case study analysis. The assessment of the democratic effects of the Laguna-Seca COTAS attests to this opinion.

The theoretical engagement with Historical Institutionalism represents the underlying foundation of the PhD thesis, and so its analytical prowess has been made more explicit and more 'active' in the present version of this thesis, and as a result of the constructive comments made during my viva-examination. I think this action has contributed to more clearly establish analytical variables, and present information and insights in a more orderly fashion. This new form of engaging with HI also gave the opportunity to more clearly establish the State and power as two central elements in the study of socio-political governance arrangements, and to develop the necessary theoretical and analytical elements to be able to study the role of the State

in the implementation of State-strategies, the establishment and institutional development of the MSPs for groundwater management; and more broadly the role of the State in water resources management. Still the use of an HI approach represents some implementation challenges, because it demands a careful definition of elements to include as part of the descriptive and analytical narratives, as well as the definition of boundaries. There is always the possibility to simply over-extend the narratives, disregard important facts, emphasize facts that perhaps have not been so influential or consequential, and simply lack the writing skills to make such narratives interesting and worthwhile.

Another important comment to make on performing the first moment of analysis is that it has also been interesting to see the evolution of the governance debate after many years. Initially, the water governance debate was mostly imbued with notions of governability, a situation that as mentioned in the thesis created important limitations mainly in terms of policy research and institutional reform. Gradually, the debate evolved in an interesting manner, and I think it has currently caught up with the mainstream governance debate in the political sciences, a situation that has opened up an opportunity for more critical analysis and progressive policy recommendations. In this sense, the governance and water governance discourses seem to have become more permeable and interconnected, a situation that seems to be benefiting both.

After all this time, the gradual definition and refinement of the research problem was supported by the engagement with the aforementioned theoretical literature and also by my experience working in the Mexican water polity. Definitely the literature provided me with the identification of a research problem and also with the necessary analytical concepts to support the design of the heuristic-analytical device, but it was my experience working with CONAGUA what really prompted me to study the role of the State in water resources management, and the prospect and challenges of the MSPs for water resources management, including their democratic performance. This orientation derives from the consideration that the Mexican water polity really needs new institutional settings that can enable greater social participation, stakeholder cooperation and democratisation.

The theoretical engagement produced the design of the heuristic-analytical device that, in turn, supported a structured, sequenced and layered assessment of different elements and through different 'moments of analysis' that focus on different aspects of the research subject and problem. Each moment builds on its preceding one and

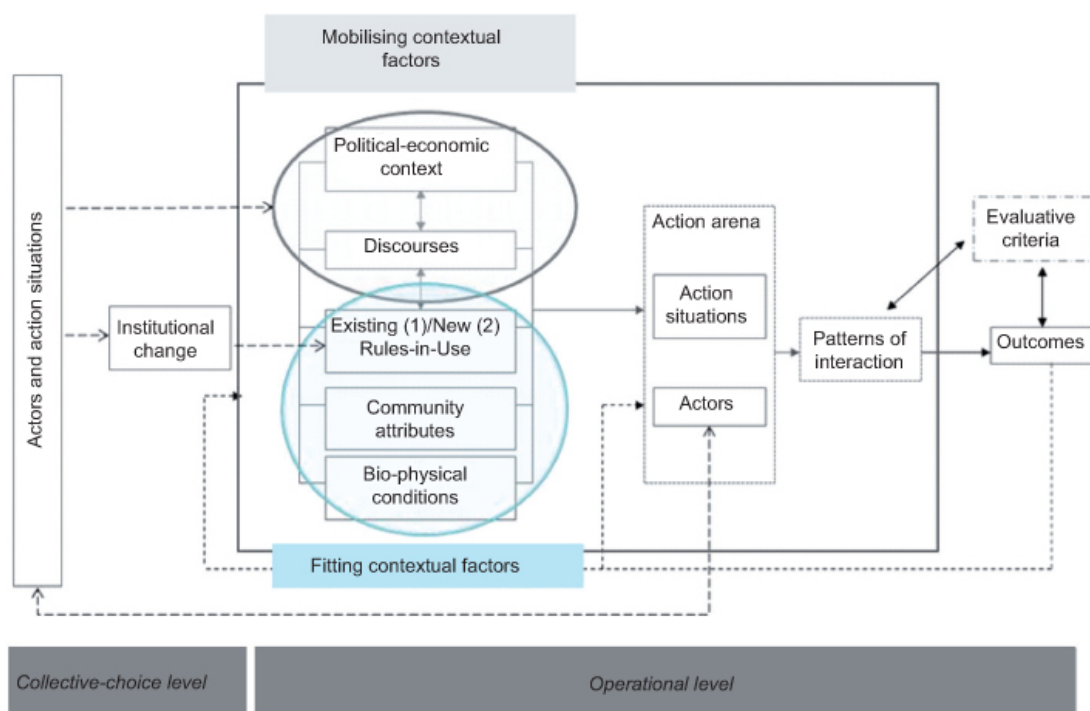
somehow the findings of each moment also contribute to the 'integrity' or the 'validity' of the overall findings, almost like going through layers of reality –a central concern of critical realism. To my mind, after the sequence was completed, the device offered a clear presentation of the *explanandum* and a 'comprehensive' narrative of that presents an *explanans*.

The *second moment of analysis* attempted a Historical Institutional assessment of the State-building and Neo-liberal State-transformation process in the Mexican water polity. In my opinion, the application of this moment of analysis managed to recreate the most important features of the historical-institutional context –the main ideologies, ideas, institutions, policy processes and socio-political struggles– of three distinct Statehood formations, highlighting the most consequential situations and aspects. It centres its attention in the Neo-liberal Statehood formation and the implementation of a number of State-strategies aiming to modify the orientation and characteristics of the State, and the relationships between the State and society. My intention with the application of this moment of analysis was to provide a thorough, but focused historical-institutional description and exploration of the wider context where the actual process of the MSPs establishment and institutional development was taking place, and in order to carefully embed it in history. Although the chapter may feel a 'bit' long, it is my impression that the information presented and insight developed regarding the Mexican water polity and the process of Neo-liberal State transformation allows to 'grasp' the complexity of the phenomenon under study, and functions a bit like 'gyroscope' that allowing the reader to orient him/herself in it.

The *third moment of analysis* probes into a next layer of the phenomenon under study. It starts again by providing some general historical-institutionalist considerations of the development of groundwater management policy in the Mexican water polity, highlighting important drawbacks in the role of the State and its centralist, hierarchical and regulatory instruments. It allowed presenting the most important drivers behind the establishment of the MSPs for groundwater resources management, to later provide a critical institutional analysis. Then with the aid of the 'paradoxical' case of the State of Guanajuato COTAS, it underscores and highlights the drawbacks and contradictions in the role of the State in the establishment and institutional development of the MSPs. It is fair to say that perhaps there could have been another route to implement this third moment of analysis, like for example undertaking a comparative analysis of three or five different COTAS, and analyse carefully their institutional development path. That maybe could have provided an

interesting input regarding institutional design considerations and their interplay with contextual-background conditions. In my opinion this would have required of a more sophisticated model of institutional analysis, like the Institutional Analysis and Development Framework developed by E Ostrom (2005). To my mind, there is once caveat in the pursuit of this approach, the COTASs' institutional development is unfortunately rather limited and meagre, and so it seems not worthy to attempt more complicated forms of institutional analysis. Also, I think that the doctoral research has proved that the main problem lies elsewhere: in the role of the State.

Figure 27: The IAD Framework developed by E Ostrom (2005)
 'A more sophisticated framework'



Source: Ostrom E, (2005)

The *fourth moment analysis* seeks to investigate a different layer in the relationship between cause and effect in the process of establishment and institutional development of the COTAS, and by identifying a number of potential democratic effects and the preconditions that seem to affect their achievement. With this action some insights were presented on the developmental, public sphere and institutional effects of the Laguna-Seca COTAS. These insights provided a more comprehensive understanding of the functioning, and the prospects and challenges of the Laguna-Seca COTAS. It is possible to consider that these prospects and challenges seem to be shared by most of the COTAS in the country. I acknowledge that some of the

findings resulting from the application of this moment of analysis are a somewhat vague and imprecise, but still I believe that the overall situation and tendency is clear and telling. The production of more concrete information regarding the specificities of the Laguna-Seca COTAS's potential democratic effects and the preconditions that affected their attainment would have required a much more extensive fieldwork, that was beyond the reach of my doctoral research. Some words regarding future research on these matters are presented in the next section of this chapter.

The application of the *fifth moment of analysis* shifts the main focus again to the role of State. This moment of analysis represents an effort to identify and assess the State-meta-governance strategies and capacities. Again it follows a basic comparative approach between the CONAGUA's incipient meta-governance 'strategies' and the CONAGUA State Office in Guanajuato ones. The findings allow us again to distinguish that the central State is moving extremely slow and uncommittedly in this endeavour, and the State of Guanajuato is considering a more progressive approach. This moment of analysis operates also at a different layer, and reinforces the findings regarding the role of the State in the establishment and institutional development of the COTAS. I acknowledge that the information presented is somewhat plain, specially regarding the CONAGUA's approach, but this is because the approach is itself rather plain and fussy. In the case of the State of Guanajuato, what I attempted to emphasise was the intention to put the COTAS at the centre of stakeholder coordination, a strategy that if it happens it could really represent a step forward in developing a more empowered and participatory socio-political water governance.

Finally, the *sixth moment of analysis* probes more directly into the relationship between the role of the State and its orientation as derived from the characteristics of its 'strategic field' and the nature of the 'power blocs' and the social forces behind it. The image here represented is of a capitalist State that allows for the *status quo* to remain in favour of the unsustainable, undemocratic and unequal use of groundwater resources. In retrospect, I would have liked to better structure this moment of analysis in order to be able to more clearly identify the social forces behind the State and more clearly characterise the power dynamics behind this *status quo*.

8.3. Prospective Reflections

I approach this last prospective section with great enthusiasm, because I feel that this doctoral project opened-up a range of opportunities for future scholarly and also professional research, not only to complement it and to complete some of the tasks left undone on this occasion, but to actually spin-off other research possibilities. I will devote then some final remarks on this.

To complement this doctoral research it would be interesting to study in more depth the power centres, power blocs and social forces behind the *statuo-quo* in terms of groundwater resources management in the country, but also more particularly in the State of Guanajuato.

As mentioned in the thesis the Querétaro Valley COTAS has ceased to exist, mainly because there is an apparent sense of water security derived from the construction of a mega-aqueduct that according to calculations will grant water security for the next 100 years. It seems that an interesting research could be to critically analyse this water security strategy, who has gained –and will gain–, and who has lost; and to assess what is happening now to the aquifer. Maybe in this case a ‘counterfactual social science approach’ could be deployed to study other ‘water demand’ approaches, determine their potential costs-benefits and compare them to the actual ‘hard-infrastructure-supply’ solution.

Another interesting possibility would be to carry out a comprehensive and comparative institutional analysis of the 14 COTAS in the State of Guanajuato –probably using the IAD framework or some modified version of it– and to be able to develop some statistical generalisations. By carrying out the comparative case study in the same State, this could help to isolate some variables and convey greater importance to considerations regarding social agency, local leadership and the interplay of local networks of power. This could throw some interesting findings regarding to ‘strategic indeterminacy’ (Olin Wright, 2010), this is to say to the always present possibility of many different levels and pathways for the formation of countervailing power.

One other interesting research possibility that derives from the engagement with the present doctoral research could be to study the actual process of ‘accumulation by dispossession’ implied in the increasing land and groundwater grabbing process that

has increased in the last years in several regions of the country. It will be interesting to hypothesise how this form of capital accumulation actually obstructs the realisation of sustainable groundwater resources management and environmental justice.

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**Annex A: Constitutive Act of the Laguna-Seca COTAS
Modification of Legal Status**

Sol.: 83707

Registro Público de SAN LUIS Pto.
LIC. JAVIER ADOLFO LÓPEZ MÁRQUEZ

14:38 25/02/2014

Revisor: 010P33 (3)



Lic. JAVIER Adolfo López Márquez

NOTARIA PUBLICA No. 3

PLAZA DE LA PAZ 103-A SAN LUIS DE LA PAZ, GTO. C.P. 37900 Tel. (468) 688-21-84
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TESTIMONIO DE LA ESCRITURA: PUBLICA NUMERO 14159 VOLUMEN CXI, RELACIONADA CON LA PROTOCOLIZACION DEL ACTA DE ASAMBLEA GENERAL EXTRAORDINARIA DE ASOCIADOS DEL CONSEJO TECNICO DE AGUAS DE LAGUNA SECA A.C.

FECHA ESCRITURA: 17 FEBRERO 2014

FECHA EXPEDICION PRIMER TESTIMONIO: 17 FEBRERO 2014



Lic. Javier Adolfo López Márquez
NOTARIO PUBLICO No. 3

PLAZA DE LA PAZ 103-A SAN LUIS DE LA PAZ, GTO. C.P. 37900 Tel. (468)688-2184

TOMO CXI CENTESIMO DECIMO PRIMERO

PARTIDA 14159 CATORCE MIL CIENTO CINCUENTA Y NUEVE

FOLIOS 17163 DIECISIETE MIL CIENTO SESENTA Y TRES Y 17166 DIECISIETE MIL CIENTO SESENTA Y SEIS

EN LA CIUDAD DE SAN LUIS DE LA PAZ, ESTADO DE GUANAJUATO, A LOS 17 DIECISIETE DÍAS DEL MES DE FEBRERO DEL AÑO 2014 DOS MIL CATORCE, EL SUSCRITO, LICENCIADO JAVIER ADOLFO LÓPEZ MÁRQUEZ, NOTARIO PUBLICO NUMERO TRES, QUE ACTÚA EN FORMA LEGAL EN EL PARTIDO JUDICIAL, EN MI DOMICILIO PARTICULAR UBICADO EN EL NUMERO 103 CIENTO TRES LETRA A DE LA PLAZA DE LA PAZ, HAGO CONSTAR: LA PROTOCOLIZACIÓN DEL ACTA DE ASAMBLEA GENERAL EXTRAORDINARIA DE ASOCIADOS DEL CONSEJO TÉCNICO DE AGUAS DE LAGUNA SECA, ASOCIACIÓN CIVIL, CON REGISTRO FEDERAL DE CAUSANTES CTA991208DN9. A PETICIÓN DE LA COMISIONADA A ESTE ACTO, DE NOMBRE ELIZABETH GRETEL AGUILAR VALERO, Y AL EFECTO ME PONE A LA VISTA EN 11 ONCE HOJAS TAMAÑO CARTA IMPRESAS EN SU ANVERSO, Y SE ENCUENTRA ASENTADO LO SIGUIENTE:

ACTA DE ASAMBLEA GENERAL EXTRAORDINARIA DE ASOCIADOS DEL CONSEJO TÉCNICO DE AGUAS DE LAGUNA SECA, ASOCIACIÓN CIVIL, DE FECHA 24 DE SEPTIEMBRE DE 2013 DOS MIL TRECE

En la ciudad de San José Iturbide, Guanajuato, siendo las 11:15 once horas con quince minutos del día 24 de Septiembre de 2013 dos mil trece, estando reunidos en las instalaciones de la Asociación Ganadera Local de San José Iturbide, ubicadas en calle Gómez Farias No. 8 esquina con Degollado, Colonia Centro de San José Iturbide, Estado de Guanajuato, los ciudadanos MVZ. Manuel Gerardo García Rangel, el L.L. José Antonio de la Vega Andrade, Abel Gutiérrez de la Vega, Victor Noel García Martínez, Ma. Vanessa Gamba Aguilera, José Jesús Quevedo Mata Representante del Ejido Misión de Chichimecas, Alfredo Morales Flores, Representante del Ejido Santa Ana y Lobos Casco de la Hacienda, Gerardo Brizuela Orozco, Prof. Gustavo Valtierra Romero, Sergio Mejía Rivera representante de la C. María de la Luz Rivera Rodríguez y el MVZ. Enrique Alejandro Arvizu Valencia, todos ellos integrantes del Consejo Directivo y Órgano de Control y Vigilancia, así como asociados de adhesión integrantes del Consejo Técnico de Aguas de Laguna Seca, Asociación Civil, conforme a la lista de asistencia, para efecto de llevar a cabo la Asamblea General Extraordinaria de asociados de la misma, la cual se desarrolló conforme a la siguiente:

ORDEN DEL DIA

PUNTO	HORA	ASUNTO
1.-	11:00	Recepción y registro de participantes
2.-	11:25	Bienvenida y objetivo de la Primera Asamblea General Extraordinaria
3.-	11:45	Nombramiento de escrutadores
4.-	12:00	Lista de presentes y declaración de quórum legal
5.-	12:10	Informe de actividades de enero – septiembre de 2013 del COTAS de Laguna Seca, A.C.
6.-	12:30	Análisis y aprobación del Manual Organizacional del COTAS de Laguna Seca, A.C.
7.-	12:45	Modificación a los Estatutos del Acta Constitutiva del COTAS de Laguna Seca, A.C. referentes al patrimonio y liquidación de la Asociación para obtener la Clave Única de Registro de las Asociaciones de la Sociedad Civil (CLUNI)
8.-	13:00	Propuesta de Candidatos para ocupar el cargo de Tesorero del COTAS de Laguna Seca, A.C.
9.-	13:20	Elección del Tesorero del COTAS de Laguna Seca, A.C. para el periodo 2013-2014
10.-	13:30	Designación del Delegado Especial para realizar los trámites legales necesarios para la Protocolización e Inscripción del acta que se levante para tal efecto.
11.-	13:40	Asuntos generales y acuerdos
12.-	14:00	Clausura de la Primera Asamblea General Extraordinaria

1.- RECEPCIÓN Y REGISTRO DE PARTICIPANTES

Como primer punto de la Orden del Día, se llevó a efecto la recepción y registro de participantes.-----

BIENVENIDA Y OBJETIVO DE LA PRIMERA ASAMBLEA GENERAL EXTRAORDINARIA DEL CONSEJO TÉCNICO DE AGUAS DE LAGUNA SECA, A.C.

Como segundo punto.- El MVZ Manuel Gerardo García Rangel, Presidente del COTAS de Laguna Seca, A.C. dio la bienvenida a todos los presentes y la lectura de la Orden del Día manifestando que el entre los objetivos de la Primera Asamblea General Extraordinaria tal y como se desprende de la Orden del Día es la elección del Tesorero del Consejo Directivo del COTAS de Laguna Seca, A.C. para el periodo 2011-2014.-----

3.- NOMBRAMIENTO DE ESCRUTADORES



En desahogo del tercer punto.- Se procede a nombrar escrutadores para la elección del tesorero, nombramientos que recaen en los ciudadanos Ing. Miguel Ángel Sánchez Velázquez de la Subdirección de Consejos de Cuenca de la Dirección Local de la CONAGUA en Celaya, Gto., y el Ing. Alfredo Baltazar Tinoco Rivas de la Dirección de Gestión Social de la Comisión Estatal del Agua de Guanajuato por **UNANIMIDAD** de los presentes, en los términos del Estatuto Vigésimo Séptimo de la Escritura Pública de la Asociación Civil.-----

4.-LISTA DE PRESENTES Y DECLARACIÓN DEL QUÓRUM LEGAL

A continuación se procede con el cuarto punto.- Se da inicio con la lista de asistencia, manifestando el Presidente del Consejo Técnico de Aguas de Laguna Seca, Asociación Civil, MVZ. Manuel Gerardo García Rangel, que una vez que se llevó a cabo el cómputo de los asociados presentes a través de los escrutadores nombrados declaran que está presente el quórum legal requerido para sesionar válidamente por lo que se declara legalmente instalada la Primera Asamblea General Extraordinaria del Consejo Directivo del Consejo Técnico de Aguas de Laguna Seca, A.C., lo anterior con fundamento en lo dispuesto en el estatuto Vigésimo Sexto de la Escritura Pública de la Asociación.-----

5.- INFORME DE ACTIVIDADES DE ENERO-SEPTIEMBRE DE 2013

En relación al quinto punto.- La Lic. Lilia Esqueda Villalobos, Gerente del Consejo Técnico de Aguas de Laguna Seca, A.C., informa sobre el avance de las acciones realizadas durante el período enero-septiembre del presente año de acuerdo al Convenio de Colaboración con la CEA, señala respecto a la acción de **“Cobertura Vegetal”** en el sitio seleccionado del rancho “El Tepetate” en el cual se está desarrollando un proyecto integral de rescate y rehabilitación de los recursos naturales para revertir entre otros problemas la tala clandestina que está impactando en la desaparición de manantiales, en este sentido se está elaborando un estudio integral para identificar acciones de conservación, y así mismo este sitio también se ha seleccionado para la implementación del proyecto **“Promoción de tecnologías alternativas y capacitación a usuarios en materia de uso eficiente del agua en la zona piloto del acuífero de Laguna Seca”** que consiste en el diseño e implementación de una parcela demostrativa de riego por goteo donde se evaluarán indicadores de impacto como ahorro de agua, de energía eléctrica y económico en beneficio del productor, así como determinar la eficiencia de aplicación del agua a nivel de la parcela con el propósito de promover la tecnificación adecuado del sistema de riego por goteo mediante la capacitación in situ de usuarios de riego.

El MVZ. Enrique Alejandro Arvizu Valencia del Órgano de Control y Vigilancia del COTAS y Director General de Microcuencas de la SDAYR reconoce la importancia de esta actividad y comenta que en el área que él dirige se tiene contemplada la zona Noroeste para la conservación de cobertura vegetal y la recarga de mantos acuíferos entre otros, por lo que considera conveniente apoyar este proyecto.

Sobre el Programa **“Capacitación Asistencia Técnica en Riego”** La Lic. Lilia Esqueda comunica a los presentes que se han realizado trámites ante la SDAYR para contar con un técnico para la ejecución de este programa en la Cuenca de Laguna Seca para el próximo año.

En continuidad al programa de trabajo en comento del COTAS durante el presente año la Lic. Lilia Esqueda informa que se ha venido trabajando en la capacitación a los usuarios de aguas nacionales de los diversos usos como son usuarios con permisos de descargas, comités rurales de agua potable y productores agropecuarios de riego mediante talleres con la participación de la CONAGUA, el IEG, la CEA, la Secretaría de Salud y empresas proveedoras, etc.

Como parte del mismo Convenio se apoya a los municipios en la integración y tramitación ante la CONAGUA de expedientes de Administración del Agua, para tecnificación del riego, capacitación y asistencia en riego e instalación de medidores; se realizó el inventario de aprovechamientos subterráneos de uso agrícola y agua potable y los diagnósticos de los RAFAS (reactores anaeróbicos de flujo ascendente) mencionando al respecto que se identificaron RAFA'S que están sin operar como es el caso del que se localiza en el predio “Los Garval” en el municipio de Dr. Mora que aún no está conectado al sistema de drenaje, situación que se informó a la CEA, razón por la cual el Ing. Alfredo Tinoco de esta dependencia tomó nota de esta situación.-----

Se informó también de las siguientes actividades que el COTAS realiza en apoyo a la CONAGUA consideradas en el mismo Convenio de la CEA: apoyo a los municipios específicamente al de Dr. Mora con el trámite de redistribución de volumen del pozo “Los Amoles” para abastecer 11 comunidades, en el que la obra de perforación va a ser financiada por la CONAGUA, la CEA y el mismo municipio, requiriéndose únicamente la entrega del dictamen positivo por la Dirección Local de la CONAGUA para iniciar las obras respectivas y poder ejercer los recursos destinados a esta obra en el tiempo establecido, y no perder estos recursos, por lo que se hace la petición al Ing. Miguel Ángel Sánchez de la CONAGUA para dar seguimiento de este trámite en la Dirección Local de esta dependencia.

De igual manera el COTAS apoya a la Dirección Local de la CONAGUA en la verificación de avances en las obras de PROSSAPYS, las acciones anteriores se realizan en el marco del convenio entre el COTAS y la CONAGUA y por este apoyo recibe una aportación de recursos federales de \$130,000.00, habiendo recibido el COTAS una primera ministración de \$40,000.00 y conforme se avance en las actividades y los informes a la CONAGUA se realizarán las siguientes ministraciones, estos recursos se aplicarán en la adquisición de equipo para el desarrollo de las actividades del COTAS.

Se concede la palabra a los usuarios que tengan alguna inquietud referente a los trámites de Administración del Agua ante la Dirección Local de la CONAGUA y en uso de la voz el usuario Sergio Mejía externa su duda y preocupación en cuanto a sus volúmenes de agua que no está extrayendo y al ser considerados como sobrantes por parte de la CONAGUA se corre el riesgo de que se les reduzca los volúmenes concesionados, al respecto el Lic. Antonio Soto Gerente del Consejo Estatal



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Hidráulico, A.C. sugiere que ante este tipo de casos realizar el procedimiento del trámite 019 para solicitar la interrupción de la caducidad de volúmenes de agua no utilizados que incluye varios supuestos, pero se le comenta por parte del COTAS que este trámite se ha intentado realizar en el caso de algunos usuarios pero sin concretarse ante la CONAGUA ya que resulta para los usuarios muy complicado por los requisitos para comprobar la operación del pozo mediante facturas y/o insumos agrícolas ante la Dirección Local de la CONAGUA.

El Ing. Miguel Ángel Sánchez comenta que hay que analizar las formas para manejar la no caducidad de los volúmenes que no se están extrayendo.

El Sr. Abel Gutiérrez de la Vega comenta a los presentes su opinión sobre la factibilidad de negociar la explotación del agua de la planta de tratamiento de San José Iturbide en lugar de la subterránea, a lo que responde el Ing. Miguel Ángel Sánchez que dicha situación se tendría que analizar, ya que la planta de tratamiento pertenece al Municipio, de igual manera en el uso de la voz el Sr. Abel Gutiérrez se refiere al rezago de trámites de Administración del Agua de la CONAGUA, comentando que tuvo que ingresar sus trámites de prórroga ante la Dirección Local de la CONAGUA con la documentación que aún se encuentra en rezago.

El Sr. Alfredo Morales Flores del Ejido Santa Ana y Lobos Casco de la Hacienda, manifiesta su inquietud acerca de los volúmenes del pozo del Ejido que no se están extrayendo debido a las malas condiciones del pozo, a lo que el Ing. Miguel Ángel Sánchez les señala que ya que aún el Ejido cuenta con la totalidad del volumen concesionado se realice el trámite correspondiente para no perderlo.

Por otro lado los usuarios manifiestan el problema de los medidores SIEMENS adquiridos en el programa de apoyo de la CONAGUA y la SDA por medio del COTAS, y al tener que reemplazar la batería que es muy costosa, se cotiza en dólares y solamente existe un proveedor en el estado de Guanajuato, el Lic. Antonio Soto reconoce un sinnúmero de críticas hacia este tipo de medidores y sugiere buscar medidores más baratos y menciona que el Consejo Estatal Hidráulico, A.C. cuenta con un listado de medidores para poner a disposición del COTAS, ante estas inconformidades la Lic. Lilia Esqueda solicita al Lic. Antonio Soto que en su carácter de Gerente del Consejo Estatal Hidráulico, A.C. estas situaciones sean analizadas.

La Lic. Lilia Esqueda comenta que está por salir una nueva LAN y el Decreto para los títulos de concesión vencidos, para los usuarios que estén en estos supuestos pregunta al Lic. Antonio Soto que información tiene al respecto el Consejo Estatal Hidráulico, obteniendo como respuesta solamente que está en proceso y que la información con la que se cuenta es una propuesta que el COTAS de Baja California que se hizo llegar al Senado de la República, mismo documento que se remitió al COTAS de Laguna Seca.

Por parte del Lic. Antonio Soto da a conocer a los presentes que en la pasada Sesión del Consejo Directivo del Consejo Estatal Hidráulico, A.C., entre los puntos relevantes se acordó solicitar a la Dirección de la CONAGUA la capacitación al personal operativo de los COTAS para unificar criterios en los trámites de la CONAGUA la capacitación al personal operativo al Ing. Jorge Octavio Mijangos Borja, Director Local de la CONAGUA a través del Lic. Edgar Abelleira Cordero del área de Consejos de Cuernavaca y al área de Administración del Agua, además, que se está gestionando un listado de aprovechamientos próximos a vencer, por lo que la Lic. Lilia Esqueda hace la petición para que le hagan llegar al COTAS una copia de las peticiones, acordando el compromiso por parte del Lic. Antonio Soto de enviarla al COTAS, respecto a los temas a impartir en la capacitación a los COTAS, el Ing. Miguel Ángel Sánchez pide apoyo al personal de estos para hacer llegar los temas que se consideren necesarios, para estar en condiciones de seleccionar el personal idóneo.

El Sr. Abel Gutiérrez de la Vega pregunta sobre la forma de reportar a la CONAGUA los volúmenes extraídos ya que existe confusión si debe ser semestral o trimestral, y sugiere dar un aliciente al productor que realmente tiene ahorros para no perder los volúmenes, a lo que el Ing. Miguel Ángel Sánchez indica a los usuarios se de oportunidad a los COTAS de tener la capacitación para unificar el criterio de entrega.

Una vez terminado el informe de actividades de enero a septiembre del año 2013 del COTAS de Laguna Seca, A.C. se somete a consideración de los presentes la aprobación del mismo, siendo este aprobado por UNANIMIDAD de los presentes.

6.- ANÁLISIS Y APROBACIÓN DEL "MANUAL ORGANIZACIONAL DEL COTAS LAGUNA SECA, A.C."

En el sexto punto de la orden del Día sobre el Análisis y aprobación del "Manual Organizacional del COTAS de Laguna Seca, A.C." la Lic. Lilia Esqueda explica brevemente a los presentes el contenido del documento propuesto por el COTAS señalando los objetivos, aspectos sustanciales, los valores y estructura orgánica, en el rubro de selección y contratación del personal del equipo técnico de la gerencia, se expone a los presentes que por parte del equipo operativo del COTAS se propone que para ocupar los cargos de la Gerencia Técnica, además de las evaluaciones de conocimientos y psicométricos que se deben aplicar a los candidatos, se cuente con el apoyo del área de Recursos Humanos de la CEA para la aplicación de las evaluaciones psicométricas.

La Lic. Lilia Esqueda manifiesta que al contratarse al personal (técnico y asistentes, así como personal que se contrate para trabajos eventuales) por la estrecha relación que debe darse al interior del equipo técnico en beneficio del desarrollo y cumplimiento de los trabajos de la organización, se debe considerar la opinión del Gerente.



Se comenta además que para la contratación del personal técnico, además del perfil profesional que debe considerarse para los puestos, no debe contratarse a usuarios de aguas nacionales y productores agropecuarios, esto para lograr una relación de trabajo profesional sana, en el mismo punto de contratación del Manual en comento, tratándose de algún consejero o exconsejero, por este simple hecho será excluido de manera automática, como aspirante a algún puesto de la Gerencia, quedando igualmente excluidos de manera automática los parientes consanguíneos de los integrantes del Consejo Directivo o bien algún ex integrante de la Gerencia.

Propuesto lo anterior, surgen las dudas de los usuarios sobre las implicaciones en el caso de contratar a un consejero para ocupar algún cargo de la gerencia, dando respuesta la Lic. Lilia Esqueda que en este aspecto no se puede ser juez y parte, considera que se debe actuar a favor del acuifero.

Por su parte el Ing. Alfredo Tinoco comenta que para ocupar los cargos de la gerencia se requiere de profesionistas y que la CEA apoya a los COTAS con las convocatorias, aplicación de exámenes psicométricos, etc.

El Lic. Antonio Soto comenta que los contenidos del documento del Manual de Organización del COTAS queda supeditado a los acuerdos del Consejo Directivo ya que por estatutos es el único que puede decidir en la contratación, menciona ejemplos como la contratación de personal de los COTAS de León y Salvatierra con exámenes y previo análisis del Consejo Directivo. Se menciona que el Manual es un documento abierto a cambios y la idea es perfeccionarlo y adecuarlo al COTAS por lo que propone que el documento sea enviado a los Consejeros para sus comentarios, observaciones y validación, fijando como fecha límite para entrega de comentarios del Consejo Directivo el día 04 de octubre de 2013.

7.- MODIFICACIONES A LOS ESTATUTOS DEL ACTA CONSTITUTIVA DEL COTAS DE LAGUNA SECA, A.C., REFERENTES AL PATRIMONIO Y LIQUIDACIÓN DE LA ASOCIACIÓN PARA OBTENER LA CLAVE ÚNICA DE REGISTRO DE LAS ASOCIACIONES DE LA SOCIEDAD CIVIL (CLUNI).

Al abordar el séptimo punto de la orden del día sobre la Modificación a los Estatutos del Acta Constitutiva del COTAS de Laguna Seca, A.C. referentes al patrimonio y liquidación de la Asociación para obtener la Clave Única de Registro de las Asociaciones de la Sociedad Civil (CLUNI), con la finalidad de que la Organización como Asociación Civil pueda acceder a aportaciones de recursos provenientes de otras dependencias o instituciones que entre sus requisitos requieren de la CLUNI para otorgar recursos, acto seguido se somete a consideración de los presentes modificar el Estatuto Sexto referente a la conformación del patrimonio, en el que se establece que los recursos serán usados para los fines propios de su objeto social, la modificación consiste en el siguiente Estatuto:

Sexto.- El patrimonio de la asociación, estará formado por: a) Aportaciones en numerario o en especie de los asociados; b) Por las cuotas ordinarias y extraordinarias que se fijen a sus asociados; c) Por los donativos que reciba de instituciones o personas ajenas a la asociación, pudiendo ser de instituciones públicas del orden federal, estatal o municipal, así como de organizaciones nacionales e internacionales de interés público o privado; d) Los pagos que se le hagan por los servicios que preste, así como las multas que sean impuestas a sus asociados; y e) Los que resulten de las actividades que se deriven de su objeto social. El patrimonio de la asociación figurará en el inventario y en los libros de contabilidad que deberán llevarse a cargo específico del tesorero.-----

A partir de la fecha, deberá decir:

Sexto.- El patrimonio de la asociación, estará formado por: a) Aportaciones en numerario o en especie de los asociados; b) Por las cuotas ordinarias y extraordinarias que se fijen a sus asociados; c) Por los donativos que reciba de instituciones o personas ajenas a la asociación, pudiendo ser de instituciones públicas del orden federal, estatal o municipal, así como de organizaciones nacionales e internacionales de interés público o privado; d) Los pagos que se le hagan por los servicios que preste, así como las multas que sean impuestas a sus asociados; y e) Los que resulten de las actividades que se deriven de su objeto social. El patrimonio de la asociación figurará en el inventario y en los libros de contabilidad que deberán llevarse a cargo específico del tesorero.-----

----- Todos los ingresos que se obtengan por la asociación serán destinados exclusivamente a los fines para los cuales fue constituida, en virtud de que esta asociación no persigue objetivo de lucro.-----

----- El patrimonio de la asociación, incluyendo los apoyos y estímulos públicos que reciba, se destinarán exclusivamente a los fines propios de su objeto social, no pudiendo otorgar beneficios sobre el remanente distribuible a persona física alguna o a sus integrantes personas físicas o morales, salvo que se trate en este último caso de alguna persona moral autorizada para recibir donativos deducibles en términos de la Ley del impuesto sobre la renta o se trate de la remuneración de servicios efectivamente recibidos. La asociación no deberá distribuir entre sus asociados remanentes de los apoyos y estímulos públicos que reciba. Lo estipulado en la presente disposición es de carácter irrevocable.-----

De igual manera se propone la modificación del Estatuto Cuadragésimo Quinto referente a la disolución y liquidación donde dice:

Cuadragésimo Quinto: Una vez acordada la disolución de la asociación, esta entrará en estado de liquidación, nombrándose el número de liquidadores que determine la Asamblea de Asociados y una vez concluidas las operaciones de liquidación, los liquidadores convocarán a Asamblea General para que en ella se examine la aplicación que se dará al patrimonio, que será destinado a entidades autorizadas para recibir donativos deducibles en términos de lo dispuesto por el artículo 70-A de la Ley del Impuesto sobre la Renta.-----



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Y a partir de la fecha deberá decir:

Cuadragésimo Quinto: Una vez acordada la disolución de la asociación, esta entrará en estado de liquidación, nombrándose el número de liquidadores que determine la Asamblea de Asociados y una vez concluidas las operaciones de liquidación. Liquidada la asociación, la totalidad de su patrimonio, incluyendo los apoyos y estímulos públicos, se destinará a personas morales autorizadas para recibir donativos deducibles del impuesto sobre la renta, que se encuentren inscritas en el Registro Federal de las Organizaciones de la Sociedad Civil. Lo estipulado en la presente disposición es de carácter irrevocable.--

Propuesta que es analizada y aceptada por aprobado por UNANIMIDAD de los presentes.--

8.- PROPUESTA DE CANDIDATOS PARA OCUPAR EL CARGO DE TESORERO DEL COTAS DE LAGUNA SECA, A.C.

Dentro del Octavo punto de la orden del día referente a la Propuesta de Candidatos para ocupar el cargo de Tesorero del COTAS de Laguna Seca, A.C. para el periodo 2013 - 2014 en relación al análisis de candidatos se procede a abrir el espacio para propuestas a los presentes para elegir una persona idónea para ocupar el cargo, dada la relevancia del cargo y en general para el completo desarrollo de las funciones competentes a la tesorería de la Gerencia, que a juicio de los presentes reúna los requisitos para fungir como Tesorero, por lo que el MVZ. Manuel Gerardo García Rangel en uso de la voz propone designar al Sr. Victor Noel García Martínez, usuario del municipio de Doctor Mora, considerando su honorabilidad como persona y experiencia por haber desempeñado anteriormente el cargo de Tesorero y actualmente como vocal del COTAS, el Sr. Victor Noel García Martínez acepta la postulación y agradece a los presentes la confianza demostrada para desempeñar el cargo.

9. ELECCIÓN DEL TESORERO PARA OCUPAR EL CARGO PARA EL PERÍODO 2013-2014 DEL COTAS LAGUNA SECA, A.C.

A continuación en el análisis del Noveno punto de la orden del día sobre la Elección del Tesorero del COTAS de Laguna Seca, A.C. para el periodo 2013 - 2014 y en base a la propuesta anterior para ocupar el cargo, se procede a la elección del Tesorero de la Asociación, para lo cual la Asamblea acuerda por UNANIMIDAD designar al Sr. Victor Noel García Martínez como Tesorero de la Asociación Civil denominada Consejo Técnico de Aguas de Laguna Seca, A.C. durante el periodo 2013 - 2014 con todas las consecuencias legales y obligaciones que con ello conlleva, lo anterior, con fundamento en lo dispuesto por los estatutos vigésimo noveno, trigésimo tercero, trigésimo quinto, trigésimo noveno de la Escritura Constitutiva de la Asociación Civil.--

10.- DESIGNACIÓN DEL DELEGADO ESPECIAL PARA REALIZAR LOS TRÁMITES LEGALES NECESARIOS PARA LA PROTOCOLIZACIÓN E INSCRIPCIÓN DEL ACTA QUE SE LEVANTE PARA TAL EFECTO.

Dentro del décimo punto de la orden del día sobre la Designación del Delegado Especial para realizar los tramites legales necesarios para la protocolización e Inscripción del acta que se levante para debida constancia, se determina por la Asamblea designar a la C. Elizabeth Gretel Aguilar Valero en su carácter de Asistente Administrativo, por UNANIMIDAD de todos los presentes para realizar los tramites respectivos para su protocolización ante el Notario Público y el Registro Público de la Propiedad y el Comercio.--

11.- ASUNTOS GENERALES Y ACUERDOS.

Se procede con el punto Décimo primero sobre los asuntos generales y acuerdos en el que la Lic. Lilia Esqueda presenta a la Asamblea un listado de equipos (computadoras de escritorio, cámaras, teclados, cafetera, extintor, teléfonos, etc.) con la finalidad de darlos de baja del inventario del COTAS por encontrarse obsoleto su funcionamiento y que por sus características no es factible su reparación, siendo analizada y autorizada la baja estos equipos, sugiriendo por parte de los presentes que sean vendidos como basura electrónica en León, Irapuato o que se verifique en la Dirección de Ecología de San Luis de la Paz si los pueden recibir.

Por parte del Ing. Miguel Ángel Sánchez manifiesta que respecto a las actividades realizadas convenidas con la CONAGUA se disminuirán los recursos autorizados a los COTAS que no entreguen en tiempo y forma los informes mensuales y el remanente se redistribuirán entre los COTAS con buen desempeño.

En el uso de la voz el Lic. Antonio Soto felicita al COTAS de Laguna Seca, A.C. por el apoyo otorgado y la pronta respuesta por ejemplo en las bases de datos de los pozos entregadas.

El Lic. Antonio Soto solicita al COTAS el envío de los contratos del personal de la gerencia del año 2013, al respecto la Lic. Lilia Esqueda comenta al Consejo Directivo que éstos son elaborados anualmente por el COTAS y los que el CEH envía no están bien elaborados y se desconoce para que se requiere la entrega de dichos contratos.

12. CLAUSURA DE LA PRIMERA ASAMBLEA GENERAL EXTRAORDINARIA

En seguimiento al orden del día y sin haber más puntos que tratar, se declara clausurada la presente Asamblea General Extraordinaria, siendo las 14:00 horas del día 24 de septiembre de 2013, dos mil trece, firmando al calce los que en ella

intervinieron, así como lista de asistencia de asociados la cual forma parte integral del Acta para debida constancia, ratificando en todas y cada una de sus partes el contenido y alcances de la presente acta.-----

MVZ. MANUEL GERARDO GARCÍA RANGEL. PRESIDENTE. _____
L.I. JOSÉ ANTONIO DE LA VEGA ANDRADE SECRETARIO. _____
VICTOR NOEL GARCÍA MARTÍNEZ TESORERO. _____

VOCALES:

ABEL GUTIÉRREZ DE LA VEGA (PEQUEÑO PROPIETARIO SAN JOSÉ ITURBIDE) _____
MA. VANESSA GAMBA AGUILERA (PEQUEÑO PROPIETARIO, SAN LUIS DE LA PAZ Y SAN JOSÉ ITURBIDE) _____
JOSÉ JESÚS QUEVEDO MATA REPRESENTANTE DEL EJIDO MISIÓN DE CHICHIMECAS, SAN LUIS DE LA PAZ) _____
ALFREDO MORALES FLORES (REPRESENTANTE DEL EIDO SANTA ANA Y LOBOS CASCO DE LA HACIENDA, SAN LUIS DE LA PAZ) _____
MANUEL JUÁREZ HERNÁNDEZ (REPRESENTANTE DEL EJIDO TERREROS DE LA SABANA, DOLORES HIDALGO, GTO., C.I.N.) _____
GERARDO BRIZUELA OROZCO (PEQUEÑO PROPIETARIO SAN MIGUEL DE ALLENDE) _____
GUSTAVO VALTIERRA ROMERO (PEQUEÑO PROPIETARIO, DR. MORA) _____
SERGIO MEJÍA RIVERA (REPRESENTANTE DE LA C. MARÍA DE LA LUZ RIVERA RODRÍGUEZ PEQUEÑO PROPIETARIO, SAN JOSÉ ITURBIDE) _____

ÓRGANO DE CONTROL Y VIGILANCIA:

ING. LUIS ALMARÁZ RUÍZ (SAN JOSÉ ITURBIDE) _____
MVZ. ENRIQUE ALEJANDRO ARVIZU VALENCIA _____
LIC. CLAUDIO ORTÍZ OLVERA (SAN LUIS DE LA PAZ) _____
LIC. JULIÁN GAXIOLA FERNÁNDEZ (REPRESENTANTE C. MAURICIO ANTONIO SÁNCHEZ OSORNIO DOLORES HIDALGO, GTO., C.I.N.) _____
ING. AGUSTÍN MADRIGAL BULNES (SAN MIGUEL DE ALLENDE) _____

EXPUESTO LO ANTERIOR, SE OTORGAN LAS SIGUIENTES...

C L A U S U L A S :

PRIMERA.- LA C. ELIZABETH GRETTEL AGUILAR VALERO, EN SU CALIDAD DE DELEGADO ESPECIAL DE LA ASAMBLEA, OCURRE A ESTE ACTO EN REPRESENTACIÓN DE CONSEJO TÉCNICO DE AGUAS DE LAGUNA SECA, ASOCIACIÓN CIVIL Y DEJA PROTOCOLIZADA MEDIANTE EL PRESENTE INSTRUMENTO PUBLICO, EL ACTA DE ASAMBLEA GENERAL ORDINARIA ANTES TRANSCRITA.

SEGUNDA.- LOS GASTOS QUE ARROJE LA PRESENTE PROTOCOLIZACIÓN SERÁN POR CUENTA DE LA SOLICITANTE.

EXISTENCIA LEGAL DE LA ASOCIACION.

I.- DECLARA EL COMPARECIENTE QUE MEDIANTE ESCRITURA PÚBLICA NUMERO 8411 OCHO MIL CUATROCIENTOS ONCE DEL VOLUMEN XL CUADRAGESIMO DEL PROTOCOLO A CARGO DEL SEÑOR LICENCIADO JOSE LUIS ZUÑIGA ANGUIANO NOTARIO PUBLICO NUMERO 26 VEINTISEIS DEL PARTIDO JUDICIAL DE IRAPUATO, GUANAJUATO 07 SIETE DE DICIEMBRE DEL AÑO 1999 MIL NOVECIENTOS NOVENTA Y NUEVE SE CONSTITUYÓ: CONSEJO TÉCNICO DE AGUAS DE LAGUNA SECA, ASOCIACIÓN CIVIL Y CUYO PRIMER TESTIMONIO SE INSCRIBE BAJO LA PARTIDA NUMERO 24 VEINTICUATRO, FOLIOS 13 TRECE FRENTE DEL TOMO I UNO, DEL LIBRO DE LA SECCION DE SOCIEDADES Y ASOCIACIONES CIVILES Y CAPITULACIONES MATRIMONIALES, DE FECHA 14 CATORCE DE FEBRERO DEL AÑO 2000 DOS MIL EN EL REGISTRO PUBLICO DE LA PROPIEDAD EL PARTIDO JUDICIAL DE SAN LUIS DE LA PAZ, GUANAJUATO.-

EL PERMISO DE RELACIONES EXTERIORES SE EXPIDIÓ BAJO EL NUMERO 11003495, EXPEDIENTE 991103469 Y FOLIO 50471.

YO EL NOTARIO DOY FE Y CERTIFICO:

I.- DE QUE LO RELACIONADO E INSERTO CONCUERDA CON SUS ORIGINALES QUE TENGO A LA VISTA EN UN TOTAL DE 11 ONCE HOJAS TAMAÑO CARTA, QUE TENGO A LA VISTA IMPRESAS EN SU ANVERSO, A LOS QUE ME REMITO Y DE LA CUALES DEJO COPIA FOTOSTÁTICA PARA EL APÉNDICE DEL PROTOCOLO BAJO LA LETRA "A".-

II.- QUE LA COMPARECIENTE EN MI CONCEPTO TIENE PLENA CAPACIDAD LEGAL PARA CONTRATAR Y OBLIGARSE, PUES EN EL NO SE OBSERVA NINGUNA MANIFESTACIÓN DE INCAPACIDAD



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FÍSICA O MENTAL, QUE LES IMPIDA DISCERNIR Y NO TENGO NOTICIAS DE QUE ESTÉ SUJETA A INCAPAZIDAD CIVIL, QUIEN POR SUS GENERALES DIJO: SER ORIGINARIA Y VECINA LA CALLE DIVISION DEL NORTE NUMERO 6 SEIS, LOCALIDAD E MANANARES DE ESTE MUNICIPIO, CÓDIGO POSTAL 37913 NACIDA EL 15 QUINCE DE AGOSTO DEL AÑO 1983 MIL NOVECIENTOS OCHENTA Y TRES, EMPLEADA, Y SE IDENTIFICA CON CREDENCIAL PARA VOTAR, EXPEDIDA POR EL INSTITUTO FEDERAL ELECTOR, CLAVE 2580091907039.

III.- DE QUE LE DI LECTURA A ESTA DE LO AQUÍ ASENTADO.-

IV.- DE QUE MANIFESTÓ SU COMPRENSIÓN POR SABER SU ALCANCE, Y ACEPTA FIRMAR AL CALCE, INDICÁNDOLE ADEMÁS QUE DEBERÁ INSCRIBIR EL TESTIMONIO QUE AL EFECTO LE EXPIDE EN EL REGISTRO PUBLICO DE LA PROPIEDAD DEL PARTIDO, QUE EN CUMPLIMIENTO A LA LEY FEDERAL DE PROTECCIÓN DE DATOS PERSONALES EN POSESIÓN DE LOS PARTICULARES, SE HIZO DEL CONOCIMIENTO A LA COMPARECIENTE, LA PRIVACIDAD DE SUS DATOS CONTENIDOS EN LA PRESENTE ESCRITURA. CON LO ANTERIOR SE DIO POR TERMINADA EN EL LUGAR Y DIA DE SU FECHA AUTORIZANDO YO EL NOTARIO EN FORMA DEFINITIVA LA PRESENTE POR NO CARECER DE REQUISITO ALGUNO.- DOY FE.-

LIZABETH GRETTEL AGUILAR VALERO.- FIRMADO.- ILEGIBLE.- LA FIRMA ILEGIBLE DEL NOTARIO.- UN SELLO DE GOMA IMPRESO QUE SE LEE: LIC. JAVIER A. LÓPEZ MÁRQUEZ.- NOTARIA PUBLICA NO. 3.- SAN LUIS DE LA PAZ, GTO.- ESTADOS UNIDOS MEXICANOS.

ES PRIMER TESTIMONIO QUE SE TOMA DE SUS ORIGINALES QUE OBRAN EN EL PROTOCOLO DE MI CARGO Y APÉNDICE DEL MISMO BAJO NUMERO DE ESCRITURA 14159 CATORCE MIL CIENTO CINCUENTA Y NUEVE, EN 04 CUATRO FOJAS UTILES COTEJADAS Y CORREGIDAS CONFORME A LA LEY, SE EXPIDE PARA EL CONSEJO TÉCNICO DE AGUAS DE LAGUNA SECA, ASOCIACIÓN CIVIL, EN LA CIUDAD DE SAN LUIS DE LA PAZ, GUANAJUATO, A LOS 17 DIECISIETE DIAS DEL MES DE FEBRERO DEL AÑO 2014 DOS MIL CATORCE.- DOY FE.-

[Firma manuscrita]
 JAVIER ADOLFLO LOPEZ MARQUEZ
 ABOGADO Y NOTARIO PUBLICO

[Firma manuscrita]



**Annex B: Agreement of Cooperation between the CEAG
and
the Laguna-Seca COTAS
and
Annual Activity Programme**



Gobierno del Estado

Comisión Estatal del Agua

Convenio número.- CEAG/COTAS Laguna Seca/2012-011

Convenio de Colaboración Administrativa, que celebran por una parte el Ejecutivo del Estado de Guanajuato, a través de su Organismo Público Descentralizado denominado la Comisión Estatal del Agua de Guanajuato, representada en este acto por su Titular la **C. Ing. Angélica Casillas Martínez**, en su carácter de Secretaria Ejecutiva a quien en lo sucesivo se le denominará "**La Comisión**"; y por la otra parte, el **Consejo Técnico de Aguas de Laguna Seca, Asociación Civil**, representada en este acto por los **C.C. M.V.Z. Manuel García Rangel y C.P. Denny Berenice Robles Trejo** en su carácter de Presidente y Tesorero del Consejo Directivo respectivamente, a quienes en lo sucesivo se les denominará "**El COTAS**" al tenor de los siguientes antecedentes, declaraciones y subsecuentes cláusulas:

ANTECEDENTES

I.- El Gobierno del Estado de Guanajuato, consciente de la sobreexplotación de los acuíferos del Estado y de las graves consecuencias de no tomar medidas, ha buscado por conducto de la Comisión Estatal del Agua de Guanajuato, el involucramiento de la sociedad en la resolución de los problemas relacionados con el uso, explotación y aprovechamiento del agua, proponiendo formas para su manejo.

El Gobierno Estatal está convencido que la gestión del agua requiere de manera sustantiva la participación ordenada, sistemática e informada de todos los interesados (usuarios, sociedad e instituciones gubernamentales). Es de suma importancia el papel que deben desempeñar los usuarios en la revisión, análisis, propuestas de solución e instrumentación de acciones vinculadas con los asuntos y problemas del agua en el ámbito estatal. Sólo así puede concebirse una gestión del agua integral, compartida, eficiente, racional, equitativa y sustentable en un marco geográfico adecuado en el cual los propios usuarios sean los principales interesados

II.- Durante los años 1998 al 2000 los usuarios de aguas nacionales organizados en el Estado de Guanajuato, decidieron en forma colectiva unir sus voluntades y esfuerzos para crear los Consejos Técnicos de Aguas y el Consejo Estatal Hidráulico, para contribuir al mejoramiento de la gestión del agua.

III.- El 28 de noviembre de 1997, se celebró el Acta de Integración e Instalación del Consejo Técnico de Aguas Subterráneas (Cotas) del Acuífero de Laguna Seca, celebrada por los representantes de los Usuarios de Aguas Nacionales de las Agrupaciones y Organismos Sociales vinculados con el tema del Agua, con el apoyo del Gobierno Federal, a través de la Comisión Nacional del Agua, el Estado de Guanajuato y de los Municipios de Dolores Hidalgo, Doctor Mora, San Diego de la Unión, San José Iturbide, San Luis de la Paz y San Miguel Allende, Gto.

IV.- La Ley de Aguas para el Estado de Guanajuato, publicada en el Periódico Oficial del Gobierno del Estado de Guanajuato, el 26 de mayo del 2000 por la Quincuagésima Séptima Legislatura Constitucional del Estado Libre y Soberano de Guanajuato, establece en el Título Tercero, relativo a la Participación Social, la obligatoriedad para que el Ejecutivo Estatal y los Ayuntamientos promuevan la participación de los sectores social y privado para mejorar la distribución y el aprovechamiento del agua, conservar y controlar su calidad. Para ello estipula que deberán promover la constitución de instituciones de asesoría y consulta técnica mediante la integración del Consejo Estatal Hidráulico como un organismo de concertación y coordinación donde se invitará a participar a los Consejos Técnicos de Aguas.

V.- Para lograr los objetivos establecidos en el punto anterior, el 06 de marzo del 2000 se suscribió el contrato a través del cual se crea el Fideicomiso Público de Administración e Inversión número 150339 al que se le denominará "**Fideicomiso para la Participación Social en el Manejo del Agua en Guanajuato**"

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Gobierno del Estado

Comisión Estatal del Agua

Convenio número.- CEAG/COTAS Laguna Seca/2012-011

(FIPASMA) por el Gobierno del Estado de Guanajuato, en su carácter de Fideicomitente y por otra parte el Banco Internacional, S.A., Institución de Banca Múltiple, Grupo Financiero BITAL, en su carácter de Fiduciaria.

En este instrumento se ha determinado constituir un Fideicomiso al que se denominará "Fideicomiso para la Participación Social en el Manejo del Agua en Guanajuato", cuyo fin principal es conformar un patrimonio autónomo que permita al Fideicomitente realizar los objetivos del "Fondo para la Ejecución de Acciones, Planes, Programas y Proyectos para la consolidación técnica y administrativa de los Consejos Técnicos de Aguas, Gerencias Técnicas de Aguas y el Consejo Estatal Hidráulico" que se entenderán como proyectos para los efectos de este Fideicomiso, para la gestión social del agua cuya ejecución correrá a cargo de los Fideicomisarios, previa autorización del Comité Técnico del FIPASMA.

VI.- Asimismo para fortalecer su personalidad jurídica, las mencionadas asociaciones de usuarios se constituyeron como asociaciones civiles sin fines de lucro.

DECLARACIONES

I.- Declara el representante de "La Comisión" que:

Primera.- Es un Organismo Público Descentralizado de la Administración Pública Estatal con personalidad jurídica y patrimonio propios, de conformidad con el artículo 6 de la Ley de Aguas para el Estado de Guanajuato, según Decreto Legislativo número 245 publicado en el Periódico Oficial del Gobierno del Estado el 26 de mayo de 2000.

Segunda- Cuenta con atribuciones para celebrar el presente convenio o cualquier acto jurídico, de conformidad con lo dispuesto por los artículos 45, 47, 53 y 54 fracción IV de la Ley Orgánica del Poder Ejecutivo, 6, 7 fracción II y 11 fracción IV de la Ley de Aguas para el Estado de Guanajuato, 18 y 19 fracción IX del Reglamento Interior de la propia Comisión.

Tercera.- El Plan de Gobierno 2006-2012 establece dentro de su eje Comunidad Sustentable optimizar la disponibilidad y gestión del agua para sus diferentes usos, impulsando la estabilización de los acuíferos mediante la generación de esquemas que garanticen la participación corresponsable del sector social en la administración eficiente del recurso, impulsando la participación social en la gestión del agua a través de los organismos y consejos correspondientes con la finalidad de implementar 14 planes de manejo de cuencas y acuíferos, creando para ello mecanismos que permitan la autosuficiencia financiera de los Consejos Técnicos de Aguas y del Consejo Estatal Hidráulico.

Cuarta.- Tiene como por objeto regular la planeación, gestión, conservación y preservación de las aguas de jurisdicción estatal, para lograr un desarrollo sustentable y establecer las bases generales para que los Municipios presten el servicio público de agua potable, drenaje, alcantarillado, tratamiento y disposición de aguas residuales.

Además es la instancia normativa en el Estado en materia de agua, así como la responsable de establecer la planeación hidráulica y regular las acciones encaminadas a optimizar el uso de agua.

Quinta.- La participación social en el manejo del agua en México, se encuentra atribuida a la Comisión Nacional del Agua conjuntamente con los Gobiernos de los Estados, del Distrito Federal y de los Municipios, los Organismos de Cuenca, los Consejos de Cuenca y el Consejo Consultivo del Agua, quienes

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promoverán y facilitarán la participación de la sociedad en la planeación, toma de decisiones, ejecución, evaluación y vigilancia de la política nacional hídrica.

La Comisión Nacional del Agua tiene dentro de sus atribuciones, acreditar, promover y apoyar la organización de los usuarios para mejorar el aprovechamiento del agua y la preservación y control de su calidad, y para impulsar la participación de éstos a nivel nacional, estatal, regional o de cuenca en los términos de la misma Ley y sus Reglamentos.

Sexta.- El Comité Técnico del Fideicomiso para la participación Social en el Manejo del Agua en Guanajuato (FIPASMA) de conformidad con la Trigésima Octava Reunión Ordinaria, celebrada el 13 de enero del 2012, se aprueba que se solicite a la Comisión Estatal del Agua de Guanajuato la celebración del presente instrumento y se dé seguimiento a las actividades materia del mismo y valide los avances para que sean presentados en cada una de las sesiones del Comité Técnico.

Séptima.- El Gobierno del Estado ha autorizado a esta Entidad para el presente ejercicio presupuestal del 2012 al proyecto denominado **Proyecto K-160 Concertación Social para la Estabilización de los Acuíferos, Partida 7511 Inversiones en Fideicomisos del Poder Ejecutivo para gasto corriente**, la cantidad de **\$8'741,925.03 (Ocho millones setecientos cuarenta y un mil novecientos veinticinco pesos 03/100 M.N.)** incluido el impuesto al valor agregado, según oficio de autorización **SFA/017/2012** de la Secretaría de Finanzas y Administración.

Octava.- Para el mejor desarrollo y seguimiento de las acciones, se ha implementado un sistema denominado Sistema de Control de Acciones por lo que a las acciones materia del presente se les ha asignado el código de acción número SE-304-006-12.

Novena.- Conoce las normas y disposiciones legales aplicables a la materia del presente y en especial la Ley de Aguas Nacionales y sus Reglamentos vigentes, Ley de Aguas para el Estado de Guanajuato, los Términos de referencia para la continuación del Programa de Rescate y Manejo del Acuífero de Laguna Seca, El Plan de Trabajo Cotas 2012, y demás legislación y normas aplicables.

Décima.- Cuenta con el Registro Federal de Contribuyentes número CEA-911004212 expedido por la Secretaría de Hacienda y Crédito Público y señala como su domicilio para los efectos de este instrumento, el ubicado en Autopista Guanajuato – Silao km. 1, de la ciudad de Guanajuato, capital del Estado del mismo nombre.

II.- Declaran los representantes de "El COTAS" que:

Primera.- Es una Asociación Civil bajo la denominación de Consejo Técnico de Aguas de Laguna Seca, Asociación Civil, según se acredita con la escritura pública número 8411 ocho mil cuatrocientos once, del 07 siete de diciembre de 1999 mil novecientos noventa y nueve, pasada ante la fe del Notario Público número 26, Lic. José Luis Zúñiga Anguiano, de la ciudad de Irapuato, Guanajuato, e inscrita bajo el número 24 veinticuatro, folios 13 Fte., del Tomo I del libro de Sociedades y Asociaciones Civiles y Capitulaciones Patrimoniales del partido judicial de San Luis de la Paz, Guanajuato, el 14 catorce de febrero del 2000 dos mil.

Segunda.- La Asociación que representan es una organización de carácter social sin fines de lucro, con personalidad jurídica propia y tienen por objeto implementar programas de apoyo para los asociados, tendientes a hacer un uso eficiente del agua y su preservación en calidad y cantidad; realizar acciones encaminadas a la investigación científica o tecnológica, en busca de un uso eficiente del agua; coadyuvar con

las autoridades competentes en la formulación, seguimiento, evaluación y modificación de los planes y programas que en materia hidráulica estatal o regional se implanten; remitir a la autoridad estatal coordinadora de los recursos hídricos, información de manera periódica y necesaria para el mantenimiento de un sistema estatal de información hidráulica; formular y ejecutar programas y acciones para mejorar la planeación, administración, regulación y gestión de las aguas, entre otros, se rige por sus estatutos y por el Código Civil para el Estado de Guanajuato en el capítulo de asociaciones civiles.

Tercera.- El Presidente y Tesorero acuden a la suscripción del presente instrumento con las facultades establecidas en el instrumento jurídico a que se refiere la declaración primera anterior.

Cuarta.- Cuenta con los elementos humanos, recursos materiales y experiencia para desarrollar las actividades materia del presente instrumento.

Quinta.- Como se desprende del Acta de la Trigésima Octava Reunión Ordinaria del Comité Técnico del (FIPASMA) del 13 de enero del 2012, referente al Análisis, Discusión y Aprobación en su caso del Presupuesto para el ejercicio 2012, se dá a conocer a los Consejeros presentes que dadas las restricciones presupuestales, el importe asignado por el Gobierno del Estado, a través de la Comisión Estatal del Agua de Guanajuato para el presente ejercicio presupuestal 2012 al proyecto denominado "Concertación Social para la Estabilización de los Acuíferos", es por la cantidad de **\$8'741,925.03 (Ocho millones setecientos cuarenta y un mil novecientos veinticinco peso 03/100 M.N.)** importe que incluye los gastos de administración del Fideicomiso, siendo aprobado por unanimidad.

Dicho importe será depositado a la Fiduciaria por conducto de la Comisión Estatal del Agua de Guanajuato, dentro de los quince días siguientes a la celebración de la sesión citada.

Sexta.- Una vez hecho el análisis de las acciones a desarrollar por cada uno de los Fideicomisarios (COTAS y CEH) el Comité Técnico aprueba por unanimidad en la sesión citada en la declaración anterior, el apoyo específico para cada uno de los Fideicomisarios, solicitándole a "La Comisión" por ser la Entidad normativa en materia de agua en el Estado, que celebre convenios en apego al Plan de Trabajo con cada uno de los Consejos Técnicos de Aguas y con el Consejo Estatal Hidráulico.

Séptima.- El Comité Técnico del Fideicomiso para la participación Social en el Manejo del Agua en Guanajuato (FIPASMA) ha autorizado sea "El COTAS" quien realice las acciones que fomenten la participación social de los usuarios dentro del Consejo Técnico de Aguas, generando estrategias y actividades a favor del acuífero con el objetivo de ser una instancia de coordinación con las diferentes autoridades relacionadas con el sector para la solución de sus problemas y necesidades, buscando un uso eficiente del agua y su preservación en cantidad y calidad.

Octava.- Ha decidido suscribir el presente, con el propósito de consolidar las acciones que promuevan la participación de los sectores social y privado para mejorar la distribución y el aprovechamiento del agua, conservar y controlar su calidad, para alcanzar el desarrollo sostenible de los recursos hídricos.

Novena.- Conoce las normas y disposiciones legales aplicables a la materia del presente y en especial la Ley de Aguas Nacionales y sus Reglamentos vigentes, Ley de Aguas para el Estado de Guanajuato, los Términos de referencia para la continuación del Programa de Rescate y Manejo del Acuífero de Laguna Seca, El Plan de Trabajo Cotas 2012, y demás legislación y normas aplicables.

Décima.- Cuenta con el Registro Federal de Contribuyentes Número CTA 991208 DN9, expedido por la Secretaría de Hacienda y Crédito Público y señala como su domicilio para los efectos legales de este



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instrumento, el ubicado en la carretera San Luis de la Paz- Dolores Hidalgo Kilómetro 2.9, local 102 y 103 de la ciudad de San Luis de la Paz, Guanajuato C.P. 37900 teléfono 01 468 6882462 correo electrónico cotas_laguna_seca@yahoo.com.mx

Con base en las declaraciones anteriores, "La Comisión" y "El COTAS" convienen en otorgar las siguientes:

CLAUSULAS

Primera.- Objeto.- "El COTAS" conviene en fomentar una actitud social favorable del uso eficiente y conservación del agua mediante acciones que promuevan y busquen la estabilización del acuífero ubicado en el ámbito de influencia de "El COTAS", así como el cuidado y buen uso del recurso. Dichas acciones se encaminarán a lograr una disminución en las extracciones a través del **Programa de Rescate y Manejo del COTAS de Laguna Seca A.C. (2012)**

Segunda.- Importe.- Para la realización de las acciones materia del presente instrumento el Fideicomiso para la Participación Social en el Manejo del Agua en Guanajuato destinará la cantidad de **\$611,537.72 (Seiscientos once mil quinientos treinta y siete pesos 72/100 MN)** incluido el impuesto al valor agregado, con cargo al patrimonio del Fideicomiso número 150339 "Fideicomiso para la Participación Social en el Manejo del Agua en Guanajuato" FIPASMA.

El Comité Técnico del FIPASMA previo acuerdo podrá solicitar modificaciones en cuanto al importe descrito en el párrafo anterior atendiendo a los resultados obtenidos por "El COTAS".

Tercera.- Administración de Recursos.- Administración de Recursos.- Las partes convienen en que el Comité Técnico del FIPASMA, será la encargada de la administración y liberación de los recursos fideicomitidos para la ejecución de las acciones materia del presente Convenio, quien instruirá a la Fiduciaria para que realice los depósitos de la cantidad mencionada mediante ministraciones mensuales, en los términos del calendario de gasto mismo que firmado por las partes formará parte integrante del convenio original y contra la comprobación correspondiente.

La liberación de los recursos estará condicionada a la validación de los avances a cargo de "La Comisión" por conducto de la Dirección General de Gestión Social quien presentará los resultados en las sesiones del Comité Técnico del FIPASMA, para que sean aprobados o se realicen las observaciones pertinentes.

Las ministraciones se radicarán a "EL COTAS", contra la presentación de la factura o recibo que ampare dichas cantidades y reúna los requisitos fiscales y a favor del FIPASMA que cuenta con el registro Federal de Contribuyentes Fideicomiso HBMX 150339 expedido por la Secretaría de Hacienda y Crédito Público y señala como su domicilio para los efectos legales de este instrumento en boulevard Adolfo López Mateos No.1509 en la Ciudad de León, Guanajuato.

Cuarta.- Alcances.- Las acciones materia del presente instrumento, tienen como objetivo fomentar la participación activa y comprometida de los usuarios en la estabilización del acuífero, fomentar el cuidado y buen uso del recurso, así como estar encaminadas a lograr una disminución de las extracciones y con ello dar cumplimiento al Plan de Gobierno 2006-2012, que establece "como una de las premisas fundamentales la implementación de 14 planes de manejo de los acuíferos en el Estado". Para ello, en el presente ejercicio se desarrollarán las acciones consistentes en **Programa de Rescate y Manejo del COTAS de Laguna Seca A.C. (2012)** que integra las actividades siguientes:

Autopista Guanajuato-Silao Km.1
Guanajuato, Gto. C.P. 36251
Tels. (473) 735-18-00 con 12 líneas

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guanajuato.gob.mx/ceag

1.- Manejo Sustentable del Acuífero y Actualización de Inventarios

- a).- Seguimiento y Actualización de inventario
- b).- Programa Operativo de Manejo Sustentable del Acuífero (POMSA)
- c).- Gestión Colaborativa (zona piloto con usuarios)
- d).- Taller de formación con el personal operativo de los COTAS

2.- Actividades de Capacitación y Gestión

- a).- Capacitación a usuarios agrícolas.
- b).- Capacitación a uso público urbano.
- c).- Capacitación a otros usos.

3.- Fortalecimiento Institucional

- a).- Redacción de artículos relevantes y Entrega de informes Trimestrales de Acciones relevantes de la Organización.
- b).- Apoyos a "La Comisión" (captura de indicadores de cultura del agua en el SIECA y otros apoyos).

Y demás acciones detalladas en los términos de referencia y anexos con las condiciones, modalidades, requisitos y formatos que en los mismos se establecen, mismos que firmado por las partes forma parte integrante del presente instrumento.

Quinta.- Plazo de Ejecución.- "La Comisión" y "EL COTAS" convienen a que este último realizará las acciones por sí, debiendo de iniciarlos el 16 dieciséis del mes de enero del año 2012 y a concluirlos a más tardar el 15 quince del mes de diciembre del año 2012 dos mil doce.

Sexta.- Calidad de los Trabajos.- "EL COTAS" se compromete a realizar las actividades objeto de este convenio, de acuerdo a los lineamientos, normas y reglamentos federales, estatales y municipales aplicables al objeto del presente convenio a la legislación descrita en capítulo de declaraciones y en particular, a los lineamientos de contenido y presentación que fije "La Comisión", a los términos de referencia y al programa de actividades que se anexa y que debidamente firmados por las partes, forma parte integrante de este convenio así como a los acuerdos tomados en el Comité Técnico del FIPASMA.

Quando existan circunstancias que impidan la realización de actividades "EL COTAS" deberá notificar a "La Comisión" por escrito y con anticipación en caso de ser esto posible, la descripción de la problemática y los cursos de acción para resolverla. El Consejo Directivo de "EL COTAS" en coordinación con "La Comisión" acordarán lo procedente o si se considera conveniente someterlo a sesión del Comité Técnico del FIPASMA.

Séptima.- Desarrollo de Actividades.- "EL COTAS" se obliga a desarrollar su máxima capacidad y aplicar sus conocimientos para cumplir estrictamente las instrucciones que sobre la realización de las actividades le encomiende "La Comisión". Asimismo, "EL COTAS" está obligado a seguir las instrucciones que le determine "La Comisión" por conducto de la Dirección General de Gestión Social o por el personal que ésta designe.

Octava.- Confidencialidad.- Cuando una de las partes reciba información de la otra con la indicación de "confidencial o reservada", la parte receptora se abstendrá de publicarla o comunicarla a terceras personas sin previo consentimiento por escrito de la parte que la haya proporcionado.

Novena.- Ejecución.- "EL COTAS", bajo su responsabilidad, realizará el análisis de la información que sea necesaria para la elaboración del objeto mencionado en el presente instrumento.

Décima.- Derechos de Autor.- Las partes convienen que los datos o resultados de las actividades de este convenio de colaboración pertenecen de manera exclusiva a "La Comisión".

Décima Primera.- Terminación Anticipada.- Son causas de terminación anticipada del presente convenio, las que se señalan a continuación:

- i. La voluntad expresa de "La Comisión", quien deberá notificarlo por escrito a "El COTAS" con treinta días de anticipación. En este supuesto "La Comisión" deberá de cubrir a "El COTAS" las actividades realizadas hasta el día de la terminación.
- ii. La actualización de un caso fortuito o fuerza mayor que ponga fin o suspenda indefinidamente las actividades materia del presente convenio. Si dicho evento interrumpe temporalmente las actividades, las partes podrán acordar el diferimiento del plazo.
- iii. Cuando "El COTAS" no esté cumpliendo con el calendario de actividades o no se ajuste a los términos de referencia.
- iv. Si "El COTAS" no subsanara el incumplimiento de sus obligaciones en virtud de este convenio dentro de los treinta días siguientes a la recepción de la notificación al respecto, u otro plazo mayor que "La Comisión" pudiera haber aceptado posteriormente por escrito;
- v. Si "El COTAS", como consecuencia de un evento de fuerza mayor, no pudiera llevar a cabo una parte importante de las acciones durante un período de no menos de sesenta días.

Décima Segunda.- Responsabilidad.- "El COTAS" responderá de todos y cada uno de los daños y perjuicios que se ocasionen a terceras personas y a "La Comisión", con motivo de las actividades materia de este convenio, bien porque no se ajusten al cumplimiento de las presentes cláusulas contractuales o a las instrucciones que por escrito le diere "La Comisión" o cualquier representante autorizado por ésta, o bien, porque ignore o viole las bases, normas legales y reglamentos vigentes, tanto del Gobierno Federal como Estatal aplicables en la prestación de las actividades convenidas.

Décima Tercera.- Relaciones Laborales.- Las partes, como empresarias y patrones del personal que ocupen con motivo de las actividades materia de este convenio, serán las únicas responsables de las obligaciones derivadas de las disposiciones legales y demás ordenamientos en materia de trabajo y seguridad social, respecto de cada uno de sus trabajadores. "La Comisión" y "El COTAS" por lo mismo, convienen en sacar en paz y a salvo cada una a la otra, de cualquier reclamación que llegare a formular el personal de éstas.

Décima Cuarta.- Representantes de las Partes.- Las partes se obligan a designar un representante permanente para el seguimiento y cumplimiento del objeto de este convenio, quien podrá tomar decisiones; dicho representante podrá ser sustituido en cualquier tiempo, debiéndose notificar la sustitución a la otra parte para que surta efecto.

Décima Quinta.- FIPASMA.- "La Comisión" se obliga a dar a conocer los alcances del presente al Comité Técnico del FIPASMA con copia simple del mismo una vez suscrito por la partes, mismo que será a través de la Dirección General de Gestión Social.



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Décima Sexta.- Entrega-Recepción.- Al concluirse las actividades derivadas de este convenio "El COTAS" lo comunicará a "La Comisión", quien formulará el acta de entrega-recepción de las acciones, reservándose el derecho de hacer posteriores reclamaciones que estime conducentes.

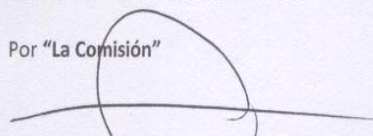
Décima Séptima.- Notificaciones.- "El COTAS" autoriza a "La Comisión" a que las notificaciones que esta última realice con motivo del presente convenio, aún siendo las personales podrán llevarse a cabo a través de correo certificado con acuse de recibo, vía fax ó por correo electrónico a la dirección señalada en la declaración décima de "El COTAS".

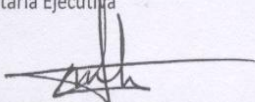
Décima Octava.- Interpretación y Tribunales Competentes.- Las controversias que se originen entre "La Comisión" y "El COTAS" con motivo de la interpretación, instrumentación o cumplimiento del presente, se resolverán de común acuerdo entre las partes y en el caso de conflictos que no se puedan resolver por este medio se sujetarán a la jurisdicción de los tribunales de la Ciudad de Guanajuato, renunciando al fuero que les pudiere corresponder en razón de su domicilio presente o futuro o por cualquier otra causa, aplicando en todo momento el Código Civil para el Estado de Guanajuato.

Décima Novena.- Vigencia.- Ambas partes manifiestan que el presente convenio entra en vigor a partir de la firma y estará vigente hasta el 15 de diciembre del 2012 dos mil doce, pudiendo ser revisado, modificado o adicionado de común acuerdo por las partes. Dichas modificaciones deberán constar por escrito y entrarán en vigor el día siguiente de su firma.

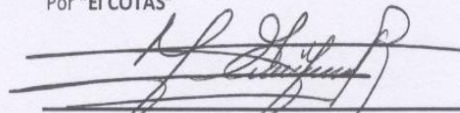
El presente convenio se firma en un ejemplar en la ciudad de Guanajuato, Gto., a los 16 dieciséis días del mes de enero del año 2012 dos mil doce

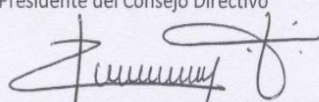
Por "La Comisión"


Ing. Angélica Casillas Martínez
Secretaria Ejecutiva


Ing. Aurelio Navarrete Ramírez
Director General de Gestión Social

Por "El COTAS"


M.V.Z. Manuel García Rangel
Presidente del Consejo Directivo


C.P. Denny Berenice Robles Trejo
Tesorero del Consejo Directivo

Annex C: Listing of Key Informants

CONAGUA and other government agencies:

- Mr Jorge Avelleyra, Manager of Social Participation, CONAGUA's State Office in Guanajuato
- Mr Guillermo Chávez, former Manager for the River Basin Councils and Auxiliary Bodies, CONAGUA Central Office
- Mr Guillermo Chavez Guillén, Manager of Groundwater Management, CONAGUA Central Office
- Mr Ramón Gámez, Technical Manager at the CONAGUA's State Office in Querétaro
- Mr Hector Garduño, former Manager for the REPDA, CONAGUA Central Office
- Mr Fernando González, former General Director of the CONAGUA Central Office
- Mr Vicente Guerrero, former State-Director CONAGUA State Office in Guanajuato
- Mr César Herrera, former Deputy Director for Planning and Programming, CONAGUA-Central Office
- Mr Cristobal Jaime, former General Director of the CONAGUA Central Office
- Mr José Alfredo Jimenez, Deputy Manager for the River Basin Councils and Auxiliary Bodies, CONAGUA Central Office
- Mr Sergio Lustanou, former State-Director of the CONAGUA's State Office in Querétaro
- Ms Lydia Mead, Deputy Manager for the River Basin Councils and Auxiliary Bodies, CONAGUA Central Office
- Mr Jorge Montoya, former Manager of Social Participation, CEAG-Guanajuato
- Dr Luis Rendón, Manager Irrigation Districts, CONAGUA-Central Office
- Mr Fernando Reyna, former Secretary to the General Director of the CONAGUA, CONAGUA Central Office
- Mr Emiliano Rodriguez, Deputy Director of Planning and Programming, CONAGUA-Central Office
- Mr Ricardo Sandoval, former General Director, CEAG-Guanajuato
- Mr Juan Gabriel Secovia, Director of Social Participation Promotion, CEAG, Guanajuato
- Mr Juan Carlos Valencia, former Manager for Planning and Programming, CONAGUA Central Office
- Ms Lourdes Villegas, Deputy Manager, Deputy Manager for Social Participation, CONAGUA' State Office in Querétaro

COTAS y Comité Estatal Hidráulico (CEH)

- Samuel Aguilera, President, Comité Estatal Hidráulico, Guanajuato
- Mr Deni Berenci, Treasurer, Laguna-Seca COTAS, Guanajuato
- Mr Alfonso Cobo, former President, Queretaro Valley COTAS, Queretaro
- Mr Salvador Charre, Technical Manager, Sierra Gorda COTAS, Guanajuato
- Mr Jesús Edgar, Technical Manager, Acambaro-Hitzeo COTAS, Guanajuato
- Mr Jose Antonio Urquiza, former Treasury, Queretaro Valley COTAS, Queretaro
- Mr Manuel Garcia, President, Laguna-Seca COTAS, Guanajuato
- Mr Wilfredo Gordillo, Member, Querétaro Valley COTAS
- Mr. Ignacio Cordoba Urrutia, President, Comondu, COTAS, Santo Domingo, Baja California
- Mr José Manuel Castillo, Technical Manager, Comondu COTAS, Santo Domingo, Baja California
- Ms Lilia Esqueda, Technical Secretary, Laguna-Seca COTAS, Guanajuato
- Mr Pedro Arellano, Technical Assistant, Laguna-Seca COTAS, Guanajuato
- Ms Gretel Aguilar, Technical Assistant, Laguna-Seca COTAS
- Mr Aurelio Navarrete, former President, Comité Estatal Hidráulico, Guanajuato
- Mr Tomñas Villarreal, President, Cuatro Ciénegas COTAS, Coahuila

IMTA

- Dr Sergio Vargas, former Social Participation Technical Officer, IMTA-Morelos
- MSc Denise Soares, Social Participation Technical Officer, IMTA-Morelos
- Roberto Romero, Social Participation Technical Officer, IMTA-Morelos
- Daniel Murillo, former Social Participation Technical Officer, IMTA-Morelos

International Organisations and Independent Consultant

- Dr Stephen Foster, GW-Mate, World Bank
- Dr. Luis Garcia, consultant World Bank
- MSc Eudardo Mestre, consultant World Bank

-Dr Salvador Peña, independent consultant

Academics:

-Dr María Luisa Torregrosa, Professor & Researcher, FLACSO-Mexico

-Dr Judith Dominguez, Professor & Researcher, COLMEX-Mexico

-Dr Karina Kloster, Professor & Researcher, UAM-Azcapotzalco

-Dr. José Luis Lezama, Professor & Researcher, COLMEX-Mexico

-Dr Blanca Jiménez, Profesor & Researcher, Faculty of Engineering, UNAM-Mexico

-Dr Boris Marañon, Professor & Researcher, Faculty of Social and Political Sciences, UNAM-Mexico

-Dr Diana Lopez, Researcher, Faculty of Social and Political Sciences, UNAM-Mexico