

New Environmental Citizenship in Mexico.

**An exploration of Temacapulin's resistance
to the Zapotillo dam**

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*I dedicate this work to all those
Latin Americans who fight for a better society*

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Summary

This thesis is about the new forms of environmental citizenship emerging in Mexico as the state makes the political and economic transition from authoritarianism to neoliberal forms of democracy. An environmental movement emerged in the 1990s and created environmental institutions, regulations and policies. Thereafter environmental social movements arose around diverse environmental issues. One of those issues has been large dam projects and environmental conflicts around them.

Theories of environmental citizenship have been framed by political science, based on the rights and duties of citizens who are members of a political unit, usually based on a democratic model. Empirical research has explored environmental citizenship in democratic and developed countries more than developing countries – where citizenship is shaped by different socio-economic processes. In Latin America, complex socio-political systems and different levels of democratic quality have shaped environmental citizenship. The contribution of this thesis is to research what environmental citizenship translates into in developing contexts, which are undergoing democratic transitions. It pursues, in particular, the case of Mexico which, despite the democratic advances of recent decades, still bears the historic imprint of its earlier authoritarianism.

An innovative array of experimental methods is used to approach environmental citizenship in order to capture the complexity of the transition in Mexico.

Temacapulín and the Zapotillo dam project are analysed at different levels and in different spaces, focusing on the federal constitution, government policies and institutions, civil society, communities, and within individual lives. The study indicates that environmental citizenship is emerging as political spaces open up in Mexico, yet these spaces are constrained by history and opportunity, reflecting quite different dimensions to how environmental citizenship is imagined in developed countries.

The Zapotillo project is a dam to be built on the Verde River, in Jalisco. The dam would principally supply water to the cities of León and Guadalajara, and to a smaller

extent to Los Altos, the region where the dam is located. The dam would displace three small Los Altos towns: Temacapulín (or Temaca), Acasico and Palmarejo. An environmental movement, led by the community of Temaca, has resisted being displaced for more than eight years and has organised a network of supporters from civil society. The environmental conflict produced by this resistance has obstructed the execution of the project and opened the possibility of its modification to avoid the flooding of the towns, or even the project's cancellation.

This case is analysed using data from the stakeholders in the conflict, i.e. the federal government bureau in charge of the dam project, and leaders and participants of the resistance movement, members of the community and external supporters. Data was obtained in interviews with key actors, a participatory research appraisal in the community and a focus group session with external supporters. The data was complemented with documentary research of official documents (e.g. laws, publications, public documents, press conferences and press releases), public information, stakeholder publications and journalistic coverage of the case. Discourse analysis was applied to study the strategies of different actors and the types of environmental discourses that are being used to frame environmental conflicts around dams in Mexico.

Declaration

I certify that the work presented in this thesis, entitled *New Environmental Citizenship in Mexico: An exploration of Temacapulín's resistance to the Zapotillo dam*, has not previously been submitted for a higher degree to any other university or institution.

I also certify that the thesis is an original piece of research performed between 2010 and 2014, and that it has been written by me. Any help and assistance I have received in my research work and the preparation of the thesis itself have been appropriately acknowledged.

In addition, I certify that the sources of information used, and the extent to which the work of others has been utilised, are acknowledged in the thesis.

The research presented in this thesis was approved by the Macquarie University Human Research Ethics Committee, approval number 5201200874 / 5 December 2012.



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Date: October 2014

Ethics approval letter

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Subject: Final Approval - Issues Addressed

Dear Dr Amati,

RE: Ethics project entitled: "Large dams and environmental conflict in Mexico. Community and social sector perspectives in case of El Zapotillo dam"
Ref number: 5201200874.

Thank you for your recent correspondence. Your response has addressed the issues raised by the Faculty of Science Human Research Ethics Sub-Committee and you may now commence your research.

This research meets the requirements of the National Statement on Ethical Conduct in Human Research (2007). The National Statement is available at the following web site:

http://www.nhmrc.gov.au/files_nhmrc/publications/attachments/e72.pdf.

The following personnel are authorised to conduct this research:

Dr Marco Amati
Fabiola Figueroa Neri
Assoc Prof Andrew McGregor

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Please note the following standard requirements of approval:

1. The approval of this project is conditional upon your continuing compliance with the National Statement on Ethical Conduct in Human Research (2007).
2. Approval will be for a period of five (5) years subject to the provision of annual reports.

Progress Report 1 Due: 5 December 2013
Progress Report 2 Due: 5 December 2014
Progress Report 3 Due: 5 December 2015
Progress Report 4 Due: 5 December 2016
Final Report Due: 5 December 2017

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If you will be applying for or have applied for internal or external funding for the above project it is your responsibility to provide the Macquarie University's Research Grants Management Assistant with a copy of this email as soon as possible. Internal and External funding agencies will not be informed that you have final approval for your project and funds will not be released until the Research Grants Management Assistant has received a copy of this email.

If you need to provide a hard copy letter of Final Approval to an external organisation as evidence that you have Final Approval, please do not hesitate to contact the Ethics Secretariat at the address below.

Please retain a copy of this email as this is your official notification of final ethics approval.

Yours sincerely,

Richie Howitt, Chair

Faculty of Science Human Research Ethics Sub-Committee Macquarie University NSW 2109

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I apologise if anyone is missing in this page. Thank you all.

Preface

In a certain way, my generation is the result of an experiment in Jalisco, Mexico. I studied high school in a country with an authoritarian political regimen that was struggling to keep its stability after the economic crises and the madness of the inflation of the 1980s. In the public education system there was still a semi-socialist (or populist) discourse. On the wall of the main entrance of the high school there was a mural with the hammer and the sickle and social messages that was in a common style for murals found on public buildings in Mexico.

In 1989 Berlin's wall fell. My university in those years was experiencing internal agitation produced by a group of young academics who were challenging the existent power structure concentrated in the hands of political 'godfathers' and an armed student's association that terrified the city with their questionable activities and plundering. In few years the new group overthrew this system and established a new one where academics and technocrats ruled the university (rather than the student association and criminal gangs). As a consequence, the University underwent a major reform aimed at improving academic quality and regional deconcentration, i.e. creating campuses in the state's regions in order to promote regional development and stop youth migration to Guadalajara city. The reformed University left socialist discourses behind and spoke instead of modernisation, innovation and internationalisation.

Framed by the University's reform, the Faculty of Political and International Affairs was created in 1991. In the past, the University had avoided having a school of political science, which contrasted with universities in Mexico City that had a long tradition in the area; there was a belief that political scientists could have challenged the system and thus the old regime in Jalisco was reluctant to train this profile of professionals. The new Faculty of Political and International Affairs was created to pursue the twin approaches of public policy and new public management; the objective was to create political analysts and practitioners. Among the academics who designed the curriculum was a political scientist renowned in Mexico, Luis F. Aguilar, an academic promoter of the field of public policy and neoliberal approaches, which

contrasted with the classical political theory and socialist-oriented approach of the Mexican (and Latin American) schools of political science.

I enrolled immediately in the new Faculty and was part of the first generation of Bachelors in Political Studies and Government. I was very lucky to be one of the first students who got a job in the area. It was a position in the advisory team of the Chancellor of the Social Sciences campus that was created as part of the University's reform. In the Faculty and University management the neoliberal approach of public policy mixed the pre-existing social-oriented approach in which our professors and administrative deans were educated. We worked enthusiastically believing that we were inaugurating a technocratic style of high education management that would produce positive social impacts.

Some years later I decided to move on from university management and specialise in public policy. I was accepted to undertake the Master in Government and Public Affairs degree in the Latin American Faculty of Social Sciences (FLACSO) in Mexico City, which was one of the country's top three programs in the area. I chose this university because it has a social-Latin American approach, whilst the other two took more neoliberal or economic approaches.¹ It was the end of the 1990s, the term of President Zedillo, who promoted a technocratic style in public administration. Many of our professors (in FLACSO and in the two other master programs) were part of the academic elite that was empowered with the leadership of specialised public bureaucracy and conducted reforms aimed at adopting best-practice models in public policy.

That was my first contact with environmental policies and where I decided to specialise in this field. My research was about 'environmental auditing in the manufacturing industry in Mexico'. Those were times of enthusiasm for economic environmental instruments in the young environmental public administration (the

¹ The Center for Research and Teaching in Economics (CIDE) and the Mexico's Autonomous Institute of Technology (ITAM).

Ministry of the Environment, the National Institute of Ecology and the Federal Attorney for Environmental Protection were less than 8 years old).

When I finished the master's program I went back to Guadalajara, and joined the Department of Public Policy in the University of Guadalajara as a permanent research professor. In 2004 I was invited to work as chief of advisors in the office of the Deputy General Chancellor of the University and my first task was to organise a multi-disciplinary group of scientists to conduct an assessment of a dam that was being proposed by the state government to provide water to Guadalajara City. This was the Arcediano dam project. The project was full of inconsistencies and it produced the opposition of environmental groups and the organisation of social movements against it. Our team of scientists played a relevant role in the public debate about the dam, which is analysed in some sections of this thesis.

In personal terms, the experience of Arcediano was decisive; it changed my perspective of environmental problems in Mexico: from the technocratic view I had learned in Mexico City to the social perspective and the view of the environmentally affected. The participation of the University through its group of scientist generated many expectations of social groups against the Arcediano dam, which felt very disappointed when the University suddenly withdrew from opposing the dam. Nevertheless, the connection between scientists, social groups and the affected people did not break down and many of us kept supporting the movement with our own resources (mainly technical knowledge and advice).

After resigning from the deputy general chancellery of the University I decided to follow a project of my own. With some other colleagues we created an independent advisory firm that specialised in training in public affairs; we designed and organised technical certification programs (diplomas) addressed to public servants and social stakeholders. Our most successful program was the Diploma in Environmental Management. We were surprised by the high demand for training in the environmental field; we received applicants from the public sector, civil society, media and academia who were looking not only for improving their qualifications but also for a better understanding of environmental issues.

By that time (2006-2007) the governments that followed the overthrow of the old authoritarian regime had proved to be inefficient, corrupt and in certain ways adverse to technocracy (in the sense of public policy based in technocratic knowledge). The country entered a period of violence and a deterioration in the rule of law. The environmental bureaucracy substituted environmental specialists by politicians in their top-level directors and decision-makers.

Many times I wondered if Mexico was really advancing or not in environmental regards. Environmental conflicts around large dam projects seemed to be increasing and developing in unheard of ways in Mexico; for instance, small vulnerable communities that could challenge, resist and even modify or cancel projects and thus challenge the apparatus of the state itself. The case of large dams was very confronting for me because I could understand the rationale of both sides of the conflict (governments as dam promoters and the affected supported by civil society) and I could see a very reduced space for negotiation.

I started the PhD with this background and, like many PhD students, a very ambitious idea about researching on environmental conflicts around large dams in Latin America, possibly from a perspective of corruption. The PhD years took me to the fields of Human Geography and Political Ecology where I defined my real concerns about the case: who are these people, those citizens who are emerging in a new era of global democracy and environmentalism that are beginning to transform environmental governance in Mexico (and Latin America)?

This research project springs from this background. My personal experience and personal interpretation of the recent history of Mexico are embedded throughout this work, despite trying to be as objective as possible. I am thankful for all the institutions, people and circumstances that allowed me to spend four years of reading, thinking and writing to better understand the case study and the broader context. I have a better understanding of new environmental citizenship in Mexico; this thesis is my effort to share this understanding effectively.

Abbreviations and Acronyms

		<i>In Spanish:</i>
ANAA	Environmentally Affected National Assembly	<i>Asamblea Nacional de Afectados Ambientales</i>
ASF	Superior Audit of the Federation office	<i>Auditoría Superior de la Federación</i>
CEA	State's Water Commission	<i>Comisión Estatal del Agua</i>
CFE	Federal Commission on Electricity	<i>Comisión Federal de Electricidad</i>
CIDE	Center for Research and Teaching in Economics	<i>Centro de Investigación y Docencia Económicas</i>
CISEN	Centre for Investigation and National Security	<i>Centro de Investigación y Seguridad Nacional</i>
COA	Collective of Lawyers	<i>Colectivo de Abogados</i>
CONABIO	National Commission for the Knowledge and Use of Biodiversity	<i>Comisión Nacional para el Conocimiento y Uso de la Biodiversidad</i>
CONAFOR	Forest National Commission	<i>Comisión Nacional Forestal</i>
CONAGUA	National Commission on Water	<i>Comisión Nacional del Agua</i>
CONANP	National Commission of Protected Natural Areas	<i>Comisión Nacional de Áreas Naturales Protegidas</i>
CONREDES	Regional Council for Sustainable Development	<i>Consejo Regional para el Desarrollo Sustentable</i>
DOF	Official Journal of the Federation	<i>Diario Oficial de la Federación</i>
EEEPa	Ecological Equilibrium and Environmental Protection General Act	<i>Ley General del Equilibrio Ecológico y Protección al Ambiente</i>
EEEPa	Ecological Equilibrium and Environmental Protection Act	<i>Ley General de Equilibrio Ecológico y Protección al Ambiente</i>
EIA	Environmental Impact Assessment	
EPA	United States' Environmental Protection Agency	
ETC-Group	Action Group on Erosion, Technology and Concentration	

FLACSO	Latin American Faculty of Social Sciences	<i>Facultad Latinoamericana de Ciencias Sociales</i>
IDEA	Institute of Environmental Law	<i>Instituto de Derecho Ambiental</i>
IMDEC	Mexican Institute for Community Development	<i>Instituto Mexicano de Desarrollo Comunitario</i>
INE	National Institute on Ecology	<i>Instituto Nacional de Ecología</i>
INEGI	National Institute of Statistics and Geography	<i>Instituto Nacional de Estadística y Geografía</i>
ITAM	Mexico's Autonomous Institute of Technology	<i>Instituto Tecnológico Autónomo de México</i>
ITESO	Western Institute of Technology and Higher Education	<i>Instituto Tecnológico y de Estudios Superiores de Occidente</i>
LA	Los Angeles, California	
MAPDER	Mexican Movement of People Affected by Dams and in Defence of Rivers	<i>Movimiento Mexicano de Afectados por las Presas y en Defensa de los Ríos</i>
MIA	Environmental Impact Statement	<i>Manifestación de Impacto Ambiental</i>
MXN	Mexican pesos	
NAFTA	North American Free Trade Agreement	
NGO	Non-governmental organisation	
NWA	National Waters Act	<i>Ley de Aguas Nacionales</i>
OECD	Organisation for Economic Co-operation and Development	
PAN	National Action Party	<i>Partido Acción Nacional</i>
PEMEX	Mexican Petroleum	<i>Petróleos Mexicanos</i>
PNR	National Revolutionary Party	<i>Partido Nacional Revolucionario</i>
PRA	Participatory Rural Appraisal	
PRD	Democratic Revolution Party	<i>Partido de la Revolución Democrática</i>
PRI	Institutional Revolutionary Party	<i>Partido Revolucionario Institucional</i>
PROFEPA	Federal Attorney for Environmental Protection	<i>Procuraduría Federal de Protección al Ambiente</i>
PVEM	Green Ecologist Party of Mexico	<i>Partido Verde Ecologista de México</i>

RDMN	Native Corn Defence Network	<i>Red en Defensa del Maíz Nativo</i>
REMA	Defence Network of the Affected by Mining	<i>Red Mexicana de Afectados por la Minería</i>
SD	Sustainable development	
SEGOB	Ministry of Governability	<i>Secretaría de Gobernación</i>
SEMARNAT	Ministry of the Environment and Natural Resources	<i>Secretaría del Medio Ambiente y Recursos Naturales</i>
SIAPA	Inter-municipal System of Potable Water and Sewage	<i>Sistema Intermunicipal de Agua Potable y Alcantarillado</i>
SRH	Ministry of Hydraulic Resources	<i>Secretaría de Recursos Hidráulicos</i>
UDG	University of Guadalajara	<i>Universidad de Guadalajara</i>
UK	United Kingdom	
UN	United Nations	
UNAM	National Autonomous University of Mexico	<i>Universidad Nacional Autónoma de México</i>
UNEP	United Nations' Environment Programme	
US	United States	
USD	United States' Dollar	

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Introduction

This thesis is about the new forms of environmental citizenship emerging in Mexico as the state makes the political and economic transition from authoritarianism to neoliberal forms of democracy.

In the last two decades, environmental social movements have flourished in Latin America and have produced new forms of citizenship and governance. These social phenomena have opened new fields of research on the environment, politics and development. This research explores the new forms of environmental citizenship that are emerging and their contribution to better environmental governance in Latin American countries with non-consolidated democracies. Mexico is used as the case study of a Latin American state that has moved towards more democratic regimes.

As will be discussed in Chapter 1 the analysis of environmental citizenship is relatively recent. It has followed analytical approaches which are posited by political theory on citizenship and are based on rights (the liberal approach) and duties (the republican approach) of citizens that are members of a political unit (the nation-state), usually based on a democratic model. Environmental citizenship has debated the understanding of the political unit to which environmental citizens belong in terms of scale; it has explored environmental issues as multi-scale phenomena (local, national, transnational and global). The analysis of environmental citizenship has tended to be normative and focused on ideal types of citizens for the environment.

Empirical research has explored environmental citizenship in democratic and developed countries much more than in developing countries like those in Latin America. More research is needed in the region in order to address the complex social political systems of Latin America and their different levels of democratic quality. In this regard, there is a gap in the research about how different levels of democratic quality shape environmental citizenship. In this thesis I explore environmental

citizenship in a post-authoritarian state that is commonly considered to have deficiencies in democratic quality.

This thesis offers further arguments about how Latin America challenges the contemporary theory of environmental citizenship. The contribution of this thesis is to research what environmental citizenship translates into in the developing context of Mexico, which still bears the historic imprint of authoritarianism.

The main objective is to analyse the new forms of emerging environmental citizenship and how this citizenship has been shaped by the democratic transition. As a main conclusion, this thesis indicates that environmental citizenship is emerging as political spaces open up in Mexico, yet it bears the constraints of history and opportunity, reflecting quite different dimensions to how environmental citizenship is imagined in developed countries.

I focus on the case of the Zapotillo dam and the community of Temacapulín. The Zapotillo project is a large dam to be built on the Verde River, in the state of Jalisco. The dam will principally supply water to the cities of León and Guadalajara and, to a smaller extent, to Los Altos, the region where the dam is located. The dam would displace three small towns in the Los Altos region: Temacapulín (also known as Temaca), Acasico and Palmarejo. A social-environmental movement, led by the community of Temaca, has resisted displacement for more than eight years and has organised a network of supporters from the civil society. The conflict produced by the social-environmental movement has obstructed the execution of the project and created the possibility for its modification to avoid the flooding of the towns, or even the project's cancellation.

In order to capture the complexity of the transition in Mexico, an innovative array of experimental methods are used to approach environmental citizenship. The case is analysed at different spaces or “sites of contestation”: the federal constitution, federal acts, government policies and institutions, civil society, communities, and within individual lives. At each site the evolution of contested discourses that shape environmental citizenship is explored in order to determine the differences and how

they interact with one another. The merit of this multi-site approach is that it tackles characteristics of Latin American societies that are not addressed by research approaches originally designed for developed countries. It also shows how environmental citizenship emerged through multi-scalar processes.

My research indicates there are three main characteristics that affect the analysis of environmental citizenship. The first characteristic is inequality. Latin American societies are highly inequitable in economic, social and cultural terms. Differences between classes are extreme. Consequently, there are different classes of citizens. Despite the universal rights and obligations granted by legislation, inequality hinders equal access to having those rights respected and produces regressive systems of obligations (e.g. taxation systems in which lower income classes pay proportionally more taxes than higher income classes). Thus, we could not speak of *the* environmental citizen of a certain Latin American country. We must think in terms of different kinds of environmental citizenship, according to different scales.

The second characteristic is the tension between democracy and authoritarianism. After gaining independence from Spain and Portugal in the 19th century, Latin American countries fluctuated between totalitarian regimes (e.g. dictators and military dictatorships) and democracy during the 20th century. There is more evidence of democratic transitions and regressions than of democratic consolidation. On one hand, Latin American countries have legitimate democratic discourses and sectors of educated population (e.g. middle class) that push for democracy. On the other, there is a political culture that favours the patriarchy (in the sense of public leaders/governors dominating over citizens), patronage and charismatic leadership. This political culture favours power concentration in dominant elites and consequential abuse of power. Tensions between democracy and authoritarian trends have generated a climate of antagonism between society and state. Environmental citizenship in a Latin American context cannot be framed outside this antagonism.

The third and last characteristic is complexity. Latin American societies are complex in multiple ways. They are highly heterogeneous societies, in social, cultural and

political regards. Informal rules are as (or sometimes more) important than formal rules; examples of this are legal systems that coexist with informal rules and democratic discourses that coexist with non-democratic practices. Social issues are interwoven with other conflicting social issues as well as political, economic and cultural issues. In other words, compared with developed countries, there is a wider multiplicity of actors, rules, and issues. Environmental citizenship in Latin America is interwoven with multiple social phenomena, not only the environment and citizenship.

This thesis is intended to frame new forms of environmental citizenship in Mexico in the context of these Latin American characteristics, i.e. inequality, tensions between democracy and authoritarianism, and complexity. I believe that the proposed methodology can potentially be replicated to analyse cases of environmental citizenship in other Latin American countries.

The choice of a research conducted in different sites, with multiple methods, entails one limitation. Big pictures may hide small details. Each of the analysed sites of contestation could have been examined by a PhD thesis in itself. However, I believe that a comprehensive approach is necessary to address environmental citizenship in Latin America, and to understand the linkages and dependencies and independencies between different spaces.

Potential limitations of this thesis arise from the personal bias of the author. My personal experience and participation in environmental social movements around dams and water conflicts is imprinted in this research. My personal experience is described in the Preface. It also explains my multidisciplinary knowledge of the case. Despite being framed in environmental politics, political ecology and human geography, this thesis draws from political theory, sociology, social psychology, law, history and engineering. A second potential bias results from my personal interpretation of historical, political and social events of Mexico's history. A third bias results from my position within the antagonistic relationship between state/government and society/citizens. Like many Latin American environmental researchers (especially those who analyse large dams) most are inclined to choose

the side of society against government. While my history shapes what follows it can also be seen as a strength, coming from someone internal rather than external to the conflicts being described.

The thesis is structured in seven chapters. Chapter 1 reviews the literature on environmental citizenship and explores the gap of knowledge regarding Latin American contexts, particularly in how non-consolidated democratic systems might influence the expression of environmental citizenship. Approaches from environmental political analysis are reviewed in order to frame how environmental citizenship may emerge in the contexts of authoritarianism, slow violence and environmental victimisation.

Chapter 2 introduces the case of study. The first section (2.1) makes an historical review of the origins of the authoritarian regime in Mexico and the political and social changes that produced the transition to democracy and neoliberalism. The second section (2.2) introduces the Zapotillo dam project in the context of a series of projects concerning water that have been attempted in the region. Previous projects all failed due to the opposition of environmental movements. The project and its main inconsistencies are summarised in Sections 2.3 and 2.4. Research methods are presented in the last section of the chapter (2.5).

The subsequent chapters (3-7) explore different forms of environmental citizenship that have emerged in each site of contestation. This thesis proposes that rather than thinking in terms of *the* Mexican environmental citizen, conceived in one scale, environmental citizenship is a multi-scalar phenomenon. Different spaces of action shape different forms of citizenship. Figure I.1 depicts the explored sites of contestation around which this research was structured.

Figure I.1. Sites of contestation and structure of the thesis

Site: Constitution

The emergence of environmentalism occurred within the transition to a post-authoritarian state

The constitution is analysed as the arena of public debate that legitimates environmental discourses and shapes national models of environmental citizenship

→ Chapter 3

Site: Federal acts and institutions

The adoption of environmental discourses and policies produced the creation of new bureaucracy and regulation.

In the case of water, different actors and discourses compete to influence legislation and institutions that frame environmental citizenship

→ Chapter 4

Site: Civil society and social movements

The political opening-up after the transition to a post-authoritarian state created new spaces for social organisation and action, within a democratic frame based on social and human rights for citizens.

A new climate of social effervescence has framed environmental social movements that work in different areas, such as supporting environmental victims. Forms of environmental citizenship have emerged from civil society and social actors, who, at the same time, contribute to shaping citizenship in the environmentally affected.

→ Chapter 5

Site: Community

Temacapulín is a representative case of an already marginalised community that has become an environmental victim of development projects like mega dams

The life of the community is disrupted. Local patterns of environmental citizenship and the community's relationships with nature are affected. The organisation of a social movement for the defence of the community also impacts the local forms of environmental citizenship

→ Chapter 6

Site: Environmental citizens

Different profiles of citizens gather around environmental movements. They possess diverse background and they experience multiple social-economic realities

Profiles of new environmental citizens and their contribution to further expanding environmental citizenship can be observed

→ Chapter 7

Source: Elaborated by the author

Chapter 1. The study of environmental citizenship in Latin America and post-authoritarian Mexico

The objective of this chapter is to introduce the theoretical discussion around environmental citizenship and the case study. The theoretical base that supports this thesis was built with different disciplinary fields. The research is about environmental citizenship, consequently it is primarily framed by political ecology theories that address citizenship and environmental politics. The analysis of the empirical data required the inclusion of theoretical bodies from other social sciences. The theoretical framework that furnished this research is reviewed along the thesis. Table 1.1 lists literature review sections within the thesis structure.

Table 1.1. Theoretical framework of the research

<i>Chapter</i>	<i>Section</i>	<i>Disciplinary fields</i>	<i>Contribution to the analysis</i>
1	1.1 1.2	Environmental citizenship	Primary theoretical framework
1	1.3	Environmental political analysis	Explores the relationship between environmental citizenship, democracy and conflict
3	3.1	Environmental discourse analysis	Frames diverse environmental and development discourses
6	6.1	Environmental victimisation	Approaches the case of study from the perspective of environmental justice. Contextualises the affected as victims of a systemic marginalisation
7	Intro.	Extraterritorial citizenship	Analyses the phenomenon of social movements claiming citizenship rights and obligation of remote communities

Source: Elaborated by the author

In what follows, section 1.1 provides a literature review on the study of environmental citizenship in general. Section 1.2 then transposes these ideas to the Latin American context and posits why new research approaches are necessary. Section 1.3 reviews insights from the literature on environmental political analysis that frame theoretical concepts that are used in this thesis to analyse the phenomenon of environmental citizenship in Latin America (and Mexico). I conclude by introducing my research aims and questions and providing an outline for the thesis.

1.1. State of the art in environmental citizenship

The topic of environmental citizenship is relatively new in academic debates. It emerged around two decades ago and has opened multiple possibilities for research. In general, environmental citizenship has drawn from political theory approaches based on the concept of citizenship, which refers to the rights and duties of citizens as members of a political unit (usually the nation-state) in democratic contexts. Literature from this perspective has explored what citizenship means in relationship to the environment. It has focused on the rights and duties of environmental citizens, on the ideal types of citizens and on environmental scales that challenge the nation-states as the political units of environmental citizenship. Empirical research has concentrated on environmental citizenship in developed countries with consolidated democracies more than in developing ones with different levels of democratic consolidation, which is the case of Latin America. The study of environmental citizenship in these countries challenges traditional analytic frames due to their complexity and different political and social characteristics.

This thesis contends that the analysis of environmental citizenship in Latin America should expand the research approach and include elements from environmental politics. Environmental citizenship in Latin America is interwoven with tensions between democracy and authoritarianism, contested discourses on the environment, state violence and victimisation. Thus, the theoretical framework should include not only the study of environmental citizenship *per se* but also: the relationship between

green states; democracy and authoritarianism; disagreement and conflict; alternative forms of knowledge; and environmental victimisation.

1.1.1. Fundamentals of environmental citizenship

When the idea of an environmental citizenship emerged in academia, scholars followed the steps of political science regarding citizenship theory. Since Aristotle, the concept of “citizens” of a *polis* has been debated constantly. The most fundamental definition of “citizenship” pertains to membership within a political community. In international order based on nation-states, citizens are members of a “sovereign state”. It is the state that grants this status of citizenship, so there is a “legal relationship between an individual and a political community (i.e., a state)” (Kurian et al. 2011, p.226).

Beyond the legal relationship between citizens and the state, the academic debate about citizenship has focused on the obligations and rights of citizens regarding their political communities. The theoretical approach that focuses on obligations has been called republican (and sometimes communitarian) and founded in the political thought of Aristotle, Machiavelli and Rousseau who highlighted the commitment and engagement of citizens in the achievement of a common good pursued by the state. The approach focused on rights is known as “liberal”; it proposes that citizens adhere to the state’s rule of law and are free from the state’s interference; it is a “status rather than an activity” (Kurian et al. 2011, p.227).

Flynn et al. (2008) argue that the analysis of environmental citizenship is part of a wider academic debate about modern citizenship, understood as the keystone of social integration and solidarity. Dobson, Valencia and Bell provided the first steps on analysing environmental citizenship using elements of political theory and citizenship (Dobson & Valencia-Sáiz 2006; Dobson & Bell 2006; Dobson & Valencia Sáiz 2005). Dobson (2005) proposed the existence of three approaches to analyse citizenship in relationship with the environment:

- a) *Environmental* citizenship, based on the liberal tradition of ‘environmental rights’;
- b) *Ecological* citizenship, based on the republican tradition that highlights environmental duties; and
- c) *Cosmopolitan* citizenship, that questions that the political unit (the community to which citizens belong) is the nation-state, since environmental issues are transnational.

Dobson (2005) considers that the first two (environmental and ecological citizenships) are complimentary, but ecological citizenship is more attractive, in intellectual terms (Dobson 2005). The cosmopolitan approach solves the problem of territoriality. Under a republican approach, the obligations of citizens are circumscribed to a political space, which is the nation-state jurisdiction. Nevertheless, environmental problems are non-territorial so that, instead of a political space, citizenship should be thought in terms of an “ecological obligation” space, which is the ecological footprint:

The obligation space of ecological citizenship is ‘produced’ by the activities of individuals and groups with the capacity to spread and impose themselves in a geographical (and) diachronic space. This produced space has no determinate size (it is not a city, or a state, and nor is it even ‘universal’) since its scope varies with the case (Dobson, 2005, p. 600).

In this approach, ecological citizenship is intrinsically anthropocentric. The space of ecological citizenship, says Dobson, is “*produced* by the metabolic and material relationship of individual people with their environment” (Dobson, 2005, p. 600).

With regard to the republican tradition of citizenship, Barry points out that citizenship is “something that has to be learned” in order to get citizens to comply with their duties. Citizens may be tempted to forget their duties to attend their self-interests, so the role of the state should be to promote and encourage “modes and practices of citizenship in the name of liberty (and sustainability) in ways that are legitimate and in keeping the wishes and interests of citizens” (Barry 2006, p.28).

Barry emphasises the role of the state in creating the necessary conditions of green citizenship, i.e. cultivation of green citizenly virtues and changes of behaviour.

Bell is critical of the liberal tradition of citizenship because it suggests that the environment is seen as “property”. He considers that we should think instead of the environment as the “provider of basic (human) needs” that are satisfied through the “exploitation of the physical environment”. Thus citizens are entitled to have environmental rights, that is, to have the right to satisfy their basic needs. Bell points out that citizens should have not only environmental rights *per se*, but also procedural rights to defend those rights. Thus ecological citizenship entails two more rights: the right to defend already existing environmental rights; and the right to pursue (campaign for) the establishment of new rights (Bell 2005).

Barry (2006) identifies two types: *environmental* citizenship and *sustainability* citizenship. Both concepts can be understood as the ends of a continuum of the general concept of *green* citizenship. Environmental acts of citizenship refer to actions or behaviours that benefit the environment. Sustainability citizenship is more “ambitious, multifaceted, and challenging” because it addresses the structural causes of “environmental degradation and other infringements of sustainable development such as human rights abuses or social injustice” (Barry, 2006, p. 24)

All these approaches have a normative perspective. They pose the question of what is the ideal kind of citizen to improve the environment. In other words, they speak of citizens’ virtues. Ecological citizenship’s virtues are aimed at “ensuring a just distribution of ecological space”, according to Dobson. Sympathy, care and compassion are secondary virtues (Dobson 2005).

From a “green ethics” perspective, Connelly considers that “Ecological citizenship is characterized not by rights but by the self-imposed duties of the citizen. Duties are commitments that require the free exercise of the virtues to identify and perform them” (Connelly 2006, p.63). The purpose of environmental virtues is the “realization

of environmental goods” rather than human wellbeing or happiness.¹ Virtues are social, not private. The “common good” pursued through the eco-virtues is the “sustainable common environmental good” which is to be developed and specified through deliberation. In fact, Connelly says, deliberation is one of the most important eco-virtues (Connelly 2006).

Virtues are settled dispositions to act in a certain way, they are not “merely habits, although they include elements of the habitual”, according to Connelly (Connelly 2006, p.53). Virtues have several characteristics:

- a) They are reflective because citizens are aware of them in a critical way (virtues are “critical dispositions”);
- b) They change constantly, in a constant state of flux; and
- c) They are “reliable” and “internally motivated” dispositions, so that virtues can be more effective than compliance in law or policy since citizens have appropriated them.

Nevertheless, virtues do not substitute law, regulation and economic incentives, which are necessary as “moral indicators” in society (and also to overcome the free-rider dilemma that challenges virtues). “Virtue is about doing those things that we should all do and yet that we can easily forget to do” (Connelly, 2006, p. 71) and, therefore, “encouragement” is crucial for a virtuous environmental citizenship.

Connelly speaks of virtues in general. However he mentions a list of particular virtues such as: faith, hope, charity, courage, wisdom, justice and moderation. He emphasizes frugality as a “cardinal” virtue together with care, patience, righteous indignation, accountability, asceticism, commitment, compassion, concern and cooperation. The opposite of virtues are vices; a virtue can be considered as “the mean between two extremes or vices” (Connelly, 2006, p. 53). An example of an eco-vice can be the “lack

¹ *Eudaemonia*, in Aristotelian terms.

of understanding” or “the simple contentment of want satisfaction, or from the pull of habit or the effortless sway of dominant political structures” (Connelly 2006, p.55).

1.1.2. Empirical research

Testing the normative approaches of environmental citizenship has been a focus of the scholars who are reviewed below. The common characteristic is the study of individuals to assess their attitudes and behaviours as environmental citizens. These works approach environmental citizenship in developed countries. I could not find any similar work for developing Latin American countries.

Flynn et al. surveyed the public attitudes to hydrogen energy in UK. Their results show that there are high levels of awareness and concern for environmental problems in the analysed population, but specific or technical knowledge on the subject is limited and there are few actions. In other words, there is a disconnection between environment and action; the authors observed contradictions, confusion and inconsistencies, e.g. between egoism and altruism in policy and between the “citizen and consumer role”. They found little evidence of a “perceived community of interests”. In terms of Dobson’s distinction between environmental and ecological citizenship, Flynn et al. concluded that “environmental citizenship remains latent and ecological citizenship has yet to be evolved” (Flynn et al. 2008, p.781).

Martinsson & Lundqvist (2010) examined ecological citizenship in terms of attitudes and behaviours at a national scale, in Sweden. Based on Dobson, they defined the “ecological citizen” in terms of green values, attitudes and practices aimed at limiting ecological footprints. They built a typology of citizens based on two variables: ecological practices (where “clean” is the positive value); and attitudes towards the environment (where “green” and “grey” were the possible values) (Martinsson & Lundqvist 2010).

The combination produces four groups: *believers*, with positive ecological practices and positive attitudes (clean and green); *coverts*, with positive ecological practices

and negative attitudes (clean and grey); *hypocrites*, with negative practices and positive attitudes (not-clean and green); and *diehards*, with negative practices and values (not-clean and grey). The analysed population comprised 3% believers, 11% coverts, 5% hypocrites and 81% diehards. Martinsson & Lundqvist conclude that “you can come out clean without turning green, but turning green may not suffice to come out clean” (Martinsson & Lundqvist 2010, p.521).

The research of Martinsson and Lundqvist revealed some socio-economic and political relationships. In socio-economic terms the following tend to have greener attitudes: a) women and younger people (as opposed to men and middle-aged); b) people with higher education and living in large-cities (as opposed to lower education and less urbanised areas); and c) people with higher incomes. In political terms, the data showed those with high degrees of interest in politics were greener and cleaner. Regarding the ideological self-placement, “citizens identifying themselves as ‘left’ are greener in terms of attitudes ... and behaviour ... than those placing themselves to the ‘right’ ” (Martinsson & Lundqvist, 2010, p. 529).

Huddart’s (2011) research was conducted at a local scale, in a neighbourhood in Edmonton, Canada. She focused on environmental commitment under a perspective of ecological citizenship and sustainable consumption, within a neighbourhood-based network. She analysed how a virtuous circle is created when the action of the network’s members (as citizens-consumers) leads to the adoption of daily sustainable practices both within and outside the network. In other words, she asserts, the involvement in informal social networks leads to citizenship activities; “when consumption (and non-consumption) serves as an entry point to other citizenly activity, a more potent form of resistance results, and one that contributes to cultural change at the local level” (Huddart-Kennedy, 2011, p. 848). Moreover, the author identified several mechanisms through which this phenomenon has place, such as: competition, knowledge and resource sharing, and inspiration.

1.1.3. *The polis of environmental citizenship, from a critical approach*

In the Greek model, citizens were members of the *polis* that literally means the “city”. In political theory, however, *polis* means the “political unit” to which the citizens belong. In terms of environmental citizenship, some scholars have studied the role of the *polis* in the sense of government and governance.

Governments, according to MacGregor (2006), have found in environmental citizenship a solution to environmental problems. They demand community-based solutions or self-regulation, for instance, assuming a “stewardship” relationship. In this context, education becomes a key tool because it places “the onus on individuals, whether as citizens or consumers, to become more educated about environmental issues ... [suggesting] that it is uneducated and *irresponsible* individuals—rather than unsustainable and unjust social and economic relationships—who are the root cause of environmental crisis” (MacGregor 2006, p.115). Education is a disciplinary strategy aimed at the individual’s internalisation of a “set of rules for behaviour” to achieve a self-governing system and thus “minimal state intervention”. Education is, under this approach, a way to “green-wash” the resistance to green regulations made by neoliberalism.

MacGregor (2006), whose work was primarily concerned with feminism, posits the subject of inequality. To be a “good environmental citizen” requires having free time and a minimum level of social and economic security. The expectations of “good environmental citizenship” are a burden for citizens because it supposes their “commitment to participatory democracy”. This situation has generated a paradox where it is assumed that “people will accept the inevitable increase in time and effort created by green lifestyle practices, and will still have time for citizenly pursuits” (MacGregor 2006, p.107).

Aslin and Lockie (2013) address the idea of ‘green-washing’. They observe that there is a contradiction in the use of terms like “citizen”, “participation”, “public”, “community”, “engagement” and “involvement”, because governments and corporations use them in order to add a “veneer of environmental respectability” to

their actions (instead of making significant reforms) or to take the environmental responsibilities back to the citizens (Aslin & Lockie 2013).

Engagement is the key concept for environmental citizenship, according to Aslin & Lockie. Two significant meanings of it have been developed. The first is about communication and relationship-building, and refers to an effective (beyond the legal minimums) consultation process with the affected through policy or development decisions. The second significant meaning supposes that citizens are not only “passive consumers of ideas and information”; instead, they play an active and critical role.

In other words, engagement is about involving citizens in the processes of governance. Engaged citizenship is a “big idea” that “encapsulates many issues about democracy and democratic action, the nature of governance systems and ideologies, consumer society and how people and ecologies are connected through global commodity chains, and how we can modernise our economies and societies to take better account of ecological realities” (Aslin & Lockie 2013, p.15).

1.1.4. Globalisation of the environment and citizenship

The global dimension of the environment challenges classic citizenship theory. As discussed in the previous section, one of the main elements of citizenship in political science is that nation-states are the political unit or space to which citizens belong. But many environmental problems are transnational.

Valencia (2005) suggests that ecological citizenship should be regarded as “under construction”. For Valencia it is a concept that derives from political ecology and is linked to democracy and political globalisation. He considers that the role of the nation-state model as “unifying political community and shaping citizenship” has been eroded with the emergence of global politics. The nation state has lost its centrality in the political community; particularly in environmental problems since they exist in other scales, such as the global (Valencia Sáiz 2005). This is the cosmopolitan approach, where citizenship plays a role as a “mediator concept”; it is

“both a principle for dialogue in a diverse political community and an essential starting point for global governance” (Valencia Sáiz, 2005, p. 168).

The work of Szerszynski focuses on the global belonging of environmental citizens, from a perspective of “visibility”. He posits that environmental citizenship has four visual dimensions: mutual visibility between citizen and citizen; mutual visibility between citizen and state; the use of visual symbols to signify membership; and a sense of communion, the membership to an audience, a “community of cowcatchers” (Szerszynski 2006).

Szerszynski uses three tropes about visibility in the global belonging of environmental citizenship. The first one is *blindness*, in the Rawlsian sense of justice, where the metaphor of a blind statue is used, i.e. justice that works without seeing which citizens are involved, works without prejudice against anyone. In terms of environmental justice, the metaphor implies environmental citizens who act without knowing “where they were to live” and, according to that blindness, make arrangements concerning environmental “goods” and “bads”. Blindness in environmental justice leads to equality and encourages citizens to appreciate and look after their local environment.

The second trope is *distance*. To be a global environmental citizen, individuals must cope with distance issues. The circulation of information provides a “global imagery”, the citizens’ feeling of belonging to an “imagined community” comprises people and places they personally have not met or visited. Szerszynski quotes Ingold who proposes two ways of conceiving the environment: the first as *globes*, perceived from without, and the second as *spheres*, from within. Modernity has produced the shift from spheres to globes but modernity has also distorted the relationship with nature. The position of individuals is outside the world. Szerszynski asserts: “If Ingold is right, then perhaps environmental citizenship, if it is conceived in terms of taking a global perspective on the world, positions us outside the world, and alienates us from it” (Szerszynski 2006, p.83).

The third and last trope is *movement*. Szerszynski uses Bauman's concept of "liquid modernity", understood as the "accelerated movement of people, images, ideas, products and information across local and national borders—a movement that is not only materially but also culturally important for the way it alters the nature of place" (Szerszynski, 2006, p. 83). Movement has produced a "global village", where people "travel" in three ways: physically (common in Western societies as a 'way of life'); imaginatively, through the global imagery; and virtually, through information and communication technologies that help to transcend geographic distance.

The conclusion of Szerszynski is: "It is in the *dialectic* between blindness and sight, between distance and proximity, between mobility and rest, that the possibility of an enlarged notion of citizenship lies" (Szerszynski 2006).

From a sociological perspective, Luque (2006) points out the difference between the real world and the "imagined community" we believe we live in. He considers that environmental citizenship encompasses "the capacity of people around the world to inhabit an imagined community where global issues – to which there is always an environmental dimension – are, first of all, visible in their interconnectedness, and secondly, in part as a consequence of this experience of sharedness, amenable to common regulations" (Luque, 2006, pp. 56-57). He describes environmental citizens that engage the whole community in a fragile *we*; citizens who are committed to act against what is considered as unjust.

Luque admits that, surprisingly to him, "Inhabitants of that politically crucial imagined community of the public sphere enter that hazy territory (which is even more blurry as a global entity) when they accomplish that rare, fragile feat of temporarily becoming a citizen, the forger of a public" (Luque, 2006, p. 65).

1.2. The study of environmental citizenship in Latin America.

Environmental citizenship is a contested and complex phenomena in Latin America. Scholars argue that environmental citizenship in the region must widen its scope to

capture the complexity and particularities of the region (e.g. Gudynas, 2009; Latta, 2010, 2014; Latta & Wittman, 2010, 2014). In this section I explore some key research on environmental citizenship in the Latin American context.

Gudynas (2009) writes that environmental citizenship in Latin America has mainly been approached from the perspective of rights and in terms of belonging to a community. Environmental citizenship has been used in the region for demanding greater participation in environmental management and to access public information regarding the environment. Approaching the environmental dimension of citizenship has generated political and social resistance in Latin America and generated what Gudynas calls “incomplete citizenships”. In contrast neoliberal democratic models have posited markets as central actors and weakened citizenship claims. It has constrained third generation rights, such as environmental rights, contributing to environmental conflicts. Marginalised social groups have been the most affected by these incomplete rights in Latin America where tensions between development and environment have contributed to a deterioration of environmental rights (Gudynas (2009).

Latta & Wittman (2012) assert that research on environmental citizenship in Latin America is incipient and faces several challenges. The authors consider that traditional frames for analysing environmental citizenship might not suffice to capture the Latin American complexity that is a result of its history, ethnicity and socio-political configuration (Latta & Wittman 2012).

According to Latta & Wittman, there are at least three limitations to the current approaches to environmental citizenship, which make it difficult to apply the concept to Latin America:

- 1) Environmental citizenship theory has tended to adopt a normative perspective. Consequently, the theory has paid little attention to the “lived experience of ‘actually existing’ citizenly agency vis-à-vis environmental questions” (Latta & Wittman 2012, p.5);

- 2) The republican approach based on obligations depoliticises ecological issues because it focuses on the individual's behaviour rather than political debate and collective struggle; and
- 3) Showing a geographic bias, scholarship has examined the "global north" more than the "global south" (Latta & Wittman 2012, p.5).

Social inequality, lack of accountability, a climate of impunity and other phenomena in Latin America certainly interfere with environmental citizenship. Latin America is a region characterised by its social complexity. Latta & Wittman (2010) consider that Latin America's study of environmental citizenship must acknowledge its cultural diversity, shared histories of conflict, and varied indigenous cosmovisions derived from diverse ecological and territorial contexts. The complexity of social ecological relations in Latin America is related to particularities that derive from:

...political cultures informed by a range of influences, including European traditions, such as republicanism, liberalism, and Marxism; regional social and political traditions, such as the Bolivarian revolution and Freire's pedagogy of the oppressed; and finally a long heritage of indigenous socio-political institutions, from the Mayan *usos y costumbres* [customs and informal rules] to the Mapuche *admapu* [law]. Each of these various political traditions is embedded in specific visions of socio-ecological relations, from liberalism's institutions of private property to the Quichua's social organization of cultivation linked to reverence for the *pachamama* [earth/time goddess]. These political ecological inheritances are constantly being reinvented and re-combined, as in the Zapatista autonomous municipalities of Mexico, the Brazilian landless movement and the indigenous recuperation of the state in Bolivia (Latta & Wittman, 2010, p.109).

Citizenship, identities, institutions and practices, according to Latta & Wittman, are inextricably associated with social and political struggles. Environmental citizenship has been shaped by economic and ecological survival struggles. For this reason, environmental citizenship should not be limited to rights and duties approaches. It should be understood as:

a dynamic space of struggle, within which rights can be claimed. In other words, even as nature is politicized by citizens enacting their political and ecological subjectivities, such enactment in turn involves an active reshaping of those subjectivities” (Latta & Wittman, 2012, p. 6).

The authors identified three main lines of environmental citizenship research in the case of Latin America. The first is the co-construction of nature and social subjectivity, where instead of thinking that citizenship should be greened, they posit “that nature and socio-political subjectivity are mutually constitutive nodes in the complex networked assemblages of actors, discourses and biophysical flows” (Latta & Wittman, 2012, p. 7).

The second line of research is about the dynamics of marginalisation and struggles for recognition and justice. Latta & Wittman use the concept of “environmental marginality”, which means “that social exclusion and exploitation is invariably embedded in geographically specific power relations that shape access to and exert control over environmental ‘goods’ as well as differential exposures to the ‘bads’ of environmental degradation and risk” (Latta & Wittman, 2012, p. 10). These authors suggest that the analysis of environmental justice in Latin American region should be approached from ecological post-colonialism. Environmental social movements have adopted “de-colonialization of citizenship discourses and the re-valorization of subordinate knowledges” (Latta & Wittman, 2010, p. 111).

The third line explores the relationship between citizens, the state and environmental governance. Globalisation has incorporated multiple new stakeholders in a multi-scalar institutional landscape. Although the state is still the predominant actor in environmental governance, new spaces of deliberation and management have been opened and have challenged the state’s authority. A reconceptualization of territory and sovereignty has also affected the role of the state. Another factor of change has been “innovation and contradiction within and between different arms of the state [that] can sometimes open unexpected opportunities for insurgent forms of citizenship practice” (Latta & Wittman 2012, p.13).

The researchers point out that top-down policy discourses where citizenship is explored through rights and obligations are linked to socio-political conflicts that reshape citizenship, in a bottom-up direction (Latta & Wittman 2010). Latta (2014) uses the term of “insurgent citizenship” to capture the political moments when citizenship transforms human collectives. According to Latta, the analysis of contemporary environmental movements should explore that transformative potential of citizenship and identify “impulses toward citizen agency as they rise from assemblages of human and nonhuman elements pushing back against domination, exploitation and marginalization” (Latta, 2014, p. 324).

Research on environmental citizenship in Latin America has explored multiple cases of social struggle that one way or another has contributed to the recognition of environmental rights and has created or expanded spaces for citizenship. The collection of Latin American cases of study edited by Latta & Whittman (2012) is an example of scholarship in the region. Most researchers argue environmental citizenship in Latin America is under construction through environmental social movements. In her research about Guatemala’s Maya Biosphere Reserve, Sundberg (2012) suggests that citizenship should be approached as a social practice that is enacted by individuals that “negotiate and contest legal frameworks and daily practices in their efforts to exercise rights and responsibilities as well as belonging” (Sundberg, 2012, p. 98). She highlights the importance of focusing the analysis on “the *sites* of citizenship struggles, as practical hurdles to citizenship occur in daily practices at multiple geographic scales: the home, conservation projects and environmental institutions” (Sundberg, 2012, p. 107).

Citizenship as a concept is interwoven with democratic systems. Originally, the *polis* was the city-state that worked in a democratic way. In contemporary political theory, citizens are members of a democratic political unit. Kurian et al. point out that:

For centuries, there have been debates about the distinction between citizens and subjects. Today the term *citizenship* is generally accepted in this political sense as restricted to individuals who are citizens of democratic regimes, in which they are considered to be active participants in their own state’s political process. Essentially, while a person may be a legal

citizen in a nondemocratic state retaining the proper passport proclaiming such legal citizenship, these citizens do not typically have the degree of influence or powers to exact political change within their states as practiced in democracies (Kurian et al. 2011, p.227).

If we apply this principle to environmental citizenship, we must question if it is possible to speak of “environmental citizenship” in non-democratic regimes. What about semi-democratic regimes or regimes with low democratic quality? This is the case of many countries in Latin America.

With the exception of Cuba, Latin American countries² are formally democratic. This formal nature is what political scientists call “electoral democracy”; in other words, a country is considered democratic if the government is elected by the vote of its citizens. “Electoral democracy” is different from “democratic quality”, which supposes that rather than “democracy” (an ideal concept) we should speak of “democracies” (or pluralistic regimes) and observe the performance of the different features of an ideal democratic system. There are different ways of measuring democratic quality. For instance, the Democracy Ranking Association uses an index based on political rights, civil liberties, the gender gap, press freedom, corruption perceptions and regular changes of government.³ Figure 1.1 reproduces the 2013 global ranking map published by this organization.

Democracy in Latin America has had a complex development. It has swung from dictatorships to democracies and everything in the middle. Smith (2004) considers that democracy in Latin America has lived “turbulent times”; it has been seen as “fragile, temporal and superficial in its contents”, but in the last decades it seems to have put its roots down in the region (Smith 2004, p.189). According to the Index of Democratic Development for Latin America made by the Konrad Adenauer Foundation and the Polilat firm (IDD-LAT 2013), the state of development of democracy in Latin America in 2013 was the following (in descending order):

² Latin America does not include countries with languages different to Spanish and Portuguese, e.g. Belize, Guyana, Suriname, French Guiana or Trinidad & Tobago.

³ <http://www.democracyranking.org>

- High, in Uruguay, Costa Rica and Chile
 - Medium, in Peru, Argentina, Panama, Mexico and Brazil
 - Low, in El Salvador, Colombia, Bolivia, Nicaragua, Ecuador, Honduras and Dominican Republic
 - Minimum, in Paraguay, Guatemala and Venezuela
- (IDD-LAT 2013)

Figure 1.1. Global democracy ranking in 2013



Source: Democracy Ranking Association, <http://democracyranking.org/wordpress/>

The problems of democratic quality in Latin America are interrelated to complex social configurations and power structures characterised by inequality and authoritarian tendencies. It is inevitable that the emergence of environmental citizenship in post-authoritarian Latin American states differs from that emerging in more consolidated democracies. It is this dynamic between the state and environmental citizenship that is a central concern of this thesis.

1.3. Complementary approaches from environmental political analysis

In the following sections I explore in more detail some of the work on environmental politics and citizenship. I focus on the idea of green states, disagreement and conflict within democratic models and forms of knowledge. Each of these topics provides insights into the issues that environmental citizenship must grapple with in the Latin American context.

1.3.1. Green states, democracy and authoritarianism

Within the field of political ecology, some scholars have posed analytical questions about power structures and environmental performance. One of the main concerns of political scientists is the forms of government and power concentration. Debates concern which is the better of two extremes: a system of concentrated power (e.g. totalitarian systems) or dispersed power (democracy). Most people think that the obvious answer is democracy, because we live in a democratic paradigm. After several 'democratic waves' that started in the 19th century and continued through the 20th century, democracy gained international legitimacy as the "least bad" system (Huntington 1991).

Environmentalism emerged within the democratic paradigm. Political ecologists speak of "green states". Eckersley, for instance, defines a "green state" not as a state governed by a green party, but "a democratic state whose regulatory ideals and democratic procedures are informed by *ecological* democracy rather than *liberal* democracy"⁴ (Eckersley, 2004, p. 2). Eckersley believes that deliberative democracies cope best with complex ecological problems because they have three constitutive features: unconstrained dialogue, inclusiveness and social learning (Eckersley 2004).

From Eckersley's point of view, three factors emerged and transformed the logics of international anarchy, capitalism, and administrative hierarchy': environmental multilateralism: sustainable development and ecological modernization as

⁴ Eckersley asserts that it is a *post liberal* state, because it does not reject liberal democracy.

“competitive strategies of corporations *and* states”; and civil society’s environmental advocacy, framed in a new democratic discourse. She asserts:

In circumstances where these three developments can be found to operate in mutually reinforcing ways, it is possible to glimpse a possible trajectory of development that moves away from ‘organized ecological irresponsibility’ ... to more ecologically responsible modes of state governance in the areas of economic development, social policy, security and diplomacy (Eckersley, 2004, p. 15).

Barry (1999) identifies two opposed green ideologies. The first one is *environmentalism*, which pursues the “greening” of ‘contemporary liberal democracies’. The environmentalist has a reformist perspective with a “more agnostic” attitude to the state. *Ecologism*, on the other hand is “unequivocally anti-state”, it is thus eco-anarchist.

According to that author, eco-anarchism has two versions. The weak version is *bioregionalism* that has a vision of a “commune of communes”; it “calls for greater integration of human communities with their immediate environment, with ‘natural’, rather than ‘human political’ (state), boundaries delimiting the appropriate human social unit” (Barry, 1999, p. 80). The strong version of eco-anarchism is *social ecology*, which claims that the state is unnecessary and undesirable “because by its very nature the state is a coercive institution which curbs human freedom ... the state is not just part of the ecological problem; it is the problem” (Barry, 1999, p. 80)

Despite the legitimacy of democracy (over power concentration or totalitarianism), there are some concerns about this political system and its environmental decisions. Humphrey identifies some tensions/contradictions between democracy and ecology (Humphrey 2007). He distinguishes two groups according to the acceptance or rejection of democracy as “capable of delivering ecological outcomes”. The group that accepts democracy posits that this system could be reinvented to make it “environmental friendly”; examples of this approach are “ecological modernisation theory” and those that seek the reconciliation of democracy with liberalism (Humphrey 2007).

Eco-authoritarianism is an example of the second group, an approach that disregards democracy.⁵ It considers that individuals are rational and thus will not choose (under the democratic method) to restrict their freedoms for “long-term environmental sustainability”; neither will they modify their behaviour. The existence of crisis (the ecological crisis) and collective action problem (the n-players’ prisoners dilemma), Humphrey suggests, leads to the authoritarian argument and to coercion. “The Leviathan of the state is the institution that has the political power required to solve this conundrum” (Humphrey, 2007, p. 15). The critics of eco-authoritarianism discredit the existence of the ecological crisis or accept it but disagree with the “authoritarian implications” that derive from the eco-authoritarian’s argument. However, Humphrey concludes, there is no evidence about authoritarian states being efficient in achieving the ‘green goals’ they prioritise.

Humphrey believes that *deliberative democracy* potentially conciliates democracy and ecological politics in a better way. Nevertheless, he asserts, deliberative democracy must not be exempt of anti-democratic practices. Some social groups that adopt direct-action strategies play an important role in democracies in triggering change towards better ecological outcomes that the deliberative democracies might not achieve by themselves. In Humphrey’s words: “In this sense, disruptive activity by special interest groups can be considered as part of the democratic tradition ... Democratic systems can never guarantee the ecological outcomes that green activists want to see, but we do better to consider their attempts to get us to engage with their demands (revolutionary anarchists aside) as part of the democratic process, rather than as seeing them as somehow beyond the pale of democratic life” (Humphrey, 2007, pp. 143-144).

Togerson also focuses on what kind of democracy can suit a green state. He believes that liberal democracy contains “its own distinctly authoritarian tendencies. Only a participatory orientation that clearly breaks with authoritarianism would thus seem to provide a green state with that democratic openness and flexibility needed to

⁵ Humphrey includes the eco-authoritarianism, the anarcho-primitivism and the ecological direct action. Survivalism corresponds to eco-authoritarianism, because it sustains the ‘eco-eschatology’ argument, this is, the ecological crisis as ‘imminent environmental catastrophe’.

grapple with environmental problems” (Torgerson, 1999, p. xi). He considers that asking what is best, whether democracy or authoritarianism, is irrelevant when the historical context of power is ignored. For instance, the power exerted by bureaucracy has played a crucial role in the formulation and implementation of industrialization policies.⁶

1.3.2. Disagreement and conflict

Democracies are about deciding collectively, i.e. to reach a social consensus. But the opposite, disagreement, is also a key feature of democracy; it is about the freedom to think differently. Part of a democratic system is the solution of conflict through democratic means. Some researchers have focused on this topic, i.e. disagreement, conflict and their implications in environmental citizenship.

For Bell (2005), the environment is always subject to a reasonable disagreement. Bell uses the Rawlsian concept of the ‘fact of reasonable pluralism’, which states that “there is a multiplicity of reasonable moral doctrines held by reasonable people in democratic societies” (Bell, 2005, p. 184). As a consequence of the “reasonable disagreement” about the environment, Bell considers that liberal environmental citizens should be granted with two types of rights: procedural rights to grant the participation in policy-making and decision-making on the environment; and personal rights to enable citizens to make choices in everyday life that impact the environment.

Machin (2012) proposes that green citizenship is naturally agonistic. The republican approach of citizenship is based on the assumptions of an agreement about the responsibilities that citizens have. Machin questions the existence of this agreement and considers that “disagreement about the meaning and requirements of ‘environmental citizenship’ is inevitable and ineradicable” (Machin, 2012, p. 855).

⁶ Torgerson thinks that “...with the emergence of modern bureaucracy and its panoply of technocratic devices, the public discourse of citizens and debates by citizen representatives in parliamentary assemblies came to be displaced in significance by administrative operations” (Torgerson, 1999, p. 11).

Thus, green citizenship should acknowledge the “irreconcilable differences” and even celebrate such *irreconcilability*. Conflict is necessary to decide what is the meaning of environmental responsibilities, which goes beyond ‘engagement in a public debate’. She concludes: “Citizen responsibility does not, I contend, require coming to an agreement but rather the making of a decision, a decision that is grounded not by consensus but by the conflict that arises from our differently embodied positions” (Machin, 2012, p. 862).

Barry (2006) considers that it is green citizens who force the state to become green:

Resistance is not only fertile for the cultivation of the virtues of sustainability citizenship and the emergence of greener states; it is increasingly a necessary obligation. To exaggerate, in the struggle for more sustainable, just, and democratic societies, we need civil disobedience before obedience, and more than ever, we need critical citizenship and not just law-abiding ones (Barry 2006, p.40).

Thus the debate is about accepting conflict and then finding democratic means to solve it. Drevenšek addresses the topic of negotiation. She supposes that a two-way symmetrical communication is a *sine qua non* condition to encourage environmental citizenship, both at the personal and institutional level (this is, governmental, profit and non-profit organisations). Therefore, it is important to plan and implement communication and negotiation of environmental risk in an effective way (Drevenšek 2006).

Trust, according to Drevenšek, is a key element in communication in “risk societies”. She suggests that we should be aware that the contemporary world is living in “times of predominant distrust in institutions and the overall decline in social capital”. Audiences often feel deceived, particularly when dealing with environmental issues. On one hand, “passions, emotions, interests, values and lifestyle prejudices” are present in environmental debate, as are situations that generate “confusion, conflict or even violence”.

The author considers that “[i]f properly researched, communicated and negotiated (‘talked-through’), these passions, interests, emotions, values and lifestyle prejudices,

inherent in complex environmental public policy disputes, can be a driving force for reaching sustainable agreements, rather than lead to chaos” (Drevenšek, 2006, p. 73). Public policy mediation, therefore, requires the deconstruction of the *status quo* in order to rebuild a configuration with an “actionable agreement” that allows people to address their passions towards achieving sustainability.

1.3.3. Technocratic or local knowledge?

A third area of contestation is around knowledge, which has been pointed out as an important element in conflict and negotiation by scholars (e.g. Drevenšek, 2006; Fischer, 2000; Luque, 2006; Schirmer, 2013). Drevenšek (2006) refers to the gap between professional (scientific) and lay knowledge that can affect communication in environmental citizenship. Luque (2006) considers that knowledge can be both a mediator and an inhibitor of environmental citizenship.

Schirmer (2013) explores the role of technical knowledge in citizenship. She highlights that “technocratic expertise marginalises other forms of knowledge and reduces willingness to search for non-technocratic solutions through mechanisms such as engaged environmental citizenship” (Schirmer, 2013, p. 87). Modern discourse places technocratic research as the only producer of truth about environmental problems, “a perfect reflection of natural reality”. Nevertheless, Schirmer observes, technocratic knowledge is “influenced by the culture, viewpoints and biases of the experts who produce it”, is not incontestable, and can “often contribute to, rather than help overcome, conflict over environmental problems” (Schirmer 2013, p.88).

Apart from technocratic knowledge, Schirmer suggests other kinds, such as local traditional, indigenous, experimental, specialised, strategic, holistic or ordinary knowledge. She suggests that deliberative citizen engagement can be a good way of integrating other kinds of knowledge to environmental decision-making. Schirmer also believes that citizens should participate in the production of technocratic knowledge, even when there may be some difficulties (e.g. citizens’ lack of funds and

time for engaging). She concludes that in order to tackle the complexity of environmental problems the incorporation of other knowledge should be encouraged, and the way technocratic data is presented should be more accessible to citizens (Schirmer 2013).

Fischer explores the tensions between citizens and experts within democracies, in the case of environmental policies (Fischer 2000). He highlights that many conflicts arise, on one hand, from the “overapplication of scientific rationality to public policy making”, and on the other hand from the undefined role of citizens and public participation. Citizen participation is the core of deliberative democracies, but when it comes to practicalities, citizens can be no more than voters under a sceptical approach; they lack the knowledge for a meaningful participation in policy-making (Fischer 2000).

Thus it is better to rely on experts, that is, the rule of technocratic reason. Fischer considers that “technical languages work both directly or indirectly to hinder the participation of ordinary citizens, as it underplays—if not denigrates—everyday moral vocabularies”. Many scholars have interpreted the technocratic reason as a subtle, apolitical form of authoritarianism; it works through “knowledge elites” that exist in “policy communities”. Fischer observes that the discourse of technocrats reveals the existence of “centers of power” that work in favour of dominant structures. Fischer then asserts that rather than public ignorance it might be the lack of opportunity that hinders the participation of citizens.

1.4. Concluding remarks

The analysis of environmental citizenship is guided by the concept of citizenship developed in political theory. Citizenship refers to the membership of a political unit (a nation-state in the contemporary world) and the consequent rights and duties in the relationship between citizens and the political unit. An assumption of the model is that citizenship exists in democracies and that people in non-democratic countries are subjects rather than ‘citizens’.

Environmental citizenship, as an academic field, has followed the approaches of citizenship theory, i.e. the liberal approach that highlights rights and the republican approach that emphasises duties. Nevertheless it has challenged citizenship theory in several aspects. For instance, the unit to which environmental citizens belong is not necessarily a political unit (nation-state); it is determined by the environment and may work on regional or global scales. The research on environmental citizenship has tended to adopt a normative approach. It focuses on the kind of citizens that the environment needs. New trends of research are arising to explore environmental citizenship empirically.

The social complexity of Latin America challenges the existing research on environmental citizenship. The analysis of environmental citizenship in Latin America must consider the existing political debates, social struggles and social phenomena such as inequality, tensions between democracy and authoritarianism, and corruption and impunity. It must also engage with broader themes relating to green states, resolution of conflicts and disagreements, differences between technocratic and local knowledge and influence, and cases of environmental victimisation.

This chapter has sought to provide the conceptual foundations for this thesis and legitimise its focus on the forms of environmental citizenship emerging in post-authoritarian Mexico. Crucially I have sought to show that environmental citizenship is tied to the political and economic structures in which it emerges, and as such must be approached at different scales of analysis – from the national and even international levels to that of the individual. In other words environmental citizenship is contextual. In this thesis I focus on the Mexican context, tracing connections between the historical development of the country, existing constitutional and institutional arrangements and the openings that have emerged for environmental citizenship in more recent years.

My overall aim is to analyse the emergence of environmental citizenship in the post-authoritarian context of Mexico. I assume that environmental citizenship in Mexico is

a multifaceted phenomenon and under continual construction. Different kinds of citizenship emerge from particular spaces of socio-ecological contestation. My particular research questions are:

- How is environmental citizenship emerging in different sites of contestation? What sorts of environmental citizenship are emerging in these sites?
- Which social actors participate in the shaping of environmental citizenship in different sites of contestation?
- How are expressions of environmental citizenship influenced by the challenges of post-authoritarian transitions?
- How does environmental citizenship interact with other social movements?

Each of these questions provides insights into the opportunities and constraints shaping the emergence of environmental citizenship in Mexico and explores the links between different sorts of stakeholders and citizens, as well as the networks that extend beyond state boundaries.

Chapter 2. The case of the Zapotillo dam and research methods

The Zapotillo dam is a project promoted by the National Commission of Water. The project originally considered a wall dam of 80 m and the construction of dykes to protect the town of Temacapulín from flooding. In 2008 the project was modified to increase the wall to 105 m. Under this new scenario, the towns of Temacapulín, Acasico and Palmarejo would be flooded and their communities would be relocated.

Led by the community of Temacapulín, a social movement has emerged to oppose the relocations. The movement fought and continues to fight for the re-modification of the project to save the towns from flooding. Some groups within the movement ask for the total cancellation of the dam. The movement has obtained the support of important stakeholders from organised civil society and has succeeded in resisting and using resources (e.g. legal defence, social campaigns, and political lobbying) to stop the construction of the dam. The movement will not be reviewed or analysed in this chapter. It will be explored along the way through the rest of the thesis, particularly in chapters 5 to 7.

At the time when this chapter was concluded (August 2014), the construction of the dam was suspended. Three resolutions from the state of Jalisco's tribunal for administrative and labour issues (*juzgados de distrito en materia administrativa y del trabajo*) have ruled the suspension of the construction of the wall beyond 80 m. These judiciary rulings resulted from the legal action of the movement (Del-Castillo, 2014). The dam promoter (National Commission on Water) declared that they have only suspended the construction of the wall, while the collateral works keep going (El-Informador, 2014b).

In this chapter I provide context and detail for the case study. I first provide an introduction to the political history of Mexico that has culminated in today's post-authoritarian state. I then explore the historical context for the Zapotillo dam

proposal and some of the core issues surrounding it. I conclude by outlining the multi-scalar methodology applied to research this particular case.

2.1. Historical context of the post-authoritarian state in Mexico.

Mexico is the perfect dictatorship. The perfect dictatorship is not communism. It is not the USSR. It is not Fidel Castro ... It is the dictatorship that is camouflaged in such a way that it may look like it is not a dictatorship, but it has, in fact, ... all the characteristics of a dictatorship: the presence, not of a man, but of a party ... which has created a rhetoric that justifies it, a left-wing rhetoric for which, along its history, recruited in a very efficient way the intellectuals ...
(Vargas Llosa, 30 August 1990)¹

In this section I explore the roots of the current post-authoritarian state in Mexico to provide a broader historic framing for the case study. After independence from Spain in 1810, Mexico experienced a 19th century full of political instability and struggles to configure the political system. Different groups promoted all kind of models, e.g. the establishment of a republic, a constitutional monarchy, centralist and federalist systems.² When the republican government was established in the decades of the 1860s and 1870s, the country came into a period of relative stability, especially under Porfirio Díaz who took up the presidency of Mexico in 1876 and stayed in power until 1911.

The dictatorship of Díaz was overthrown through the Mexican revolution. As a consequence of the revolution, the current constitution was enacted in 1917. The new constitution established that Mexico was to be a representative (citizens elect their

¹ My translation from the video <http://www.youtube.com/watch?v=kPsVWwG-E38> v.i. 1 May 2012

² Between 1821 and 1853 there were five constitutions, and more than 30 people who held the executive power, one of them an emperor; and between 1853 to 1887 there were a liberal republic constitution (1857), eight presidents and an emperor supported by foreign powers and Mexican conservatism (Maximilian of Habsburg) (Lira 2010).

governors), democratic and federal republic (C-1917, article 40). The constitution also established a presidential political system (with 4-year terms) and banned presidential re-election to avoid the dictatorships that had characterised the 19th century. The revolution acquired a symbolic value and was consecrated as the origin and rationale of the state. In a similar way, the constitution became a “sacred” text that reflected the Revolution’s ideology and social ends.

Nevertheless, the post-revolutionary regime was not exactly democratic. Mexico created a stable regime, with regular elections,³ that were won by a hegemonic party uninterruptedly from 1929 to 2000. Mexico had a *sui generis* political system that challenged political scientists. Smith, for instance, considers that in the revolution’s aftermath, Mexico went from democratic character (1911-1912) to different periods of non-democratic and semi-democratic character between 1913 and 1928. The post-revolutionary period, from 1929 to 1987, was non-democratic. After this, there was a period of semi-democracy (1988-1999) until finally Mexico could be considered democratic since 2000 (Smith, 2004).

The post-revolutionary regime was neither a democracy nor a dictatorship. There was not a dictator, but different presidents “elected” in regular polls that were all won by the hegemonic party. In 1990, the writer Vargas Llosa⁴ publicly described Mexico as “the perfect dictatorship”, because of the longevity, stability and authoritarianism of the regime. His phrase (quoted above) produced a major controversy in public opinion. The intellectual had openly challenged the regime and the government reacted by asking him to leave the country, banning his continued presence in Mexico.

The term “perfect dictatorship” transcended in public discourse to describe the authoritarian regime of Mexico. There were many other terms, e.g. Cosío Villegas called it “a sexennial, absolute monarchy, inherited in a transversal line”. In this thesis I will use the term proposed by Krauze (2002) to describe the post-revolutionary

³ By “regular elections” I mean that elections were done periodically, frequently and with legality.

⁴ Vargas Llosa is a Peruvian author with a big intellectual influence in Latin America, awarded in 2010 with the Nobel Prize of Literature.

regime of Mexico, i.e. the “imperial presidency”, which refers to the absolute power concentration in the figure of the president.

What was the “imperial presidency”? What was the key to its success (efficiency and durability)? In the following pages I will review the configuration of this political regime in order to understand the origins and tendency towards disproportionate power concentration, which has been held by dominant political elites and has determined the development of democracy and citizenship.

The aftermath of the 1910 revolution was violent and unstable. The uprising produced many groups and many leaders who fought among themselves for power. In 1920, Álvaro Obregón was sworn in as President and headed a process of pacification (both through negotiation and the murder of his opponents). At the end of his term, Obregón promoted the candidature of his ally, Plutarco E. Calles, who won the 1924 presidential election. Calles ruled during his term with relative political stability. This period, led by Obregón and Calles (1920-1928), was crucial for the establishment of many institutions of modern Mexico; one of them was the National Commission of Irrigation, the water bureaucracy that will be analysed in this thesis.

The 1928 elections broke this political stability because Obregón wanted to be president again. With the support of Calles and the legislature, the constitution was amended to allow his presidential re-election and to extend the presidential term from four to six years. Obregón ran as candidate and won the election but never took office as he was assassinated in July 1928.

The re-election of Obregón would have implied the return of 19th century's practices, when popular leaders ended as dictators and perpetuated their power. The assassination of Obregón produced the re-amendment of the constitution to ban the executive's re-election in all levels of government, i.e. federal (president), state (governors) and municipalities (municipal presidents, equivalent to city majors), although the six-year presidential term stayed. The principle of no re-election is one of the most important in the Mexican political system. Reflected in the slogan

“effective suffrage, no re-election”,⁵ this principle was adopted in the national discourse and became a legitimate rule of the system. It is seen as *the* “fruit of the Revolution”. This perception is still present in much political discourse in Mexico.

The rules had changed, but it did not end the temptation of leaders to perpetuate their power. Obregón was dead and Calles became the *de facto* leader. He was acknowledged as the “maximum leader of the Revolution”. Calles found a solution to solve the political crisis produced by Obregon’s attempt at re-election and perpetuation in power without breaking the rule of non-re-election. The solution was the creation of a party formed by the leaders of all social and political movements. A party where competition could take place and conflicts could be solved in an organised and disciplined way; an “official” party supported by the State; a party with no real competition. The party was founded in 1929 with the name of National Revolutionary Party, PNR (*Partido Nacional Revolucionario*). It changed its name twice, finally as the Institutional Revolutionary Party, PRI (*Partido Revolucionario Institucional*). The inclusion of all relevant political elites in “the Party” and the internal and disciplined resolution of conflicts (where the leader acted as judge) became the second informal rule of the system (the first being that of no presidential re-election).

The period 1928-1934 is known as the *maximato*, because Calles (the “maximum chief of the revolution”) was the *de facto* leader who governed through three “puppet-presidents”.⁶ In the 1934 presidential elections, Lázaro Cárdenas was appointed as the Party’s candidate, with the support of Calles. Cárdenas was sworn in as president and Calles attempted to rule him, as he had done with his predecessors, but the new president did not allow it. In 1936, President Cárdenas exiled Calles and his principal supporters from the country. Cardenas gained legitimacy as leader and consolidated presidential power. Thereafter, the third informal rule of the system

⁵ Even today, official communications in Mexico must end with the slogan of “effective suffrage, no re-election”.

⁶ Emilio Portes Gil, in office from 1928 to 1930, Pascual Ortiz Rubio (1930-1932) and Abelardo L. Rodríguez (1932-1934).

was that power was to be held by the president and the president was the maximum political leader (including the Party).

At the 1940 election, Cárdenas did not try to stay in power. Using the absolute presidential party and the leadership of the party, Cárdenas appointed Ávila Camacho as the new presidential candidate. Ávila Camacho was sworn in as president and Cárdenas retired from politics. Ávila Camacho received all the power of the presidency and the support of the political elites. He ruled six years, after which he designated his successor and gave him all his presidential powers. The fourth and fifth informal rules of the system had been established, i.e. the designation of the successor and retirement from politics.

In summary, the “imperial presidency” consisted in a political system in which:

1. There was no presidential re-election;
2. All relevant political elites were represented and organised in “the Party”, the PRI. Political competition of the elites occurred within the party in a disciplinary way;
3. Every six years the party’s candidate was elected as president and received all the power of the system. Despite the existing division of powers, it was the president who had the maximum authority, appointing legislative candidates and judges. The presidency elaborated all the legislative bills, which were approved unanimously by the legislative arm. The president was also the highest appeal court, above the judiciary (Carpizo, 2004);
4. At the end of his term, the president appointed his successor. This implied that the political elites competed to gain the favour of the president who decided the next Party’s candidate; and
5. After their term, ex-presidents retired completely from politics.

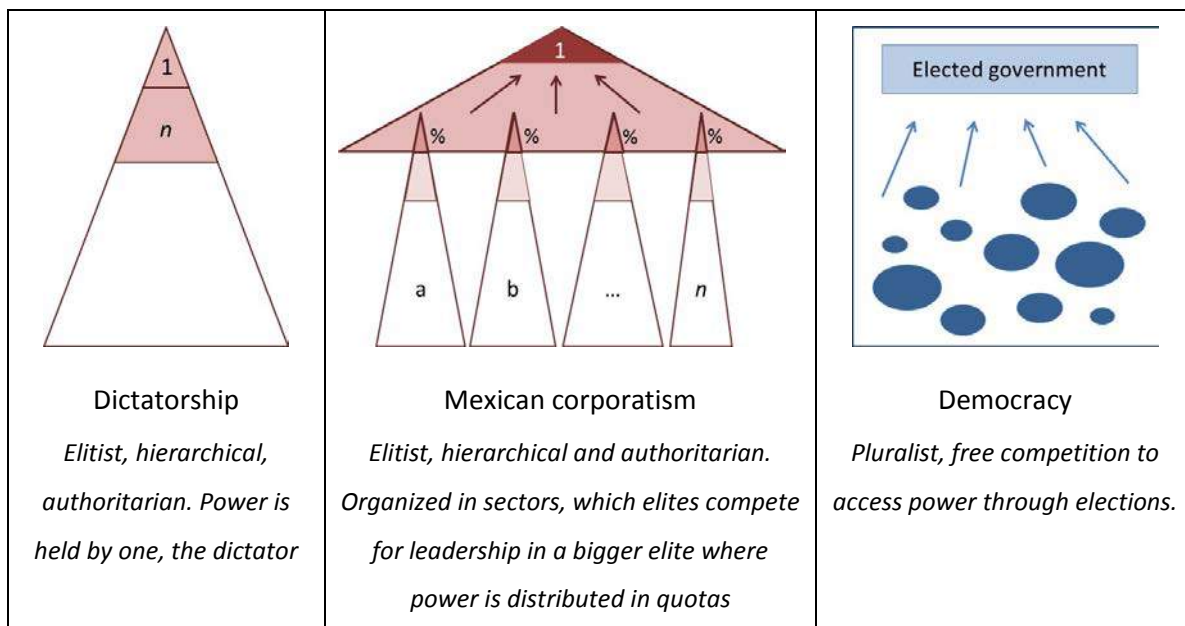
Mexico was neither a dictatorship nor a democracy. The political system adopted by Mexico corresponded to what is known in political science as *corporatism* or *corporativism* (Ortega-Riquelme, 1997; Vázquez-Anderson, 2004; Zapata-Schaffeld, 2004). Philippe Schmitter defined corporatism as “a system of interest representation in which the constituent units are organised into a limited number of singular, compulsory, non-competitive, hierarchically ordered and functionally differentiated categories recognized or licensed (if not created) by the state and granted a deliberate representational monopoly within their respective categories in exchange for observing certain controls on their selection of leaders and articulation of demands and supports” (Schmitter, in Gerber, 1995, p. 315). The scholarship on this subject has distinguished between state-corporatism, associated with authoritarian regimes, and social-corporatism that is more characteristic of the liberal democracies (Ortega-Riquelme, 1997; Vázquez-Anderson, 2004).

In Mexico’s “imperial presidency”, power was political capital distributed in “quotas” between the main social organizations or “social sectors” like unions, entrepreneurs, producers, and the government itself. It was a state-corporatism combined with a strong authoritarianism. Vazquez considers that Mexican corporatism was a hybrid between populist and authoritarian-bureaucratic corporatism, in which the interests of the people are either included or excluded (Vázquez-Anderson, 2004). In other words, the state focused on social policies to benefit majorities, but in a selective way, through corporatist mechanisms. The state distributed all kind of privileges to the elites, through patronage, clientelism and nepotism (that includes family and friends), where loyalty is more important than merit. The endemic corruption in Mexico is vested in this corporatism. Corruption is in part due to a generalised practice of privileges and friends, where it is more important to know the *right* person than to comply with regulations.

Corporatism is an elitist political system, that is, power is concentrated amongst a few and there is no open access to power, as in democracies. Nevertheless, corporatism is not like a dictatorship where power is vertically organised and depends on a single individual. Figure 2.1 explains graphically the differences between a dictatorship, the Mexican corporatist regime and a democracy. The groups’ elites form a larger elite

where they compete for the main position (the system's leader). In that larger elite, power is negotiated and distributed in quotas.

Figure 2.1. Mexican corporatism compared to dictatorship and democracy



Source: Elaborated by the author.

The “imperial presidency” started to deteriorate in the 1980s after the collapse of the economic model that was completely centred in the state. Despite the auto-constructed image of stability and economic progress, the economic model came to a dead end in 1982 when Mexico declared bankruptcy to its foreign debt guarantors. The international economic organizations (World Bank and International Monetary Fund) contributed to rescue the economy with the condition of Mexico abandoning the controlled-economy model. Mexico was compelled to adopt the “structural adjustment” policies suggested by the international financial organisations and moved abruptly to neoliberalism. The populist discourse based on communism and centred in the state was abandoned.

The shift to neoliberalism produced many casualties, above all the most disadvantaged: working class, middle class, small and medium businesses, etc. The economic crises increased social discomfort. In the past, despite the regime's image of political stability, numerous “opposition” social movements had questioned the

system. Many of those groups were systematically silenced or suffocated by the governments of the imperial presidency. This topic will be elaborated in Chapter 5.

The 1980s were a decade of political effervescence. The internal unity of the PRI broke when a dissident group (called the “Democratic current”) tried to reform the system and suggested that the party, not the president, should appoint the presidential candidates. The dissident group did not succeed and left the PRI to create a new party, the left-wing Democratic Revolution Party (PRD), which is one of three parties that define the current party system in Mexico. The rules of the imperial presidency had been eroded because the PRI was no longer capable of keeping *all* political competition within the Party.

The 1988 presidential election was highly contested. For the first time in history the PRI’s candidate faced an election with *real* competition, from the left organization that had arisen from the PRI’s dissidence and from the rightist National Action Party (PAN). The PRI was declared to have won with 50.36% of the votes, but because of the irregularities of the system a debate arose full of suspicion about the legality of the process and the legitimacy of the results (e.g. Arredondo, Fregoso, & Trejo, 1991; Reding, 1988). The 1988 elections showed that an important part of society wanted change, i.e. to end the authoritarian corporatist system. This was the beginning of the “democratic transition”.

In 2000 the PRI finally lost the presidential elections. Ever since, formal and informal rules have been modified to avoid power concentration. Unfortunately, the results are far from the desired democracy. The “imperial presidency” was in a certain way dismantled, but power was “captured” by highly organised groups such as broadcasting companies, unions, major corporations, and groups or families around certain politicians and even organised crime gangs (Krauze, 2010; Meyer, 2013). These groups have been called *poderes fácticos* (de facto powers). This competition for power has raised no clear rules.

The state’s loss of its power monopoly has deteriorated the rule of law. During the 12 years of the right-party PAN’s rule, from 2000 to 2012, the country became embroiled

in violence. President Calderón (in office from 2006 to 2012) adopted public security as the main issue of national policy and he declared war on the *narco* (drug dealing activities). The casualties of the “war” are alarming. There is no certainty about the number of deaths and missing people in this period, but social organisations assert that between 60,000 and 150,000 people were killed and between 5,000 to 40,000 thousand went missing (Martínez, 2012; Navarrijo, 2012). Poverty, inequality and unemployment have increased.

The PRI regained the presidency in 2012. The electoral process took place amidst irregularities and accusations. The existing violence, unemployment and rule-of-law’s deterioration might have been factors behind the decisions of voters who wished to bring back the “good times” of stability and order. The return of the “dinosaur” (as the PRI is commonly known in Mexico) has opened a debate in Mexico that questions whether there will be “democratic regression”, i.e. a return to a non-democratic or semi-democratic regime (e.g. Flores-Macías, 2013; Gómez-Vilchis, 2013; Reyes del Campillo, 2012).

Meyer considers that Mexico is now an “authoritarian democracy”, where social participation and freedoms⁷ are still threatened by powerful groups (Meyer, 2013). I agree entirely with Meyer. The authoritarian practices have not died; they coexist with the democratic discourse in a democratic transition that seems to be endless.

I finish this historical review by highlighting the positive side of the political transition. Society has become much more active and organised in Mexico. The democratic transition created several mechanisms, such as freedom of information, accountability and human rights advocacy. These mechanisms are now part of the regular life of society; they have become useful tools for social movements. The globalised technologies of information and communication have enhanced social action and the appearance of independent media. All these are important developments for environmental citizenship.

⁷ For instance, press freedom. Mexico became one of the most dangerous countries for journalism.

2.2. A long history of failed water projects. Precedents of the case

The Zapotillo dam is an example of governmental failure in promoting dams without social negotiation. The Zapotillo is the third project in Jalisco since 2002 that has attempted to build a dam on the Verde River. The other two were Arcediano (2002-2009) and San Nicolás, (2002-2005), both of which had strong opposition from social stakeholders (see Figure 2.2).

Figure 2.2. Conflicts around mega-dams in Jalisco (2002 to present)



Source: Elaborated by the author with original maps from Google-Earth

The Arcediano dam was designed to provide water to Guadalajara. It was proposed by the State Commission on Water and Sanitation of Jalisco. The wall of the dam was to be located after the confluence of the Verde and the Santiago rivers, at the bottom of the Huentitán canyon (the north-eastern border of the city); the water would be pumped to supply Guadalajara half a kilometre above. The project was questionable on many grounds, e.g. environmental, public health, financial, geological and geo-

hydrological. Social stakeholders from Guadalajara, mainly environmentalists, strongly opposed the project (Bravo-Padilla & Figueroa-Neri, 2006; Palerm, 2005; Rojas, 2007).

A second dam, the San Nicolás dam, was intended to provide water to the city of León in the state of Guanajuato, as part of negotiations between Jalisco and Guanajuato. Guanajuato would take water from the Verde River in Jalisco's territory and, in return it would release water that was held in the Lerma River to run into Jalisco's Chapala Lake (Hernández & Casillas, 2008). This was a federal project, overseen by the National Commission on Water and required cooperation between Jalisco and Guanajuato. The people potentially affected quickly organised to oppose the project and succeeded in getting it cancelled thereby saving their town (Casillas, Hernández, & González, 2010; Hernández & Casillas, 2008; López, 2005). This was the first extraterritorial anti-dam movement in Jalisco and migrants had significant participation in it. For instance, the Absents Committee of San Gaspar that worked from San Francisco, California (US) was heavily involved in the resistance (López, 2005).

When the San Nicolás project failed in March 2005, it was not really cancelled. Rather, it was moved to the new site of El Zapotillo, where it could be built with an 80 m high wall and satisfy the original objective to provide water to León. With this height there was no need to displace any community; but to avoid flooding risks for Temaca in extreme weather events, some dykes were to be built.

It was not until 2008, when the cancellation of the Arcediano project was imminent, that the increase in height of the dam's wall to 105 m was decided on, in order to get an additional volume of water for Jalisco. In this scenario, three small towns would be flooded (Temacapulín, Acasico and Palmarejo). In the eyes of the water authorities this was a minimal cost for a project that would "repair" the past mistakes and replace the two cancelled dams. Communities with small populations and far from the organised civil society of Guadalajara were not obstacles for dam makers in the past century, because projects were imposed and negotiations were less relevant for the government.

In this chain of dam projects, the core of the problem is the city of Guadalajara and its water needs. With a population of 4.4 million, Guadalajara is the second largest city in Mexico. According to the Inter-municipal System of Potable Water and Sewage (SIAPA) of Guadalajara, the metropolitan area of this city (I will refer to it just as Guadalajara) uses around 10 m³/s of water, which comes from Chapala Lake (57%), underground water (32%) and the Elías G. Chávez dam (11%) (Carranza-Angel, 2012); see Figure 2.3.

Figure 2.3. Water supplied to Guadalajara City in 2011



Source: Carranza-Angel, 2012, my translation

Guadalajara needs more water, according to the state's water authorities. This conclusion is based on the following assumptions:

1. The growth of the city. Guadalajara had experienced unplanned growth in the last few decades; it has doubled in size in less than 30 years. Estimates by the government say that it could reach 5.4 million by 2030 (COEPO, 2008).

2. On average, the consumption of water per inhabitant in the metropolitan area of Guadalajara is 200 litres per day. This is an unsustainable figure; according to the World Health Organisation, a human being needs between 50 and 100 litres per day. The major problem is the waste of water through leakage in the distribution system. The waste per year is 110 of the total supply of 270 million cubic metres (El-Informador, 2014a), i.e. 40.7%.
3. Chapala Lake is the largest lake in the country, and the distance between the lake and the city centre is less than 45 km. Chapala has serious problems of pollution and availability that have originated in the water management of the Lerma River, its primary tributary. The overuse and poor management of the Lerma-Chapala-Santiago system have imposed pressures on the Lake and deepened the extent of dry periods (that occur naturally in a cyclic pattern). The “crisis of Chapala” is a frequent issue in the public discourse of Jalisco.

Water authorities have adopted a supply approach under a status quo future scenario. In other words, they assume that there will be no significant policy changes: the population will be growing at the projected rate; they will consume the same quantity of water per capita; the leakage of water in the system will remain unrepaired; and the pressures on Chapala will prevail or increase.

In his research on Guadalajara’s water geopolitics, Mario López (2005) considers that in the middle of the 20th century, Guadalajara lost its water autarchy, that is “the condition of autonomy of having its own vital space water supply, through the use of a system of local ground and underground aquifers ... [which] creates the possibility of auto-sustainability and urban auto-reproduction” (López, 2005, pp. 133-134, my translation). In 1957 Guadalajara became dependent on a remote water source, i.e. Chapala Lake. López considers that this dependency has created a complex scenario of political tensions and negotiations. Dam projects such as Arcediano have been an attempt to get back to water autarchy, but have been short in scope and not sustainable (López, 2005).

There have been no significant works to attend to the water problems of Guadalajara in more than 20 years. According to Rojas (2007), since the change of government in 1994⁸ in Jalisco (when PAN won the elections), attempts to solve Guadalajara's water problems have failed because of the disagreement between authorities and social stakeholders (Rojas, 2007). The political transition has not yet benefited water policy in Jalisco.

2.3. The Zapotillo dam project

2.3.1 Summary of the project

The Zapotillo dam is a federal project conducted by the National Commission on Water (CONAGUA, from now on) aimed at:

Guaranteeing the supply of potable water for the next 25 years to [the region of] Los Altos [in the state] of Jalisco, the city of León, [in the state of] Guanajuato and regulate [water] volume to supply 3 m³/s to the Metropolitan Area of Guadalajara, through the use of waters from the Verde River ...

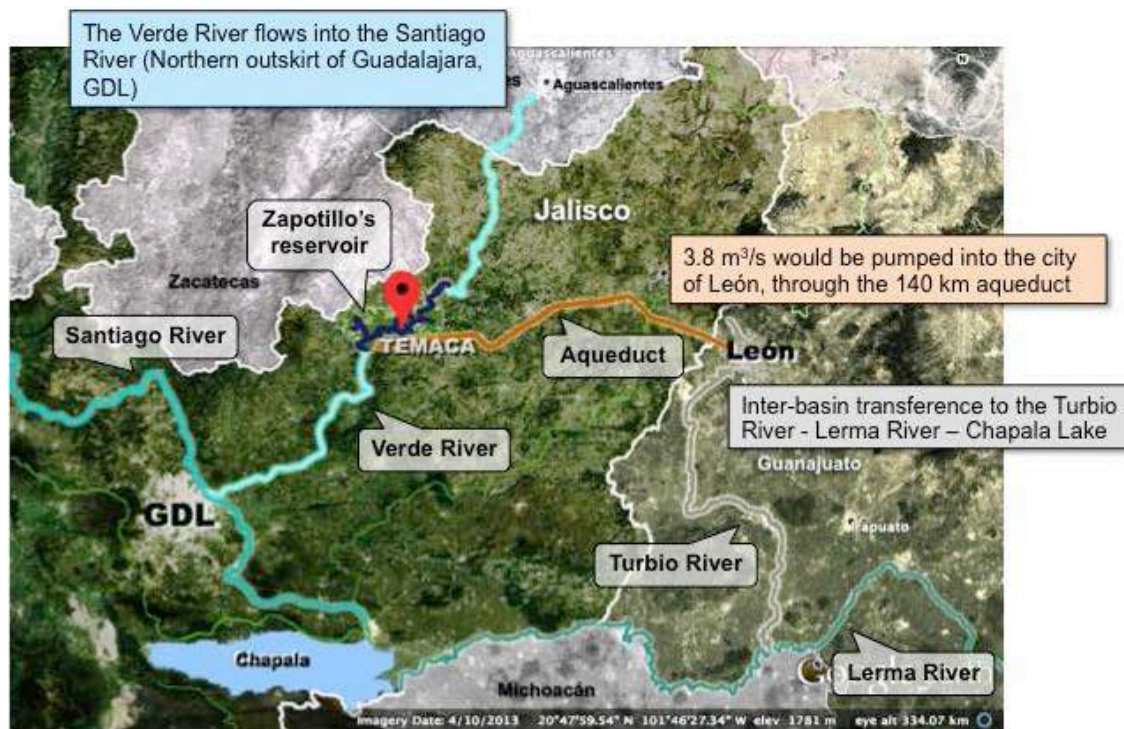
(CONAGUA, 2012, p. 7 my translation)

The Zapotillo is a community located in the municipality of Cañadas de Obregón, part of Los Altos region of Jalisco. The Zapotillo dam is being built on the Verde River,⁹ approximately 100 km from Guadalajara City and 140 km from León City, Guanajuato. Part of the project involves the construction of an aqueduct and pumping station to transfer water from the dam to León City (CONAGUA, 2011; CONAGUA-PC) (see Figure 2.4).

⁸ Jalisco was one of the first local governments that the PRI lost in the polls.

⁹ The Verde River crosses several states: Zacatecas, Aguascalientes, Guanajuato and Jalisco. According to the constitution (art. 27), a water body that crosses two or more state belongs to the federation. This is why the CONAGUA is responsible for its management and the Zapotillo dam project.

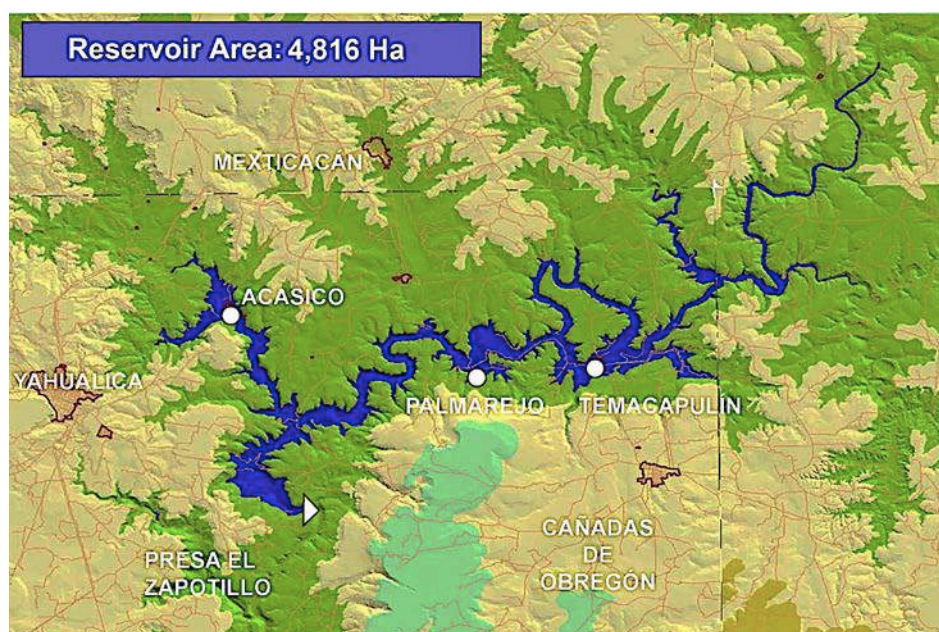
Figure 2.4. The Zapotillo dam project



Source: Elaborated by the author, with original satellite image from Google Earth

The dam was originally designed to have a wall height of 80 m, but in 2008 the project was modified to expand the volume of the reservoir. The new wall height was fixed at 105 m, which would enable it to hold a maximum 911 million cubic meters of water (at normal pool elevation level). The reservoir area would be 4,816 ha and it would flood three towns: Temacapulín, Acasico and Palmarejo (see Figure 2.5). The displaced population would be relocated in two new towns: Nuevo Temacapulín (New Temaca, also known as Talicoyunque) and Nuevo Acasico (located in the municipality of Mexxicacán, Jalisco) (CONAGUA, 2012).

Figure 2.5. Projected reservoir area of the Zapotillo dam, with a 105 m height wall



Source: CONAGUA, 2011, my translation.

On average, the dam's volume of water equals to 8.6 m³/s of constant flow, which would be distributed according to the agreement signed between CONAGUA (federal government), and the states of Jalisco and Guanajuato in 2007 (see ^a 2.1)

Table 2.1. Distribution of the Zapotillo dam water

<i>Total constant flow</i>	<i>State</i>	<i>User</i>
8.6 m ³ /s	4.8 m ³ /s Jalisco	3.0 m ³ /s Guadalajara City ^a
		1.8 m ³ /s Los Altos Region
	3.8 m ³ /s Guanajuato	3.8 m ³ /s León City ^b

^a Water would be released to the river's natural course.

^b Water would be pumped vertically 500 meters and then pass along the projected aqueduct.

Source: Elaborated by the author with information from CONAGUA (2012)

Expressed in percentages 55.81% of the water is destined for Jalisco and 44.19% for Guanajuato. It is important to recall that the agreement does not speak of these percentages. Instead, it assumes a fixed volume of water from the Verde River. Opponents of the dam have pointed out methodological inconsistencies in these estimations of water availability (e.g. Acosta-Gurrola, 2011). For instance, the total

volume of water cannot be rigid; it depends on several factors including climatic phenomena. Besides, the dam would be built in Jalisco, downstream of Guanajuato, and it would provide firstly water to Guanajuato. If the volume of water is overestimated, Guanajuato would first use the 3.8 m³/s assigned by the agreement and Jalisco would use the remaining water, which would be lower than the agreed 12.2 m³/s.

2.3.2. Regional context

The Zapotillo dam is being built on the Verde River, the main river in the area. The Verde River runs from north to south and converges with the Santiago River on the northern border of Guadalajara city. The Santiago River is part of the Lerma-Chapala-Santiago system; the Lerma River comes from central Mexico and ends in Chapala Lake; the water continues its flow from Chapala Lake as the Santiago River. Both the Lerma and the Santiago are among the most polluted rivers in the country because they receive the water discharges of the mega-cities and surrounding industrial areas, i.e. Mexico City in the case of the Lerma River and Guadalajara in the case the Santiago River.

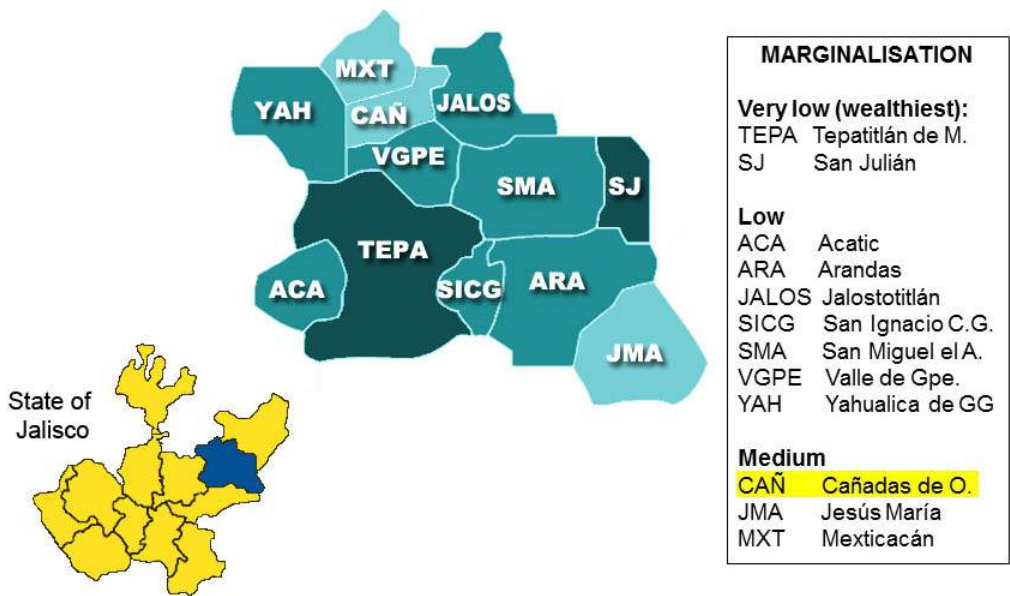
The state of Jalisco is located in Central West Mexico. It has a population of 7.35 million and is the fourth most populated state in the country.¹⁰ Of the 32 states of Mexico, Jalisco can be considered as one of the wealthiest. In 2009, it produced 6.3% of the national domestic gross product (the fourth largest share) (INEGI, 2011). It is considered to have a “low” degree of marginalisation according to the index made by the CONAPO (Population National Council) in 2010.

The communities affected by the dam are in a region known as South Altos (see Figure 2.6). Despite the semi-dry climate, this region is an important producer of

¹⁰ Data from INEGI, Censo de Población y Vivienda 2010, available at <http://www.inegi.org.mx/est/contenidos/proyectos/ccpv/cpv2010/Default.aspx> v.i. 27 April 2014

agriculture and livestock products. It is the biggest producer of eggs and pork products in the state (COPLADE, n.d.).

Figure 2.6. Region South Altos – Municipalities and marginalisation index



Source: Elaborated by the author with information from COEPO (2011).

Temaca is part of the municipality of Cañadas de Obregón, a small and in certain ways marginalised municipality within a prosperous area. It has a population that has decreased over the years, with high emigration levels; in 2010 the Census reported 4,125 inhabitants, most of whom (63%) live in the town of Cañadas de Obregón (COEPO, 2011). Temaca is the second largest town in the municipality; it reported 332 inhabitants in 2010. Regarding to marginalisation, which is the index used by the government to measure poverty, Temaca has a “low” level of marginalisation, while the municipality reported a “medium” level (COEPO, 2011).

Whilst in the past Temaca was an important settlement, famous for its hot springs and for its religious sites, it became a “forgotten” town that few people had heard of before the Zapotillo dam project. It is approximately 50 km from the highway by a road in very poor condition that requires more than one hour of driving. From Guadalajara City, it is faster and safer to go to San Juan de los Lagos (one of the most important municipalities of the region) than to Temaca, which is closer.

Temacapulín is in the valley flatland at the bottom of a canyon. From an engineering perspective the area is suitable for a dam. Several projects for dams were proposed in the 1920s, the 1950s, the 1960s-1970s, and they have all been cancelled for a variety of reasons (Cárdenas, 2013).

2.4. Inconsistencies of the project

Opponents of the Zapotillo dam have posited multiple inconsistencies and weaknesses of the project. The list of arguments is long and comes from diverse viewpoints. I do not intend to review or reproduce them here. The project is full of irregularities that may never be solved. This section addresses the three main ones: the non-compliance with environmental regulations; the financial costs of the project and suspicion of corruption; and the failure of contempt of court action for breaches of the judicial rulings.

2.4.1. Non-compliance with environmental regulations

Mexico instituted the process of conducting environmental impact assessments (EIA) in early legislation dating from 1982 (Gil-Corrales, 2007), before the political and economic transition. The new environmental legislation of 1988 established the obligation to conduct an EIA¹¹ in cases such as large dams that may produce significant impacts on the environment. The EIA procedure includes: a natural protected areas assessment; a regional impact assessment; a statement of the potential impacts and mitigation; an open consultancy process and public hearings (when requested by affected persons). The approval of the EIA is made by the ministry of the environment (SEMARNAT, *Secretaría de Medio Ambiente y Recursos Naturales*), which reviews compliance with environmental standards and the project's compatibility with territorial and ecological land use plans, among other criteria (M. Antonieta Gómez-Balandra, Saldaña, Lecanda, & Gutiérrez, 2006).

¹¹ EIA is called in Mexico *manifestación de impacto ambiental* (MIA), which means 'environmental impact statement'. I will use the acronym of EIA instead of MIA.

In the case of dams promoted by CONAGUA, there is a conflict of interest because CONAGUA belongs to the ministry of the environment. Thus, the ministry is both the judge and the subject of judgement in the review of an EIA. An example of the consequences of this situation is the Arcediano dam project. The approval of the Arcediano's EIA was initially conditioned to certain measures such as not building the dam until the river was cleaned (which could take several years or even decades). The dam promoter lobbied with the SEMARNAT and the EIA approval was modified to eliminate that condition (Bravo-Padilla & Figueroa-Neri, 2006).

CONAGUA elaborated and obtained the approval of the Zapotillo dam's EIA when the dam was proposed to have a wall height of 80m and no human settlements would have been flooded. The Zapotillo's EIA considered the construction of dykes to protect Temacapulín from extraordinary weather events. In April 2006, CONAGUA conducted a consultation with citizens that the EIA requires although not in the region, but in the city of Guadalajara. CONAGUA asserts that they have had "information meetings" in the towns of Acasico, Palmarejo and Temacapulín since 2005 (CONAGUA, 2012). As mentioned above, the raising of the dam wall's height, and the potential flooding of these towns, was decided much later, in 2008.

The updating of the EIA to the scenario of a 105 m wall has been considered in CONAGUA's budget (it was assigned a budget for this task of 0.5 million of MXN) (CONAGUA, 2012), but there is no public information about whether or not this revision has taken place.

There is another environmental disposition that did not exist until 2012 and would require a new (rather than revised) EIA of the dam project. It is the environmental flow determination official standard (code: NMX-AA-159-SCFI-2012) that establishes the technical procedure to calculate the ecological flow of a basin, defined as the quality and quantity of water required to maintain the components, functions and processes of an aquatic ecosystem. The approval of this standard was the product of a sustained lobbying and public debate promoted by environmentalists (Gómez-

Balandra, Saldaña-Fabela, & Martínez-Jiménez, 2014). It was finally approved, but with the status of a non-compulsory standard¹².

In conclusion, the Zapotillo project has not complied properly with environmental regulations. The lack of compliance has not been monitored and prosecuted, despite the protestations of the dam's opponents. In this case, environmental regulations have not been enforced.

2.4.2. Economic costs of the project, public finances and suspicion of corruption.

The estimation of the costs of the project declared by CONAGUA has changed through the years. To illustrate this I selected some reference points and the estimated cost that was declared at that time (table 2.2).

Table 2.2. Estimated cost of the Zapotillo dam according to the water authorities

Date	Estimated cost (millions MXN)	Equivalent to approx. (millions USD) ^a	Exchange rate ^a 1 USD =	Data source
2007 1-August	8,900	812	10.96 MXN	CONAGUA-PR-1
2010 24-March	10,050	801	12.54 MXN	El-Informador, 2010
2012 19-January	12,854	972	13.23 MXN	CONAGUA-PC
2012 October	13,375	1,043	12.82 MXN	CONAGUA, 2012
2014 29-April	17,650 ^b	1,346	13.11 MXN	Serrano-Iñiguez, 2014

^a Calculations made with the exchange rate of the date, with information from <http://www.xe.com> v.i. 2 May 2014.

^b Estimations of the CEA's principal. The 17,650 million include 13,000 million of pesos for the "immediate basic infrastructure" of the dam and the rest for the infrastructure to conduct water to Guadalajara (Serrano-Iñiguez, 2014).

Source: Elaborated by the author with the referred data.

The construction of the dam and the aqueduct to the city of Leon were open to tender to private companies (CONAGUA, 2014b). The winner was a consortium integrated by

¹² The standard was classified as a NMX and not a NOM (official Mexican standard).

the companies La Peninsular Compañía Constructora, FCC Construcción and Grupo Hermes. The company will be paid 2,194 million of MXN (approx. 164.5 million USD¹³) for the design and construction of the dam (CONAGUA-PR-2). The businessman behind this consortium of companies is Carlos Hank Rhon. The Rhon companies have in recent years been winning contracts for important projects, such as the large dams of La Yesca and El Cajón and the development and construction of roadways and bridges.¹⁴

Carlos is the son of Jorge Hank Gonzales, an important politician in the golden age of the PRI who started as an elementary school teacher, went into politics and after few decades became a multimillionaire by being part of the highest circles of the political elite in Mexico. Jorge Hank Rhon, another son of Hank Gonzalez, is a politician in the PRI, and was elected major of Tijuana in 2004. Jorge has been connected with diverse controversies over illegal activities such as money laundering, gambling, and weapons trafficking (García, 2013; Ravelo, 2014).

The aqueduct's contract was won by Abengoa Mexico Abeinsa Infraestructuras Medio Ambiente and Abeinsa and Ingeniería y Construcción Industrial. The aqueduct will be built and operated by the successful tenderer on a 25-year concession. These companies will receive 4,560 million MXN (approx. 345.72 million of USD¹⁵ (CONAGUA-PR-3). Opponents of the project see this concession as disguised water supply privatisation, which contravenes the Mexican constitution's establishment of public property in water.

The inconsistency of the budget is common in this kind of large infrastructure project in Mexico. It derives from a failure of planning, public finances and financial oversight. The public funding of a project is approved with an initial budget. When the works start the budget may rise significantly and require more public funding. In

¹³ Exchange rate of 15 September 2009, 13.34 Mexican pesos per USD, <http://www.xe.com> v.i. 5 May 2014

¹⁴ Information obtained in the website of the company Cerrey, <http://www.cerrey.com.mx/ingles/companies.htm> ; v.i. 5 May 2014.

¹⁵ Exchange rate of 19 September 2011, 13.19 MXN per USD, <http://www.xe.com> v.i. 5 May 2014

the case of a contested large dam, long conflicts produce additional costs, e.g. additional studies, temporary staff, and modifications that arise from political negotiations.

In 2013, federal and local parliament members (diputados) requested the auditing of the project by the federal financial oversight body (Superior Audit of the Federation office, ASF) (Políticas-Públicas, 2013; Ríos, 2014). The ASF conducted an audit of the money spent by CONAGUA on the Zapotillo project in 2012 concluded that it came to 754.77 million MXN (ASF, 2014). The ASF made some cost-saving observations, which were accepted by the CONAGUA. The audit saved 3.73 million MXN (ASF, 2014).

Public financial oversight is in general complicated and with low real effects in Mexico, as pointed out by the researcher Aimée Figueroa (Figueroa, 2013a, 2013b). Due to the semi-autonomous status of public bureaus bureaux, like CONAGUA, oversight can be difficult since the auditing is conducted on an accountability basis and not on performance nor on cost-impact terms. Audit results are often satisfactory even when the project has deficiencies or there is suspicion of corruption. In general, despite the new institutions and rules for transparency and accountability, curbing corruption in Mexico is very difficult.

Given these concerns and the impact on affected towns the conflict over the dam has been long and hard fought. In the process new environmental identities have evolved as resistance to the dam has grown. However the type of resistance has been shaped by the broader national and international context, creating methodological challenges about how to understand the multi-scalar processes shaping the production of environmental citizenships. In the following section I outline the adopted methodological approach.

2.5. Methodological approach

From a theoretical perspective of environmental politics, this thesis posits that environmental citizenship in Mexico should be analysed under the assumption that it is a multifaceted phenomenon. We cannot speak of a prototype of *the* Mexican new environmental citizenship. We should rather think of emerging kinds of citizenship in different scales and contexts. The emergence of environmental citizenship has been produced in multiple spaces through processes of social contestation. Therefore, the analysis should identify these spaces where diverse processes shaping environmental citizenship. I call these spaces “sites of contestation”.

This thesis also posits that authoritarianism is leaving a strong print in environmental citizenship in Mexico, as environmentalism emerged together with the push for democratisation. New forms of environmental citizenship have been shaped in the context of transition from authoritarianism to democracy, in which authoritarian vices coexist with democratic rules and practices, at different scales.

At a national scale, the environmental movement arose in the midst of the transition to a neoliberal model. Triggered by diverse economic and political factors, environmental bureaucracy, regulations and policies were created. Diverse stakeholders participated in the institutionalisation of the environment in Mexico. From a discursive perspective, different environmental discourses competed and interacted. The result was the legitimisation of an environmental discourse that has since been responsible for shaping environmental governance, social movements and citizenship. Consequently, environmental rights were granted to citizens, i.e. the right to a healthy environment and universal access to water.

At a bureaucratic scale, different institutions formed for water management and governance. Water bureaucracy has existed since the 1920s. It was created in the post-revolutionary period and was a keystone of development policies until the end of the authoritarian regime. It became a powerful institution that worked under an engineering approach to develop water infrastructure in Mexico. When the state created the ministry of the environment, the water bureaucracy was attached to it as

a semi-autonomous organism. This encouraged competition between the old and powerful water bureaucracy and the new environmental ministry. Federal legislation about the environment and water and the process of water management was introduced in the context of these competing institutions. In the process, large dam planning decisions and their social negotiations have become a complex struggle between competing approaches to water, the environment and citizenship.

At a civil society scale, the authoritarian regime exerted a rigid control of social opposition and mass media. The state used violent methods to suffocate social movements that could threaten social order. Consequently, civil society has been slow to develop in Mexico when compared to the rest of Latin America. On the other hand, the authoritarian state established a system of public education where universities became sites of free expression and breeding grounds for socially-oriented ideologies. Universities shaped what became known as the “intellectual middle class” that supported oppositional social movements that pushed for the end of authoritarianism. The transition to neoliberalism and its casualties created a climate of social effervescence that contributed to the political transition and the end of the authoritarian regime. Environmentalism emerged within this transition and has grown since then. One of the areas of environmental concern and action has been the defence of environmental rights, particularly the rights of environmental victims, e.g. those affected by large dams. These social movements have shaped and continue to shape environmental citizenship. They produce and reproduce environmental discourses for social action.

At a community scale, the shift to a more democratic national regime has had little impact in small rural communities. Communities like the ones analysed in this thesis have been historically marginalised from national development and public policies. This has generated massive migrations to US and national mega-cities. The migrants’ strong sense of belonging to their original communities has produced the phenomenon of extraterritorial citizenship. When an external national project, like the Zapotillo dam, proposes the relocation of its town, the community becomes environmentally affected. The threatening of relocation disrupts the life of the community that now focuses on resisting the project and saving its town. At this level

I am interested in whether new types of community-scale environmental citizens can arise from these changes.

Finally, at the individual scale, resistance movements have created networks of active citizens. In the case that this thesis studies, the resistance movement has attracted people from diverse backgrounds that have experienced in different ways the transition to a more democratic society, the emergence of environmentalism and the configuration of new social movements, within the particular context of Temaca. There is individual transformation in their lives as they adopt roles of environmental citizens and seek to attract others to their cause.

Table 2.3 summarises the mentioned set of events that resulted from the political and economic transition and impacted environmental governance and citizenship at different scales. Different sets of stakeholders participate in each scale.

Table 2.3. Effects of the transition to the post-authoritarian regime in different scales

<i>Scale</i>	<i>Significant transitions</i>	<i>Stakeholders</i>	<i>Effects on environmental...</i>	
			<i>governance</i>	<i>citizenship</i>
State	Political and economic transition. Emergence of environmentalism in Mexico	Political leaders Political groups Bureaucratic elites and technocrats New environmental groups	Legitimation of environmental discourses that shape citizenship	Establishment of environmental rights
Bureaucracy	Creation of the ministry of the environment. Competition between old and new bureaux	Water bureaucracy Environmental bureaucracy Environmental political groups (e.g. Parties)	Institutions (bureaucracy) Rules (law and regulation) Water governance	Environmental instruments Social negotiations and conflict resolutions as requirements for public projects

<i>Scale</i>	<i>Significant transitions</i>	<i>Stakeholders</i>	<i>Effects on environmental...</i>	
			<i>governance</i>	<i>citizenship</i>
Civil society	Increasing participation and defence of social rights in a more democratic regime. Emergence of environmental social movements	Environmentally affected groups NGOs Experts (e.g. Academics) Other supporters	Space of interaction with authorities Issue-oriented solutions Push for participative governance	Social organisation aimed at: - Defence of environmental rights - New environmental governance
Community	Community mobilisation on environmental issues	Community members with different levels of involvement in the resistance movement	Changes in the community (e.g. structure, organisation)	Profiles of active and non-active environmental citizens
Individuals	Personal reactions to environmental conflicts and movements	Individuals participating in environmental campaigns	Personal changes. Participation in networks of diverse social movements	Different profiles and identities of environmental citizens

Source: Elaborated by the author.

To explore environmental citizenship in Mexico, I adopted a case study approach. This decision was taken considering two criteria. First, case study methodology allows the use of different conceptual lenses to analyse a phenomenon's diverse angles. It tackles complexity in a better way and produces rich and holistic understanding of a phenomenon (Merriam, 2009). Second, cases of resistance and environmental citizenship in Latin America are very similar. The environmental networks that have emerged in the region have revealed similar stories of insurgence, struggles against authoritarian practices and adoption of common environmental discourses. A comparative approach may reveal differences between countries (or between regions within a country) but are unlikely to be as rich or detailed as a single case study methodology can produce. This is not to say the case study is representative of the diverse environmental conflicts in Latin America, instead case studies can provide in-depth information that is likely to have some relevance to other areas.

As any other method, case study approaches entail limitations. An important one is the position of the researcher. The research design reflects their bias and subjectivity and relies on their instincts and skills. In the Preface and Introduction of this thesis I

elaborated on my position within the research and my background and experiences both in environmental conflicts around large-dams and the Mexican transition to post-authoritarianism. To tackle this limitations, the research project was continuously discussed with my panel of supervisors and the academic community of the Department of Environment and Geography of Macquarie University. Likewise, ethics protocols were followed thoroughly.

Further limitations of case study approaches affect the reliability, validity and generalisation of the research results. As said before, the study of environmental citizenship in Latin America is still under construction. Hopefully, the burgeoning research on this field is producing rich empirical data that will be useful for more reliable, valid and generalised conclusions from future research.

To understand environmental citizenship in Mexico, I analyse the case of Temaca's resistance and structure the analysis around five sites of contestation: 1) the constitution, 2) federal acts and bureaucracy, 3) the social movement that supports Temaca's resistance, 4) the community and 5) within individual action. Chapters 3 to 7 address each of these sites of contestation.

The following sub-sections will summarise the methods. The first step in each site was the identification of focal points to observe the phenomena described above. The second step was the selection of data sources to analyse. The third step was the design and execution of the data collection. The final step was the data processing and drafting.

2.5.1. Constitution

The federal constitution was selected as the focus of analysis. It was selected because:

1. Mexico's legal system possesses a Kelsen's pyramid structure, where the constitution sits on top of legislation (Racine-Salazar, 2008; Reyes-Mendoza,

2012). All legal instruments derive from the constitution and must be in harmony with it.

2. The Mexican constitution conceives itself as the top-document for public policy and planning. It contains the country's national agenda and thus it plays an instrumental role in government.
3. The constitution has undergone a remarkable number of amendments since its enactment in 1917. Constitutional reforms are usually products of an intense debate among government, legislators and political stakeholders. The constitution is the site of political struggle *par excellence*.
4. The constitution has a high symbolic value for citizens. It is perceived as the site that contains the nation's collective aspirations and its ideal model of government.

The selection of the constitutional texts to be analysed are as follows. Firstly, I analysed the constitution's latest version at the moment of analysis (9 February 2012) in order to identify the articles related to the environment and water. These were the 4th, the 25th, the 26th articles and the first paragraphs of the 27th article. Secondly, I tracked these articles from their original text in 1917 and the successive reforms up to February 2012 and selected the amendments relevant to the thesis topic. Thirdly, the segments that were relevant for the research were translated into English; the irrelevant segments were excluded. Fourth, these selected segments were then analysed drawing on techniques from critical discourse analysis (CDA).

2.5.2. Federal legislation and bureaucracy

The analysis of this level was organised into four areas:

1. Federal legislation. The federal acts that regulate the environment and water were selected in order to compare competing discourses on these topics.

2. Institutions. The restructuration of the federal environmental bureaucracy that occurred within the transition was reviewed. The analysis was aimed at observing the competition of political stakeholders in the construction of the institutional framework and the terms of the interaction between the environmental and water bureaucracies.
3. Large dams. Besides being a keystone of Mexico's developmental period (20th century), large dams were, on one hand, symbols of power (monumental water infrastructure) and, on the other, projects that produce multiple social casualties, such as the forced displacement of communities and ethnocide. This double meaning of large dams in Mexico was the focus of analysis in this site.
4. The case of the Zapotillo dam project.

Besides the review of academic literature, documentary research was used as a method for data collection. The inputs were from diverse documents of public domain:

- Federal Legislation. Mainly the National Waters Act (version 8 June 2012) and the Ecological Equilibrium and Environmental Protection Act (version 4 June 2012).
- Official documents obtained from government websites, e.g. publications, reports, press conferences and press releases.
- News and investigative journalism.

In order to analyse the perspective of the government in the case of large dams, I interviewed the National Commission on Water and the Ministry of the Environment and Natural Resources in 2011.¹⁶ The interview focused on the federal government's

¹⁶ The interview was also conducted on the Ministry of Energy (Secretaría de Energía), the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación), the Federal Commission on Energy (Comisión Federal de Electricidad), the Mexican Institute for Water Technology (Instituto Mexicano de Tecnologías del

planning of large dams and their regional, social and environmental impacts. Questions were structured in three sections: the past, present and future of large dams in Mexico.

The interview was conducted via e-mail and addressed to the heads of the bureaux bureaux. It was requested through the mechanisms established in the right to petition that the Mexican constitution grants to Mexican citizens (8th article). The Human Research Ethics Committee of Macquarie University resolved that this interview did not required ethics approval as it was requested under my right as a Mexican citizen and the information obtained would be in the public domain (reference: 5201100548-D). The request for the interview was sent on 6 September 2011 separately to the National Commission on Water and the Ministry of the Environment and Natural Resources. In 8 February 2012, I received the answer from the National Commission on Water on behalf of itself and the Ministry of the Environment (reference: "Atenta Nota ORPW/189/2011").

2.5.3. Social movement

This site of analysis focuses on the role of the organised civil society, i.e. the resistance movement that formed to oppose the Zapotillo dam project. The social movement organised around a network model and has the objective of saving the towns of Temacapulín, Acasico and Palmarejo from flooding, through the modification or cancellation of the dam project. This social movement has performed a very successful strategy of communication and has obtained the support of multiple NGOs, academics, journalists and other actors from civil society.

External supporters have played a key role in shaping the environmental discourse of the movement and encouraged its adherence to national and international networks of the environmentally affected. These external supporters have contributed to the

Agua) and the Ecology National Institute (Instituto Nacional de Ecología). This thesis does not report these additional interviews.

resistance movement with technical knowledge and moral support. People from the movement describe them as “experts” or “technical companions”. They make the people from the movement feel more confident, particularly in situations where they are treated as “ignorant” by the technocratic elites and authorities. They play also an important role in the dissemination of the case in academic forums and in the mass media.

I considered that the best way of analysing the resistance movement was to explore it from the perspective of these external supporters through a focus group. To select the participants, I asked members of the movement to suggest the names of people who had been supporting them. From a list of around 20 external supporters I selected ten who represented academics, activists and journalists. The group session was held in Guadalajara City, the 20th of March 2013, with the participation of seven supporters¹⁷. In the organisation of this session, I was assisted by Vania Tirado Morales and Adolfo Hugo Ramírez Ramírez, local professionals in the organisation of academic events.

Figure 2.7 Pictures from the focus group session



Source: Photographs by Vania Tirado Morales, 20 March 2013, Guadalajara, Jal., Mexico.

¹⁷ The other three participants that were invited could not attend the session due to personal circumstances.

2.5.4. Community

The town of Temacapulín was considered the research area for this level. The data was obtained in a participatory rural appraisal (PRA) workshop that was conducted in Temacapulín, on 23 March 2013. Dr Anahí Copitzky Gómez Fuentes, researcher from El Colegio de Jalisco in anthropology and social sciences, contributed as co-organiser of the workshop. A public call was previously made in the town through flyers for volunteering as participants. The requirements for participants were: a) being a resident of Temacapulín; b) being older than 18 years old; c) being literate; and d) not having an active participation in the movement.

Nine participants attended the public call to volunteer as participants. There was just one man and the rest were women of different ages. Seven of them complied with all the requirements. Another participant did not know how to read and write, and was helped by her teammates in some of the activities. The last participant was actually one of the most active participants in the anti-dam movement: María Félix Rodríguez; she volunteered to help in the organisation. Within the session her participation was essential to make the other participants feel comfortable and to encourage their active participation.

The workshop included three activities. The first one was individual. The participants were asked to write a letter to the river (as if the river was a person). The second was to create three posters (one team of three people per poster). The posters' themes were: the Zapotillo dam project; the life of the community before; and the life of the community after. The third one was a group activity and consisted in elaborating a time-line of the main events of the conflict and the personal experiences they wished to add to the timeline story.

Figure 2.8. Pictures from the PRA workshop



Source: Photographs by the author. 23 March 2013, Temacapulín, Jal., Mexico.

2.5.5. Individuals

The research focused on oral histories from members of the movement and some close supporters in order to gain insights into environmental citizenship at the individual level. The analysis aimed at exploring their personal transformations, identities and profiles as environmental citizens. I selected a sample of eight people (four men and four women) who could represent the structure of the movement:

- Residents from Temacapulín and “absent offspring” (people who migrated from the community but are considered as members of it).
- Legal representatives of the movement.
- Experts who are close supporters of the movement.

The data to elaborate these stories were obtained by different means: in-depth interviews, audio recordings from the movement's activities in March-April 2013, publications by the participants and documentary research on news, journalistic research and interviews in the public domain on the Internet.

The participants reviewed their stories. A final draft (either in English or translated into Spanish) was sent via e-mail to each asking them to review it and make any observation and addition they wanted. Their feedback was incorporated into the final text.

Fieldwork activities (focus group, PRA and interviews) were approved by the Human Ethics Research Committee of Macquarie University (reference number: 5201200874 / 5 December 2012).

Figure 2.9. Images from diverse activities of the movement



From left to right: Anahí Gómez, Ma. Félix Rodríguez and Emma Juárez



Presentation of the book *Temaca en el alma*, by Martín Rodríguez



Women from the movement demonstrating in Guadalajara's nocturnal bicycle ride

Source: Photographs by the author. March 2013, Guadalajara, Jal., Mexico

2.6. Concluding remarks

The case of the Zapotillo dam project and the resistance movement of the affected communities must be considered within the historical context of a country that has transited from an authoritarian to a post-authoritarian state. In the relatively immediate context, the project is part of an experimental series by the government to build mega dams in a political climate where the state has lost the total control that it had in the past and civil society is more responsive and better organised to resist imposition by authoritarian practices.

This thesis posits that environmental citizenship in Mexico must be understood within a deeper (rather than an immediate) historical context that explains the prevalence of authoritarian practices after two and a half decades of political and economic transitions. Unlike the rest of Latin America, Mexico had a stable totalitarian presidentialism based on a party-state model, corporatist arrangements, bureaucratic control and populist policies. This regime has been described as an “imperial presidency”, a term that is used along the following chapters.

This authoritarian state existed in Mexico from the late 1920s until 2000, when the PRI (the party-state) lost the presidential elections. The decline of the “imperial presidency” started in the 1980s with the failure of the economic model and the abrupt transition to neoliberalism. Multiple political movements pushed for the abandonment of authoritarianism and produced the democratic transition.

In the post-authoritarian era, there was a new arrangement of elites (de facto powers) that have partially “captured” the state. The transition has produced a period of instability, violence and increasing inequality. The return of the PRI to the presidency in 2012 has tried to re-establish the centralisation of power in the presidential system. New forms of authoritarianism have emerged and coexist with a more democratic and more participative society.

Chapter 3. Constitutional discourse on the environment, water and citizenship

The emergence of environmentalism in Mexico occurred within the context of the decline of the authoritarian state and the beginning of the democratic transition. Environmental discourses became much more prominent in public debates. The environment was adopted as a public policy issue and a new institutional framework was created in this area. The purpose of this chapter is to explore the effects of these changes on the development of opportunities for environmental citizenship at the national constitution, as site of contestation. The spaces for environmental citizenship are shaped by the environmental discourses that have been seen as legitimate in the national agenda. Discourse analysis will be as a tool to explore emerging discourses on environmental citizenship in the federal constitution (analysed in this chapter), federal legislation and bureaucracy (addressed in Chapter 4).

This chapter analyses changes in the federal constitution, as a site of contestation of environmental citizenship. Since its enactment in 1917, the constitution has been in constant change. Its text reflects the results of ideological and political competitions and the document has a significant symbolic value for citizens. It contains the nation's social ideals, aspirations and values. With regard to the environment, the most significant constitutional amendments have been to establish a healthy environment and water access as universal rights and the establishment of sustainability as a characteristic of national development.

The first objective of this chapter is to identify the kinds of environmental discourses that have shaped the construction of environmental governance in Mexico. In particular, the focus is on elements of democratic governance, such as environmental rights and social participation in environmental decisions. Section 3.1 frames in theoretical terms discourses on environment and sustainability. Section 3.2 reviews

the historical events that led to the establishment of policies, institutions and new legislation for the environment in Mexico.

The second objective of the chapter is to examine the constitutional text and its historical construction of environment, water and citizenship. Section 3.3 presents debates on these topics and their resulting constitutional reforms. The rest of the chapter explores the particular issues of democratic participation (Section 3.4) and the establishment of environmental rights (Section 3.5). These framings have shaped the forms of environmental citizenship that have emerged in Mexico.

3.1 Environment and development from a discourse analysis approach

if examined closely, environmental discourse is fragmented and contradictory. Environmental discourse is an astonishing collection of claims and concerns brought together by a great variety of actors
(Hajer, 1995, p. 1)

The decade of the 1970s was crucial for environmental awareness. In those years, the world witnessed catastrophes such as the fire of Cuyahoga River in Cleveland, the oil spill in Santa Barbara, California (1969), the Amoco Cadiz oil spill on the coast of Brittany, France (1978), and the partial meltdown of the Three Mile Island nuclear power plant (1979).

The environment became the object of public attention and action. In 1970 Earth Day was founded and the US Environmental Protection Agency (EPA) was created. In 1972, United Nations created the UN Environment Programme (UNEP) and the report, *The limits to growth*, was published (Meadow, 1972). Since then, research has analysed the environment from many different perspectives.

Regarding environmental discourse, two trends have defined the analysis: Foucaultians and non-Foucaultians. According to Feindt and Oels (2005), Foucaultians are interested in knowledge, the productive function of discourse,

power relationships, and discourse as site of struggle. The non-Foucaultians base their analysis “in linguistics and the pragmatic production of meaning” (Feindt & Oels, 2005).

An example of the non-Foucaultian approach is the work of Harré et al. (1999), who analyse the role of language in environmental discourse, focusing lexical/linguistic resources on environmental problems. They examine the global dimension of the environmentalist discourse and use the term “greenspeak”, which comprises “a worldwide cluster of dialects ... far from the expression of a unified voice” (Harré, Brockmeier, & Mühlhäusler, 1999, p. 20). Harré et al. also explore the rhetorical use of science,¹ environmental narratives, metaphors,² temporal dimensions, ethno-ecology, and the moral and aesthetic domain.

A further example is the research of Schultz that analyses the “language of the commercial users of the environment”. She identifies a language of exploitation that uses three linguistic devices. First, the selection of words according to their connotations; for instance, the use of the word “resource” that leads to the idea of “use” or “exploitation” of such “resource”. Second, the use of euphemisms, which are used to disguise unpleasant features of things. And third, the use of pejoratives to downgrade objects. Schultz concludes:

The future can be won or lost in the language adopted today. To the extent that in the past, society adopted language that overtly or subtly was biased towards exploitation, we have less chance of protecting the environment today. Furthermore, all present environmental issues should be tackled as though we were laying down the ground rules of words and expressions under which future environmental contests will be fought (Schultz, 2001, p. 113).

Whilst appreciating these insights, this thesis leans towards Foucaultian analysis. Foucaultians are concerned for social, cultural and political aspects of environmental

¹ The authors consider that “At a first reading it would seem that Greenspeak is a scientific discourse endowed with the authority of the voice of the natural sciences” (Harré et al., 1999, p. 67).

² Harré et al. posit that environmental discourses use lots of metaphors, which is a sign of ‘underdeveloped conceptual systems’, and as an attempt to “reconcile the seemingly incompatible accreditations of scientific, moral and economic discourses” (Harré et al., 1999, p. 116).

discourse. For instance, Fischer and Hajer (1999) think in terms of identity, social order maintenance and imposition and the redefinition of social relationships (Fischer & Hajer, 1999). According to Hajer, “Environmental discourse is time- and space-specific and is governed by a specific modelling of nature, which reflects our past experience and present preoccupations” (Hajer, 1995, p. 17). These approaches focus on the processes of subject and object formation. Feindt and Oels consider that “like all discourses, environmental discourse constitutes identities, expectations and responsibilities that play their part in disciplining individuals and society at large” (Feindt & Oels, 2005, p. 169).

The work of Dryzek is one of the first to identify diverse types of environmental discourse and has become a key reference for subsequent research. Dryzek distinguishes between those discourses that deny or minimize the existence of an ecological crisis and those that acknowledge it (Dryzek, 1997). The first ones are the *promethean* or *cornucopian* discourse that believe that natural resources are unlimited and humans are capable of manipulating it to attain their ends. McGregor considers this approach as anthropocentric and technocentric, an optimistic response to environmental problems (McGregor, 2000). The opposite is the survivalist discourse that considers that the ecological crisis is imminent, growth is at its limit and the environment needs immediate attention, a much more pessimistic approach.

Of the approaches that acknowledge ecological problems, Dryzek built a classification organized into two dimensions focused on how to address ecological problems. The first dimension is based on whether the environmental discourse is reformist or radical. The second is whether it is prosaic or imaginative. Those dimensions produce four combinations of environmental discourses, according to Figure 3.1.

Figure 3.1. Dryzek’s classification of environmental discourses

	<i>Reformist</i>	<i>Radical</i>
<i>Prosaic</i>	Problem solving Status quo is given, but needs to be adjusted to cope with environmental problems. Emerged in: 1970s Example: Pollution control discourse	Limits and survival Economic expansion and economic growth can exceed the Earth’s capacity. It seeks redistribution of power and growth’s reorientation. Emerged in: early 1970s. Example: Club of Rome, early.
<i>Imaginative</i>	Sustainability³ “Imaginative attempts” to solve conflicts between economy and environment. “Ecological modernisation” is a complementary discourse of sustainability. Emerged in: 1980s Example, Brundtland Report	Green radicalism It is based on the rejection of the basic structure of industrial society and the way it conceptualises the environment. Examples: social ecologists, deep ecologists, eco-Marxists, green romantics, green rationalists and post-modernists

Source: Elaborated by the author with information from (Dryzek, 1997)

The Mexican government’s old-approach most aligns with environmental problem solving discourses. Problem solving discourses “recognize the existence of ecological problems, but treat them as tractable within the basic framework of the political economy of industrial society ... Human interactions with the environment generate a range of problems (rather than one big problem like overshoot of limits threatening social collapse), to which human problem-solving devices need to be turned” (Dryzek, 1997, p. 61). Problem solving requires, according to Dryzek, the coordination of a large number of individuals. He identifies three mechanisms to achieve the necessary coordination that exists within the discourse: bureaucracy, democracy and markets. Bureaucracy (administrative rationalism) implies the dominant government response to problems; democracy (democratic pragmatism) corrects in certain ways

³ Dryzek considers that sustainability “is defined by imaginative attempts to dissolve the conflicts between environmental and economic values that energize the discourses of problem solving and limits” (Dryzek, 1997, p. 14)

the errors of bureaucracy; and markets (economic rationalism) remedy “pathologies” identified in the other two kinds of governance (Dryzek, 1997).

Dryzek points out the tensions between the different discourses (e.g. survivalists vs. Prometheans, sustainable development and ecological modernization). He proposes a discourse of “ecological democracy”, since there is a common thread around “renewed democratic politics”: “Ecological democracy blurs the boundary between human’s social systems and natural systems ... [it] is a democracy without boundaries”, he asserts (Dryzek, 1997, p. 201).

McGregor proposes a different typology of ecosophies and environmental discourses, that he based on the review of the work of Dryzek, Schlosberg, Eckersley, Vincent, Oeschlaeger and Fox (McGregor, 2000). First, he differentiates the anthropocentric from the ecocentric orientations. Within the anthropocentric there are three ecosophies (conservation, human welfare ecology, and preservationism) and three discourses (survivalism, promethean/cornucopian and sustainable development).⁴ On the side of ecocentrism, there are two ecosophies: 1) green materialism in which the discourses of left-greens and eco-anarchism can be framed; and 2) green idealism, which frames the discourses of deep ecology, ecofeminism and moral extensionism (McGregor, 2000). In a later work, McGregor (2004) simplifies his typology in terms of the key narratives, concepts and metaphors. He considers seven key discourses: sustainable development, left-greens, survivalism, eco-regionalism, moral extensionism, ecofeminism, and deep ecology (McGregor, 2004).

The way of tackling the environment-development dilemma has changed over time. Hajer identifies two important moments (Hajer, 1995). The first is the period between the 1970s and 1980s, when the problem was posited in terms of the need of environmental protection in regard to the industrial policy. Pollution was not seen as a structural problem; and that is why the solution was found in *ad hoc* and *ex post* measures (e.g. “end of the pipe”).

⁴ Both the survivalist and promethean/cornucopian discourses share the conservation and human welfare ecology ecosophies. Sustainable development uses the three ecosophies.

The second moment came in the 1980s, when the discourse of ecological modernization became prominent. Hajer defines ecological modernization as “the discourse that recognizes the structural character of the environmental problematique but none the less assumes that existing political, economic, and social institutions can internalize the care for the environment” (Hajer, 1995, p. 25). Ecological modernization uses a utilitarian logic: “pollution control pays”. It has an economic approach of “nature as a public good or resource instead of the idea that nature is basically a free good and can be used as a ‘sink’ ” (Hajer, 1995).

For Dryzek, ecological modernization is about “a restructuring of the capitalist political economy along more environmentally sound lines” (Dryzek, 1997, p. 141). Dryzek uses the metaphor of a “tidy house” (house, in the sense of *oikos*). In this discourse environmental degradation is acknowledged as a structural problem that requires the review of the economy’s organization. Ecological modernization, according to Dryzek, is concerned about “how capitalist society shall be guided into an environmentally enlightened era ... it has a much sharper focus [sic] than does sustainable development on exactly what needs to be done with the capitalist political economy, especially with the confines of the developed nation state” (Dryzek, 1997, p. 143).

In the 1990s environmental discourse took a new turn. The concept of sustainable development (SD, from now on) became the dominant global discourse on the environment. The Brundtland Commission’s report (1987) was formulated and promoted as the SD predominant discourse in a global scale. As such, it has been the subject of a large body of analysis.

Dryzek argues that there is a proliferation of definitions of SD. He compares the definition process of SD with that of “democracy”; both have been politically contested because “sustainable development, like democracy, is a discourse rather than a concept which can or should be defined with any precision” (Dryzek, 1997, p. 125). SD, according to Dryzek, does not operate at the level of policies, it cannot be seen in terms of accomplishment. SD’s legitimate aspiration is the promotion of

economic growth “but guided in ways that are both environmentally benign and socially just” (Dryzek, 1997, p. 129).

In contrast to the enthusiasm for SD claimed by some activists, scholars in general tend to be critical about it; they see the definition of SD as socially constructed in a global struggle in which governments, NGOs and many other stakeholders have participated (e.g. Feindt & Oels, 2005; Hajer, 1995; Purvis & Grainger, 2004) . Grainger highlights that SD entails two contradictory aims: environmental conservation and economic growth. Such contradiction has produced different interpretations; according to Grainger, “from the perspective of developed countries, sustainable development is primarily about conserving the environment, while, as viewed from the developing world, it means the continued pursuit of development with the aim of reducing poverty and attaining the status of modern societies” (Purvis & Grainger, 2004, p. 1).

Grainger considers that the initial definition of SD, formulated by the IUCN in 1980, was indeed the recommendation to developing countries of adopting a “development path” that could avoid the negative impacts on environment that the developed countries had produced. The Brundtland Report, according to Grainger, tried to reconcile the different perceptions of development and emphasized that unless poverty and inequality were tackled in developing countries, environmental degradation could not be stopped. Grainger posits that SD’s definition was formulated in an ambiguous way to be interpreted by the different agendas of the two groups (developed and developing countries). Both visions were included in “Agenda 21” of the 1992 UN conference.⁵ After reviewing the international debate around SD, Grainger concludes that we still do not have a very exact description about what SD should entail: “sustainable development is best understood as consisting of two

⁵ The contradiction prevailed, according to Grainger, in the 1997 UN special session held in New York: “In spite of all this enthusiasm, however, the basic contradiction remains between the two different interpretations of the political ideal of sustainable development. Developing countries want better development, while developed countries want a better environment, preferably without harming their own development prospects too much” (Purvis & Grainger, 2004, p. 8).

different sets of discourses: political and theoretical. They are connected with one another in various ways; indeed, the theoretical discourses are a response to the alleged vagueness of political discourses. However, both are still being perpetuated in parallel and they continue to expand in scope” (Grainger, in Purvis & Grainger, 2004, p. 30).

Peet and Watts highlight that development is a contentious idea (Peet & Watts, 1996). There are two opposed visions: the Western modernist discourse (that seeks to control nature) and the anti-development thinking (that rejects Western rationalities). Both discourses focus on “the people”, thus they are “populist” discourses.⁶ This populism is articulated around the tensions between the power bloc and the people and also around the alignment of the people and specific classes (Peet & Watts, 1996).

Torgerson (1999) also sees in the ambiguity of SD’s definition a “comfortable reconciliation” but in terms of the “prepositions of industrialist ideology”: “Indeed, the discourse on sustainable development includes ambiguities and associations that make for two crucial equations that appear in a more or less explicit manner: // sustainable = sustained // development = growth” (Torgerson, 1999, p. 53). Thus the interpretation of SD depends on where the accent is put: on development or on sustainability.⁷ Torgerson sees in the vagueness of the SD definition a “weakness in terms of technical discourse” but, in contrast, it “has the political virtue of allowing political actors to “proceed without having to agree what to do”. Of course, this political virtue is more attractive to environmentalists focused on the prospect of reform than to environmentalists advocating radical social transformation” (Torgerson, 1999, p. 59).

⁶ According to Peet & Watts, populism implies “a particular sort of politics, authority structure, and ideology in which an effort is made to manufacture a collective popular will and an ‘ordinary’ subject” (Peet & Watts, 1996, p. 26).

⁷ “An accent on development retains an attachment to conventional conceptions of progress while deflecting attention from the challenge of ecological rationality. But be an accent on sustainability suggests that the concept of development must be adjusted accordingly. Placing the accent on sustainability makes sustainable development a green challenge to industrialism” (Torgerson, 1999, p. 63).

Van Zeijl et al. (2008) place the focus of attention on the kind of governance where SD is proposed. They built a four-scenario typology based on these two concepts: SD and governance. In the case of SD they consider a continuum the ends of which are: 1) SD is related to ecological limits and 2) SD “is seen as a normative and fuzzy concept related to well-being and quality of life” (Zeijl-Rozema, Cörvers, Kemp, & Martens, 2008, p. 412).⁸ On the side of governance they differentiate between: 1) “hierarchical governance”, where decisions are made by the lead actor, it is vertical and based on planning and control; 2) and “deliberative governance”, in which decisions are made by multiple actors, relations between actors are horizontal, and there is network management (Zeijl-Rozema et al., 2008). The four scenarios produced by the combination of SD and governance categories are: 1) ecological sustainability-hierarchical, 2) ecological sustainability-deliberative; 3) well-being-hierarchical; and 4) Well-being-deliberative (Zeijl-Rozema et al., 2008).

Recently, in the discourse of international organisations, the notion of SD has been to a certain degree displaced by “green growth”. Green growth or green economy ideas originated in the field of environmental economics. As analysed by Wanner, international organisations, such as the World Bank, UNEP and the Organisation for Economic Co-operation and Development (OECD), highlight the importance of social inclusiveness, human wellbeing and social equity. For instance, the OECD considers green growth not as a replacement of SD, but as “a subset of it” (Wanner, 2014). Wanner considers that the green economy/growth discourse is “an extension of the dominant sustainable development discourse and a new form of “passive revolution” to save capitalist hegemony and its attendant interests” (Wanner, 2014, p. 7). This discourse entails the “decoupling” (delinking) of growth from the use of natural resources and the degradation of the environment; and which would mean, for instance, no environmental impacts, the creation of green jobs or poverty alleviation.

⁸ The first, the ecological sustainability perspective, focuses on the environment, is based on scientific evidence and is ‘objectively measurable’. The second, the ‘well-being perspective’, focuses on the three pillars (i.e. environment, economy and social); it is also characterised by the coexistence of diverse opinions, being ‘contextually determined’, and resulting from ‘societal preferences’ (Zeijl-Rozema et al., 2008).

Wanner considers that the idea of delinked growth is a myth because it “prioritises the economic dimension before all other dimensions of sustainability” and “depoliticises other dimensions of sustainability (social, cultural and political dimensions) which further undermines the possibility for social and environmental justice and sustainability” (Wanner, 2014, p. 15-16).

SD is an important discourse in Mexico. In the next section I will analyse the emergence of environmentalism in Mexico and how it has shaped and been shaped by particular discourses on the environment.

3.2. Emergence of environmental discourses and policy in Mexico

Public concern for the environment arose in the early 1990s, at the end of the corporatist and authoritarian regime, in the context of the transition to liberalism. Many factors drove the environmentalist emergence in Mexico, both at the national and global scale.

One of the external factors that prompted the adoption of environmental policies was the participation of Mexico in international forums on the environment, for example, the 1992 Conference in Río. An even more powerful factor was the need to insert Mexico in international markets as part of the neoliberal transition. The government of president Salinas (1988-1994), for example, sought the creation of the North American Free Trade Agreement (NAFTA) with the US and Canada. Environmental issues were a critical point of the NAFTA negotiations. The US and Canada objected to Mexico's lack of environmental policies. They argued that the existent environmental regulations had “no teeth”, i.e. they had insufficient compliance and enforcement mechanisms (Aceves-Ávila, 2003; Azuela, 2006).

In the midst of the NAFTA negotiations, in April 1992 around 5 km of underground sewage tunnels exploded in Guadalajara. The explosions were produced by an accidental petrol leak from a pipeline of Mexican Petroleum (PEMEX), a government

monopoly, and more than a thousand people died (Azuela, 2006; Micheli, 2000). It was not the first case; several tragic events had shown the lack of attention and concern for the environment (Micheli, 2000), but this one compromised the Mexican government's reputation and supported the arguments about the environmental policy deficiencies that had been discussed for the NAFTA.

To satisfy the demands of the prospective trade partners (the US and Canada), Mexico created the first environmental bureaucracies. Some months after the explosions, the National Institute on Ecology (INE, *Instituto Nacional de Ecología*) and the Federal Attorney for Environmental Protection (PROFEPA, *Procuraduría Federal de Protección al Ambiente*) were created. Gil Corrales consider that these two agencies together resembled the model of the US Environmental Protection Agency (Gil-Corrales, 2007). In that year, 1992, the National Commission for the Knowledge and Use of Biodiversity (CONABIO) was also created.

In 1994 the last president of the PRI, in the old regime, President Zedillo was elected. It was his government that created the institutional framework in order to make the environment a priority policy field. This institutionalisation of the environment took place through the creation of specialised bureaucracy and the enactment of environmental legislation.

At the end of 1994, the Ministry of the Environment (SEMARNAT, from now on⁹) was created. The ministry was designed in a horizontal and decentralised model to incorporate bureaux that already existed in other ministries. In other words, the ministry was formed by a central bureaucracy (the ministry itself, a new bureau) and "satellite bureaux", on specific areas, that belong to the ministry but have certain autonomy:¹⁰

⁹ The SEMARNAT was created as the Ministry of Environment, Natural Resources and Fishery (in Spanish: *Secretaría de Medio Ambiente Recursos Naturales y Pesca*, SEMARNAP). In 2001 it changed its name to Ministry of Environment and Natural Resources (*Secretaría de Medio Ambiente y Recursos Naturales*).

¹⁰ These bureaux are semi-autonomous (*organismos desconcentrados* or *descentralizados*) in operational and financial terms, but belong to the SEMARNAT.

- INE, PROFEPA and CONABIO,¹¹ mentioned above.
- CONAGUA and the Mexican Institute on Water Technologies (IMTA, *Instituto Mexicano de Tecnologías del Agua*).
- The National Institute of Fishery, formerly Fishery Ministry.

The ministry's structure was modified in 2000, when Vicente Fox took up the presidency. Firstly, the fishery bureau was transferred to the Ministry of Agriculture.¹² And secondly, two new agencies were created and attached to the SEMARNAT as "satellite-bureaux": the National Commission of Protected Natural Areas (CONANP, *Comisión Nacional de Areas Naturales Protegidas*) and the Forest National Commission (CONAFOR, *Comisión Nacional Forestal*) (Gil-Corrales, 2007).

The new ministry became, very soon, a macro-organisation with around 40,000 staff.¹³ In general, these bureaux have formed highly skilled teams, developed environmental information and assessment systems and have conducted diverse kinds of environmental policies based on international good practices. In addition, the ministry has worked intensively on an environmental diplomacy agenda that has created a positive international image for Mexico. Such is the case of global action on climate change. The COP-16 (2010 UN Climate Change Conference) was held in Cancún and the active promotion of international cooperation was acknowledged by the UNEP in 2011, when President Calderon was honoured as a "Champion of the Earth", in recognition of his environmental policy leadership. According to the cooperation index built by Baetting et al., Mexico is part of the group of most

¹¹ This bureau is an 'inter-ministry commission'; according to Gil Corrales (Gil-Corrales, 2007) it can be considered as having the same rank as the other bureaux.

¹² Consequently, the word "fishery" was removed from the name of the environment ministry; ever since it has been the Ministry of Environment and Natural Resources, SEMARNAT (*Secretaría de Medio Ambiente y Recursos Naturales*). In the same reform, the agriculture ministry changed its name to SAGARPA (*Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación*)

¹³ Mumme and Lybecker reported 39,000 in 2000; 25,000 of whom work in the CONAGUA (Mumme & Lybecker, 2002)

cooperative countries in international climate change action (Baettig, Brander, & Imboden, 2008).

Regarding environmental legislation, Mexico had already a federal act for the environment; it was the Ecological Equilibrium and Environmental Protection Act (EEPEA, from now on) enacted in 1988. Nevertheless, this act had been practically unused because it had not established effective mechanisms of enforcement or a bureaucracy to act as enforcer (Gil-Corrales, 2007).

When the SEMARNAT was created, it promoted the reform of the EEPEA. To elaborate the proposal of the act's reform, the SEMARNAT did not follow the traditional legislative path, which would be the elaboration of a bill the president submitted to the federal Congress (parliament). Instead, the SEMARNAT decided to have a participative process and, together with the federal Congress, made a public call to discuss the environmental legislation. The call was welcomed and attended by many participants from the civil society. An intense debate followed and, after more than 18 months, a bill was submitted to the Congress and approved at the end of 1996 (Azuela, 2006; Bustillos-Roqueñi & Benavides-Zapién, 2000). According to Azuela, the public debate focused not only on the act itself but demonstrated existing concerns of society for the environment. The new EEPEA was not reformed, but was rather rewritten and its rhetoric adjusted to the predominant international trends of the 1990s (Azuela, 2006).

Ever since, environmental legislation has expanded considerably. Table 3.1 lists the existing federal legislation on the environment and when it was enacted.

Table 3.1. Federal legislation (acts) related with the environment in Mexico

<i>Created in</i>	<i>Act</i>
1988 28 Jan	General Act of Ecological Equilibrium and Environmental Protection (<i>Ley General de Equilibrio Ecológico y Protección al Ambiente</i>) First version
1992 1 Dec	National Waters Act (NWA, <i>Ley de Aguas Nacionales</i>)
1996	General Act of Ecological Equilibrium and Environmental Protection

Created in	Act
13 Dec	(EEEPa, <i>Ley General de Equilibrio Ecológico y Protección al Ambiente</i>) New version
2000 3 Jul.	Wild Life General Act (<i>Ley General de Vida Silvestre</i>)
2001 7 Dec.	General Act on Sustainable Forestry Development (<i>Ley General de Desarrollo Forestal Sustentable</i>)
2001 7 Dec.	Act on Sustainable Rural Development *
	(<i>Ley de Desarrollo Rural Sustentable</i>)
2003 8 Oct.	General Act for Waste Prevention and Integral Management (<i>Ley General para la Prevención y Gestión Integral de los Residuos</i>)
2005 18 Mar.	Act on Biosecurity of Genetically Modified Organisms (<i>Ley de Bioseguridad de Organismos Genéticamente Modificados</i>)
2005 22 Aug.	Act on Sustainable Development of Sugar Cane *
	(<i>Ley de Desarrollo Sustentable de la Caña de Azúcar</i>)
2007 24 Jul.	Federal Act of Sustainable Fishery and Aquaculture (<i>Ley federal de Pesca y Acuacultura Sustentables</i>)
2008 28 Nov.	Act for the Sustainable Use of Energy *
	(<i>Ley para el Aprovechamiento Sustentable de la Energía</i>)
2012 6 Jun.	General Act on Climate Change (<i>Ley General de Cambio Climático</i>)
2013 7 Jun	Federal Act on Environmental Liability (<i>Ley Federal de Responsabilidad Ambiental</i>)

* Acts not considered in environment legislation's list in the website of the SEMARNAT

Source: Elaborated by the author with information from SEMARNAT¹⁴ and the Federal Representatives House (*Cámara de Diputados*).¹⁵

Since the 1990s, then, environmental issues have become prominent. Mexico has witnessed a boom of NGOs, academic communities, rights defendants, private

¹⁴ SEMARNAT, *Leyes Federales* in

<http://www.semarnat.gob.mx/leyesy normas/Pages/leyesfederales.aspx> v.i. 17 September 2013

¹⁵ Cámara de Diputados, *Leyes Federales Vigentes*, in

<http://www.diputados.gob.mx/LeyesBiblio/index.htm> v.i. 17 September 2013

advisories and many other social organisations that advocate for the environment and work at local, national and international levels. Environmental discourses are not only of the environmental bureaucracy, but also of society in general.

Despite the policy progress of the environmental bureaucracy, overall environmental performance is far from that desired. Indeed, Rivera and Foladori (2006) reported a significant deterioration of the environment situation in Mexico; they highlight the lack of transparency in environmental information (Rivera & Foladori, 2006). Sunyer and Peña analysed the 15 years since the adoption of the sustainable development paradigm in Mexico, and conclude that there is no reason for optimism since policy has produced very unsatisfactory outcomes (Sunyer & Peña, 2008).

3.3. Constitutional amendments on the environment

What kind of environmental discourse was legitimised during these environmental decades in Mexico? Which elements have shaped and been shaped by the emerging environmental citizenship, particularly in the case of water? These two questions require an analysis of the constitution, the EEEPA and the National Waters Act (NWA), as they are the principal legal instruments on the subject and have significant symbolic value. In the remainder of this chapter I focus on the constitution and turn my attention to the EEEPA and NWA in chapter 4.

Beyond its legal and instrumental role, the constitution is a political arena around which the public debate and political and ideological struggles take place. Following Van Dijk's definition of ideology, the constitution in Mexico can be interpreted as a general system of shared ideas that are used to interpret and cope with social events and situations (van Dijk, 2011). In their survey of the attitudes, perceptions and values concerning the culture of the constitution in Mexico, Concha et al. report that 51% of the participants said the constitution is "very important" and for another 37% is "important". Participants were asked "From the following phrases, which one describes the constitution best?" and the results were: 36% "it protects my rights",

25% “it organises government”, 22% “it is not respected”, 10% “it changes all the time” and 2.6% “it is useless” (Concha-Cantú, Fix-Fierro, Flores, & Valadés, 2004).

The Mexican constitution has been subject to an impressive number of amendments, despite the complicated and lengthy process of change.¹⁶ From February 1917 to September 2012, only 29¹⁷ of the 136 constitutional articles have not been modified. The rest of them have been amended a total of 535 times. The Mexican jurist Carpizo reports 502 amendments between 1920 and 2000, positing that is a very “pawed” constitution (Carpizo, 2011). Any new text or amendment is the product of an intense political debate.

My objective in this analysis of the constitution is to identify the current sections that address the environment and observe how and when they were introduced by tracking back to the original 1917 text and all successive changes. Four articles of the constitution were selected:

- The 4th article, which is part of the human rights chapter and states the rights to clean environment and water.
- Articles 25 and 26, which establish the “democratic planning system of national development” (C-2012) and the State’s responsibility for conducting “sustainable” national development.
- A part of the 27th article, which addresses public and private property in water and the right to water of landowners and communities.

¹⁶ Any modification has to be approved by: a) two thirds of the federal legislature, the *Congreso de la Unión*, which is formed by two cameras: *Cámara de Diputados* (Representative’s House) and the Senate; and b) the majority of the 32 local (state) legislatures (constitutional article 135).

¹⁷ Articles that have not been modified: 7, 8, 9, 12, 13, 23, 38, 39, 40, 47, 50, 57, 62, 64, 68, 80, 81, 86, 91, 118, 120, 121, 124, 125, 126, 128, 129, 132 and 136. Information obtained from http://www.diputados.gob.mx/LeyesBiblio/ref/cpeum_art.htm, v.i. 4 September 2012.

The record of changes to these articles can be observed in the Table 3.2. The date corresponds to the publication in the *Diario Oficial de la Federación* (DOF, Official Journal of the Federation), which is the journal where approved legislation is made public. The rows in the table with an asterisk indicate that the amendment was not considered relevant for the research and therefore it was excluded.

Table 3.2. Summary of the analysed constitutional amendments

Date	Article				Summary of the amendment	
	4	25	26	27		
5 Feb 1917					Original text	
10 Jan 1934				X	Minimal changes, mainly style correction	*
9 Nov 1940				X	It bans the existence of concessions in oil and hydrocarbons	*
21 Apr 1945				X	Redefinition of private and public water property	
29 Dec 1960				X	About the State's exclusivity of electricity's conduction and distribution	*
6 Feb 1975				X	The exclusive attribution of the State over resources exploitation was reworded. It introduced nuclear energy and the State's exclusive attributions on it.	*
6 Feb 1976				X	Additions to introduce settlements planning.	
3 Feb 1983		X	X		Introduction of the democratic planning system	
10 Aug 1987				X	Introduction of the "preservation and ecological conservation" as a restriction of private property	
6 Jan 1992				X	Suppression of the right for rural communities to be provided of enough water	
28 Jun 1999	X	X			The environment as a human right was established	
7 Apr 2006			X		The national system on statistic and geographical information was created	*
8 Feb 2012	X				Water as a human right was granted	

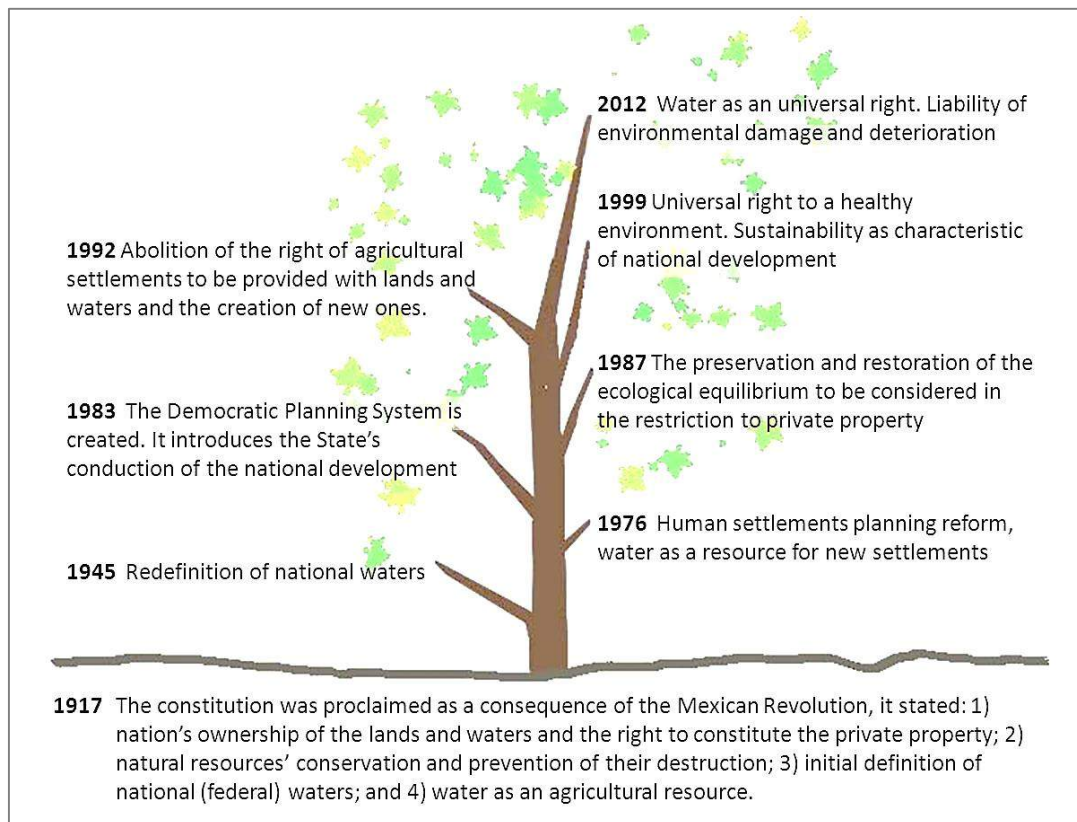
* Not relevant for the current analysis.

Source: Elaborated by the author with information from the federal legislature site¹⁸ and the DOF

In summary, there have been seven relevant constitutional changes regarding the environment and water in Mexico. Figure 3.2 depicts the chronology of these reforms (see also Table 3.1). I describe each amendment below.

¹⁸ <http://www.diputados.gob.mx/LeyesBiblio/index.htm>

Figure 3.2. Constitutional amendments for the environment and water (1917-2012)



Source: Elaborated by the author.

The 1917 text contains four statements relating directly or indirectly to the environment: 1) the state's property of lands and waters; 2) the responsibility for the conservation of natural resources and the prevention of their destruction; 3) the definition of public, state and private property of water, and 4) the right to water as an agricultural resource. There were practically no changes during the next half-century. The only one, in 1934, was a style correction and rewording of the definition of "national waters".

The 1976 reform was related to human settlement planning. The 1983 amendment introduced what is known as the Democratic Planning System, which is the mandatory planning system for the federal government. The National Development Plan and its particular programs are structured hierarchically to guide public action.

The notion of ecology appeared for the first time in 1987, when the preservation and restoration of ecological equilibrium was included as a restriction on public property.

In the 1999 reform, the right of enjoying a healthy environment was granted as a human right and national development was declared to aim at sustainability. This reform was promoted by the Green Ecologist Party of Mexico (PVEM).

The 1992 and 2012 amendments refer to water. The 1992 amendment suppressed the right of agricultural settlements to be provided with land and water; this reform must be understood in the context of the creation of the National Waters Act and the neoliberal policies of water decentralisation. The 2012 amendment established access to water as a human right in Mexico.

The analysis identified three key topics addressed by the constitution relating to the environment. The first one is the acknowledgement of the environment as a social responsibility to be managed with a sustainability approach. The second key topic regards environmental citizenship, e.g. environmental rights and citizen participation. A third, the property of water and its fragmentation from the environment, will be addressed in the next chapter.

3.4. State environmental planning

The first reference to the environment in the constitution was included in the 27th article when the constitution was enacted in 1917.¹⁹ This article establishes that “Ownership of the lands and waters within the boundaries of the national territory is vested originally in the Nation, which has had, and has, the right to transmit title thereof to private persons, thereby constituting private property” (C-1917, Art. 27, 1st paragraph). In the second paragraph, the constitution states that private property can be “appropriated” in case of public utility (expropriation). The third paragraph contains the restrictions that the state can impose on private property:

The Nation shall at all times have the right to impose on private property such restrictions as the public interest may demand as well as the right to regulate the enjoyment of those natural resources which are susceptible of appropriation, to make an equitable distribution of public

¹⁹ This is one of the most important articles of the constitutions because of the social content derived from the revolution.

wealth and to ensure their conservation. With this end in view, necessary measures shall be taken ... to create new agricultural population centres with the indispensable lands and waters; to encourage agriculture and to prevent the destruction of natural resources (C-1917, Art 27, 3rd paragraph).

In other words:

- 1) Natural resources are susceptible of appropriation (3rd paragraph), that means they are considered as a “public utility” (2nd paragraph).
- 2) Their enjoyment is regulated with two purposes: “make a distribution of public wealth and ensure their conservation” (3rd paragraph).
- 3) There will be public action (“necessary measures will be taken”) for preventing their destruction.

The focus of attention in the text is the “natural resources”, which are seen as public goods such that their enjoyment should be conserved and distributed among society (since they are part of the public wealth).

In 1976, within the introduction of the human settlement planning reform, the paragraph was modified as following (the new text is in bold font):

The Nation shall at all times have the right to impose on private property such restrictions as the public interest may demand as well as to regulate, **for social benefit**, the enjoyment of those natural resources which are susceptible of appropriation, **in order to** make an equitable distribution of public wealth, to ensure their conservation, **to achieve a balanced development of the country and the improvement of the living conditions of rural and urban population. Consequently, appropriate measures shall be issued to put in order human settlements and to define adequate provisions, reserves and use of land, water and forest, in order to carry out public works and to plan and regulate new settlement's creation, conservation, improvement and growth;** ... [C-1976, 27th article, 3rd paragraph]

The inclusion of “for social benefit” is not relevant since the paragraph is already speaking of the “public interest”. The relevant aspect is the “balanced development of

the country”. “Balanced”, relative to what? Since the next segment addresses the “rural and urban population”, we can suppose that this balance emphasises geographical decentralisation and land planning (which is the context of the amendment) rather than the environment and what we understand today as sustainable development.

It was not until 1987 that the constitution was reformed to include the concept of “ecological equilibrium”. The text had the following addition:

The Nation shall at all times have the right to impose on private property such restrictions as the public interest may demand ... Consequently, appropriate measures shall be issued to put in order human settlements and to define adequate provisions, reserves and use of land, water and forest ...; **to preserve and restore the ecological equilibrium;** ... (C-1987, 27th article, 3rd paragraph).

This reform is relevant in terms of environmental discourse because it acknowledges the existence of environmental problems, i.e. an ecological equilibrium that can be broken and thus needs to be restored. There has been no further addition or modification of this third paragraph’s segment.²⁰ The current text is then:

The Nation shall at all times have the right to impose on private property such restrictions as the public interest may demand as well as to **regulate**, for social benefit, the **enjoyment** of those **natural resources** which are susceptible to appropriation, in order to make an **equitable distribution of public wealth**, to **ensure their conservation**, to achieve a balanced development of the country and the improvement of the living conditions of the rural and urban population. Consequently, appropriate measures shall be issued to put in order human settlements and to define adequate provisions, reserves and use of land, water and forest, in order to carry out public works and to plan and regulate new settlements’ creation, conservation, improvement and growth; to **preserve and restore the ecological equilibrium;** division of large rural estates [*latifundios*]; ... development of the small rural property; to encourage agriculture, livestock farming, silviculture and other economic activities in rural areas, and to **prevent the destruction of natural resources** and damages that property may be detrimental to society. (C-2012, 27th article, 3rd paragraph).

²⁰ The analysis was finished in September 2013

No constitutional reform addressed the environment directly between 1987 and 1999 even though that period corresponds to the establishment of a new institutional framework for the environment (reviewed above).

The 1999 constitutional reform had as a principal purpose the granting to citizens the right to a healthy environment (this will be discussed below). The bill included the addition of the words “and sustainable” to the 25th article. This is the first paragraph, where the new text was inserted:

25th Article.

It is incumbent upon the State to conduct national development in order to guarantee it is integral **and sustainable**, it strengthens National Sovereignty and its democratic regime and, through the promotion of economic growth and employment and a more fair distribution of income and wealth, it allows the exercise of freedom and dignity of all individuals, groups and social classes, whose security is protected by this Constitution (C-1999, 25th article, 1st paragraph).

This article and the next one (the 26th) address the responsibility of the state in governing by public policy. They were introduced in the 1983 amendment. The context was the economic crises of the previous years, when the economic model proved its inefficiency and the country declared bankruptcy. It was widely believed that strategic decisions that had been made thoughtlessly by the presidency’s absolute powers were responsible for the crises. The national planning system was introduced to reduce discretionary decisions and frame government action in long-term plans.

In my opinion, there is an inconsistency between the discourse of these two articles and the following development of historical events. The notion of planning and the hierarchical structure of the “national planning system” came very late, as the country was about to move abruptly to neoliberalism. The post-revolutionary economic and political system had been designed around the total control of the state, with influences from socialist trends. “Economic planning” was the term used in the Soviet Union to describe the centralised model where the state had total control.

The 25th article describes a centralised and interventionist model. The state must *conduct* national development (1st paragraph), *plan, conduct, coordinate* and *guide* the economy activity (2nd paragraph) and has the exclusivity (public monopoly²¹) on *strategic areas*²² (4th paragraph). It is a State that *organizes* priority areas for development (5th paragraph), *supports and promotes* private and social enterprises (6th paragraph), facilitates the *expansion* of the social sector's activities (understood as peasants and workers, 7th paragraph) and *protects* economic activities (8th paragraph). It is the state that *stimulates* priority areas of the economy (5th paragraph) and law *encourages* private economic activities (8th paragraph), with the condition that *regulation* and *promotion* must respect *freedoms* (2nd paragraph).

From a discourse perspective, the implication for environmental policies is that sustainable development is subject to the state that controls everything and not to the deliberative democracy that good practices and discourses on sustainability suggest. In terms of environmental citizenship, it reproduces the disproportionate power relationships of a totalitarian state and powerless subjects.

The 26th article attempts to moderate the notion of a control state; it introduces democratic elements into the discourse. The article is about what was called the *democratic planning system of national development*. The full text is reproduced and the paragraph numbers put on the left margin.

26th Article

(1st) The State shall organize a democratic planning system of national development, which shall offer solidity, dynamism, continuity and equity to the economic growth for the Nation's independence and political, social and cultural democratization.

²¹ In general, the Mexican government avoids the use of the word "monopoly" because the constitution forbids the existence of monopolies (C-2012, 28th article). However the "strategic areas" listed in the 28th article are state monopolies, from a technical point of view.

²² The strategic areas are: "post, telegraph, oil and its derivatives, basic petrochemical industries, radioactive minerals, generation of nuclear energy, generation of electricity and other areas defined by the Congress of the Union" (C-2012, 28th article).

- (2nd) The aims of the national project contained in this Constitution shall determine planning objectives. National planning shall be democratic. Through the diverse social sectors' participation, it shall collect the aspirations and demands of society to include them into the development plan and programs. There shall be a development national plan to which all the programs carried out by the Federal Public Administration [federal government] shall be compulsory subjected.
- (3rd) Law shall entitle the Executive to establish the appropriate procedures for participation and popular consultation in the national democratic planning system, as well as the criteria for the design, implementation, control and evaluation of the development plan and programs. Likewise, it [the law] shall lay down the agencies that are responsible for the planning process and the basis on which the Federal Executive shall coordinate, through agreements made with state governments, and lead and agree with private persons the actions to follow in order to elaborate and instrument it [the planning].
- (4th) In the democratic planning system, the Congress of the Union [legislative power] shall intervene as the law defines.

(C-1999)

According to this text, planning is “democratic” because it “collects” the society’s “aspirations and demands” and includes them in the plans (2nd paragraph). Apart from consultation, the constitution does not establish mechanisms of active public participation in planning. As pointed out by García Bátiz (2006), in her research about environmental policy planning, Mexican planning model is vertical and highly centralised. Participation is done through “consultation bodies” such as unions, peasant organisations, academic institutions, business associations, and other social groups that attend the “popular consultation forums” organised by the government (García-Bátiz, 2006).

3.5. Introduction of environmental rights in the constitution

The most significant reforms for the environment were the granting of environmental rights in 1999 and 2012; the former as a general right to a healthy environment and the latter being specific to water. From a perspective of environmental citizenship theory, the constitution adopted a liberal approach because it establishes rights for the citizens, rather than obligations.

In the history of the constitution the 4th article has been where new rights have been added; for instance: gender equality, family rights, and access to health protection, decent housing and culture. This article is part of the Human Rights and Guarantees chapter. In 1999, a new paragraph was added to this article:

Any person has the right to an appropriate environment for his/her own development and wellbeing. (C-1999, 4th article, 5th paragraph)

With this reform, Mexico observed the first principle of the 1972 Stockholm Declaration of the UN Conference on Human Environment, which establishes that: “Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations ...”.²³

Nevertheless, as pointed out by environmental law researchers (e.g. Carmona-Lara, 2002), the 1999 Mexican amendment should have included enforcement mechanisms. It was 13 years later, in 2012, when a new reform²⁴ solved the right’s lack of guarantee. The new text of the 5th paragraph was:

Any person has the right to a **healthy**²⁵ environment for his/her own development and wellbeing. **The State will guarantee the respect to such right. Environmental damage and deterioration will generate a liability for whoever provokes them in terms of the provisions by the law** (C-2012, 4th article, 5th paragraph).

The declaration of sustainable development and the right to a healthy environment in the constitution did not entail a major debate in the legislature. For instance, in the representatives house (*Cámara de Diputados*), the initiative was approved by 417 votes for and zero against (*Cámara-de-Diputados*, 1998), the representatives of all parties agreeing that it was a positive amendment for the environment. The environment as a public interest issue was already legitimised in Mexico with the

²³ <http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503>

²⁴ The 2012 reform also granted water as a human right, as will be analysed in the following section.

²⁵ The word ‘appropriate’ was substituted by ‘healthy’ in this reform.

institutional framework established by the bureaucracy and specific legislation described above. The right to a healthy environment was not problematic for the legislative members; it was formulated as an aspirational and idealistic goal, like equality, freedom or dignity. In Latin American culture, discourse is populated by promises and euphemisms that usually do not transcend to the life of citizens; as the common expression says: “the devil is in the detail”.

The case of the 2012 amendment that granted the right to water access was very different. From its beginning, the constitution included a disposition to guarantee “lands and waters” for new agricultural centres, towns, ranches and communities. This guarantee was included in the 27th article, within the restrictions on private property,²⁶ in the third paragraph:

The Nation shall at all times have the right to impose on private property such restrictions as the public interest may demand ... necessary measures shall be taken ... to create new agricultural population centres with the indispensable lands and waters ... Towns, ranches and communities that have no lands and waters, or do not possess them in sufficient quantities for the needs of their inhabitants, shall be entitled to grants thereof, which shall be taken from adjacent properties, respecting at all times the small land ownership” (C-1917, 27th article, 3rd paragraph).

In 1976, with the human settlement planning reform, a similar disposition was added in the same paragraph (new text in bold):

The Nation shall at all times have the right to impose on private property such restrictions as the public interest may demand ... **Consequently, appropriate measures shall be issued to put in order human settlements and to define adequate provisions, reserves and use of land, water and forest, in order to carry out public works and to plan and regulate new settlement’s creation, conservation, improvement and growth** (C-1976, 27th article, 3rd paragraph).

The text can be interpreted as a right to access water that is granted to communities. In a broad sense, water and forest are part of the “land” that is required by

²⁶ This is the same paragraph analysed in section 3.2.3 in the case of the natural resources’ concern.

agricultural areas and human settlements. It is necessary to remember that article 27 is where the agrarian demands of the revolution were satisfied. It is this article that grants the right to land and collective property (*ejidos*) for the peasant sector. In this context, water is viewed as an input for agricultural activities. Thus this cannot properly be seen as a universal human right of access to water, but rather as the right of peasants to access the resources they need for their productive activities.

Both the C-1917 and C-1976 dispositions were deleted in 1992. The suppressed text was: “to create new agricultural population centres with the indispensable lands and waters ... Towns, ranches and communities that have no lands and waters, or do not possess them in sufficient quantities for the needs of their inhabitants, shall be entitled to grants thereof, which shall be taken from adjacent properties, respecting at all times the farming cooperatives’ ownership” (C-1976, 27th article, 3rd paragraph).

Why did the constitution delete this right? I could not find any academic analysis in this regard. I believe this decision obeys the transition from the social left ideology of the post-revolutionary period to neoliberalism. The objective was to reduce state responsibilities, particularly those protectionist commitments imposed under the “agrarian reform”. CONAGUA had been created in 1989 with the purpose of decentralising the water management. CONAGUA promoted the updating of water legislation and consequently the National Waters Act was enacted in December 1992. The constitutional reform that suppressed this right was approved ten months before, in January. The National Waters Act regulates urban and agricultural water use, but does not mention any guarantee of water access for agricultural centres or human settlements.

The establishment of water as a universal human right in Mexico was a matter of public debate for a long time, before its inclusion in the constitution in 2012. From 2006 to 2011, eight bills were presented in the representative’s house (*Cámara de Diputados*) by members of the green and left-wing parties (PVEM, PRD, PT and Convergencia) (Cámara-de-Diputados, 2011a). Most of the initiatives proposed only the inclusion of water as a human right. The initiative presented by the PT (party of

the workers)²⁷ proposed the prohibition of water privatisation and the respect of indigenous and rural and small communities regarding water. The initiative mentioned the case of those affected by dams, among others. These additional proposals were removed from the bill, which was objected to by the PT in the session debate. Only one representative from the PRI debated the PT saying that the reform intended “that all Mexicans have also the right to water, that vital liquid that all and each of the citizens must have that right. / It is a social issue, it is a cultural issue. It is not an economic issue. Let us not get confused” (Cámara-de-Diputados, 2011b). Right-wing representatives (from the PAN) voted against the bill without providing any argument (Cámara-de-Diputados, 2011b). The bill was approved and sent to the Senate, which approved it unanimously. In the Senate debate, the only objection was presented by a left-wing representative (Ricardo Monreal, from the PRD), who argued that the issue of water needed much more than the establishment of the right to access water (Cámara-de-Senadores, 2011).

The constitution was then amended to introduce a new paragraph in the 4th article:

Any person has the right of access, provision and sanitation of water for personal and domestic consumption in a sufficient, healthy, acceptable and affordable manner. The State will guarantee such right and the law will define the basis, supports and modalities for the equitable and sustainable access and use of the hydric resources, establishing the participation of the Federation, federal entities and municipalities, as well as the citizens’ participation for the achievement of such purposes (C-2012, 4th article, 6th paragraph).

This constitutional amendment also established that the legislature had to enact new legislation on water, which will be called the Waters General Act, before 8 February 2013. This has not occurred, not at least until June 2014, when this chapter was finished. A new act on water could change the institutional framework and adopt different discourses regarding environmental citizenship.

²⁷ The bill was proposed by the representatives Cárdenas Gracia and Fernández Noroña

3.6. Concluding remarks

The decision to analyse the constitution was based on the importance of this document, not only in juridical terms, but also as one of the most important political arenas for public debate. It is the site of struggle where different discourses of society are expressed and in which the predominant discourse becomes the legitimised discourse that shapes society, citizens and their subjectivities.

Before starting the analysis, I was aware of the importance of the establishment of environmental rights in 1999 and 2012 and its positive impact in the shaping of new forms of environmental citizenship. Thus, the first objective was to analyse the debate behind these two constitutional reforms. The second objective had to do with the expectation of appreciating in the constitutional discourse the historical changes through which Mexico has lived in terms of environmental concern and policies. I expected to find a fingerprint of the environmental shift that Mexico experienced during the 1990s, when technocrats and academics raised the environmental concerns that were being discussed in international forums and tried to address them in the newly created environmental bureaucracies. I also expected to observe the abandonment of the old authoritarianism and the adoption of a more democratic discourse, at least in terms of the environment.

In general, the results of the analysis are disappointing when compared with initial expectations. Apart from the establishment of a healthy environment and access to water as universal rights, the emergence of environmentalism in Mexico has not produced significant changes in the constitution that could enable these rights, in structural terms. The debate occurred in the secondary legislation, i.e. in federal acts, which will be analysed in the next chapter. Nevertheless, as the analysis will show, the federal acts follow two different and sometimes contradictory paths. Two competing discourses create an ambiguous legal framework for environmental citizenship, hindering the environmental rights that were granted in the constitution.

Regarding environmental rights (the key element for environmental citizenship, from a liberal perspective), the analysis showed:

1. The establishment of the right to a healthy environment (in 1999) was approved without objections, because the environmental discourse had already been legitimised through the institutional framework created for the environment since the early 1990s. The statement included in the constitution had no policy implications and lacked guarantee mechanisms, which was not solved in the constitutional text until 2012.
2. The establishment of the right to access water was the product of a long debate (e.g. 2006-2011 in the representatives' house) because it had policy implications. There were two positions. The first one wanted to keep the right to access water in abstract and aspirational terms (as occurred with the right to a healthy environment). The second position supported a structural change based on the consideration of water as a social good that could not be privatised and a new water governance model in which society and those affected by water policy were included in decision-making. The reform that resulted from the debate favoured the first position and it did not produce any structural change to water governance.
3. The reform that included water as a human right established that the water legislation (National Waters Act) had to be updated, but this has not occurred. I assume that this has been debated ever since and CONAGUA has an important role, as the predominant technocratic elite. A new act could introduce structural changes and establish a new water management model.

Promoters of environmental citizenship in Mexico have adopted a discourse of rights and seek to defend those environmental rights. Nevertheless, there is a problem of the enforcement of rights in Latin America. The establishment of a right in the constitution is very far from being guaranteed in reality. In a context of inequality, slow violence against the poor, and a society in which the state is still the predominant actor in many aspects, the rights of the citizens are continuously threatened by the state, or by governments that have been kidnapped by de facto powers. The new environmental citizenship in Mexico (and I believe in all Latin

America) is therefore focused on defending the rights of citizens from public authorities.

Environmentalism in Mexico has not yet produced new environmental governance, in the sense of collaborative “good” governance. The transition to neoliberalism did not produce a significant loss of control by the state, regarding public policy. Mexico governs through public policy designed and implemented within the “democratic national planning system” which is not in fact democratic (in the sense of deliberative, collaborative or participative). It is a state-centred, top-down, hierarchical model. Environmental citizens cannot expect to be active participants in environmental policy-making according to this model. In the next chapter I will explore the key bureaucratic institutions that have accompanied and emerged from struggles over the constitution.

Chapter 4. Acts and institutions of water in Mexico

This chapter explores the acts and bureaucracy that were created to govern water, and the implications of these institutions for environmental citizenship. In the 1920s, the post-revolutionary state adopted water as a key policy for satisfying agrarian demands for development; demands that had contributed to the revolution's uprising. Water policy was also a priority in the developmental period that started in the 1940s. The government aimed to build the hydraulic infrastructure required by industrialisation and national development. Large dams exemplify this kind of infrastructure. In addition to its role in development processes, large dams became symbols of power. They were seen by the authoritarian state as monumental works.

Throughout these decades of post-revolutionary and authoritarian regime (1920-1990), a water bureaucracy emerged to play a crucial role within the federal public administration. Water bureaucracy consolidated by a technocratic and dominant bureaucratic elite. In this period, dams were designed and executed under a paradigm that posited the broader public benefit (defined in terms of the hydraulic infrastructure development) over the rights of small communities that were affected by the new dams. Those small communities were seen as socially expendable and the narrative of social compensation was based on the assumption that relocation benefited communities because they would be re-incorporated in the logic of national development. Any resistance or opposition was managed by vertical and authoritarian means, including public force.

In some way, the emergence of environmentalism (that coincided with the final period of the authoritarian regime) broke the symbolic monopoly of the water bureaucracy. New rules and institutions were created for the environment under paradigms that proposed the use of sustainable criteria and best environmental practices for managing the environment, and therefore water. In the case of development projects (as is the case of large dams) environmental paradigms introduced the use of environmental impact assessments that included the

consideration of social impacts and negotiations. This produced a situation of competition between the old and the new bureaucracies and discourses.

In relation to environmental citizenship, the democratic transition and the emergence of environmentalism produced discourses emphasising environmental rights and provided openings for a more active civil society. An increasing number of environmental social movements and networks have since developed and one of their foci is the defence of environmental victims, such as the communities displaced by dams.

This chapter analyses this evolving process. It starts with an historical review of the water bureaucracy in the authoritarian period, before identifying more contemporary forms of competition with newer environmental bureaucracies in the post-authoritarian state (sections 4.1 to 4.3). Section 4.4 focuses in on large dams, and how they were approached under the old regime. Section 4.5 analyses how the government uses some of authoritarian practices to deal with the environment and social conflict around the Zapotillo dam project.

4.1. Hydraulic bureaucracy in Mexico, before and today

Water bureaucracy¹ has a long history in Mexico. In the 1920s the country consolidated the institutions that defined “modern Mexico”, in the new regime that formed after the revolution of 1910. The 1917 constitution laid the foundations of power concentration of water in the federal government. It established that “Ownership of the lands and waters within the boundaries of the national territory is vested originally in the Nation, which has had, and has, the right to transmit title thereof to private persons, thereby constituting private property” (C-1917, Art. 27, 1st paragraph).

¹ I understand “water bureaucracy” as the agencies or bureaux that are part of the federal public administration (or cabinet in a presidential regime) and are responsible for governing and managing water.

The fifth paragraph of the 27th article establishes which water belongs to federal jurisdiction, which to local governments (state-level), and which can be privately owned. It is a text that was included in a 1945 amendment (and has not been modified since) and it entails a remarkable complexity that has been an object of important academic analysis (e.g. Cossio-Diaz, 1995). In order to simplify and understand which water corresponds to whom, in table 4.1 the full text is included in the left column and in the right column I separate each case in paragraphs and identify if it is federal water (F1 to F7), state water (S1) or private water (P1 and P2).

Table 4.1. The property of water in Mexico according to the federal Constitution

Constitutional text	Cases of water property (simplified text)
<p>The nation has likewise in its ownership the waters of territorial seas in the extension and terms fixed by International Law; those of lagoons and estuaries permanently or intermittently connected with the sea; those of interior lakes of natural formation that are linked directly to constant-flow streams; those of rivers and their direct or indirect tributaries, from the point the first permanent, intermittent and torrential waters start until it flows into the sea, lakes, lagoons or estuaries of national property; those of constant or intermittent streams and their direct or indirect tributaries, whenever the stream, throughout the whole or a part of its length, serves as a boundary of the national territory or of two federal entities [states], or if it flows from one federal entity [state] to another or crosses the boundary line of the Republic; those of lakes, lagoons, or estuaries whose basins, zones, or shores are crossed by the boundary lines of two or more entities [states] or by the boundary line of the Republic and a neighbour-country or when the shoreline serves as the boundary between two federal divisions or of the Republic and a neighbour-country; those of springs that rise from beaches, maritime areas, beds, basins, or shores of lakes, lagoons, or estuaries of national property; and those extracted from mines. Underground waters may be brought to the surface by artificial works and utilized by the surface owner, but if the public interest so requires or use by others is affected, the Federal Executive may regulate its extraction and utilization, and even establish prohibited areas the same as may be done with other waters in the public domain. Any other waters not included in the foregoing enumeration shall be considered an integral part of the property through which they flow or in which they are</p>	<p>The nation has in its ownership the waters of</p> <p>(F-1) territorial seas (in the extension and terms fixed by International Law);</p> <p>(F-2) lagoons and estuaries (permanently or intermittently connected with the sea);</p> <p>(F-3) interior lakes of natural formation (that are linked directly to constant-flow streams);</p> <p>(F-4) rivers and their direct or indirect tributaries (from the point the first permanent, intermittent and torrential waters start until it flows into the sea [F-1], lakes, lagoons or estuaries of national property [F-2 & F-3]);</p> <p>(F-5.1) constant or intermittent streams and their direct or indirect tributaries, whenever the stream (throughout the whole or a part of its length), serves as a boundary of the national territory or of two federal divisions [states],</p> <p>(F-5.2) or if it flows from one federal entity [state] to another or crosses the boundary line of the Republic;</p> <p>(F-5.3) lakes, lagoons, or estuaries whose basins, zones, or shores are crossed by the boundary lines of two or more entities [states] or by the boundary line of the Republic and a neighbour-country or when the shoreline serves as the boundary between two federal entities [states] or of the Republic and a neighbour-country;</p> <p>(F-6) springs that rise from beaches, maritime areas, beds, basins, or shores of lakes, lagoons, or estuaries of national property;</p> <p>(F-7) and those extracted from mines.</p> <p>(P-1) Underground waters may be brought to the surface by artificial works and utilized</p>

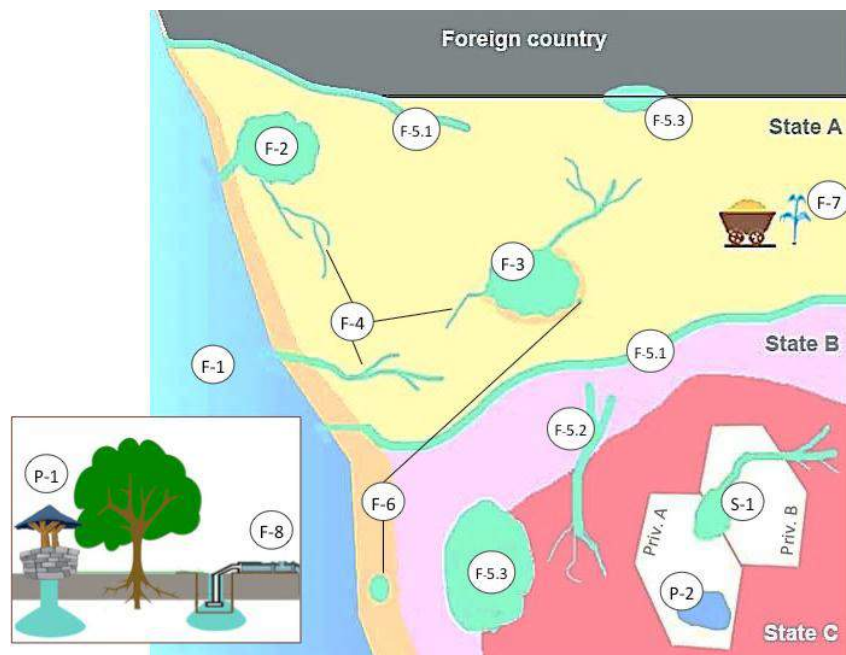
Constitutional text	Cases of water property (simplified text)
<p>deposited, but if they are located in two or more properties, their utilization shall be considered as public utility, and shall be subject to the dispositions established by the States. (C-1945, 27th article, 5th paragraph)</p>	<p>by the surface owner,</p> <p>(F-8) but if the public interest so requires or use by others is affected, the Federal Executive may regulate its extraction and utilization, and even establish prohibited areas the same as may be done with other waters in the public domain.</p> <p>(P-2) Any other waters not included in the foregoing enumeration shall be considered an integral part of the property through which they flow or in which they are deposited,</p> <p>(S-1) but if they are located in two or more properties, their utilization shall be considered as public utility, and shall be subject to the dispositions established by the States. (C-1945, 27th article, 5th paragraph)</p> <p>F= Federal water P= Private water S= States' water</p>

Source: Elaborated by the author

In their review of the scholarship on water governance, Huitema et al. (2009) point out that a desirable water management model (adaptive or new water governance) require the use of a bioregional perspective of management. This means that water management should be based in basins as natural management units, instead of political or administrative units, that are artificially constructed and fragment a basin or superimpose different ones (Huitema et. al, 2009).

The constitution created a *political* geography of water. This approach differs from bioregional perspectives based on the hydrological cycle and basin configuration. Figure 4.1 depicts this imaginary hydrology that the constitution establishes regarding water property. It is a centralised design where most of the hypothetical cases belong to the federation while state and private water are exceptions.

Figure 4.1. The property of water according the 27th constitutional article



Note: F-1 to F-8 is federal water; S-1 is state water; P-1 and P-2 is private water.

Source: Elaborated by the author.

The governments of the 1920s prioritised policies aimed at the agricultural sector and one of those policies was the provision of water; consequently, a National Commission of Irrigation (*Comisión Nacional de Irrigación*) was created in 1926 to

manage water, as an essential input for the economic primary sector (agriculture and livestock).

During the 1940s, the development policy changed in Mexico. The revolution's emphasis on developing the primary sector was gradually substituted by industrialisation. This change was effected the water bureaucracy. In 1946 the National Commission of Irrigation was transformed into the Ministry of Hydraulic Resources. In terms of the public administration's hierarchy, this was a big promotion for the water bureaucracy. Ministries are the top units of the government, in political terms, meaning water became one of the first priorities for the nation. The conception of water as hydraulic resources, rather than irrigation, emphasised the discursive turn towards industrialisation.

In 1976, the Ministry of Hydraulic Resources merged with the Ministry of Agriculture and Livestock to become the Ministry of Agriculture and Hydraulic Resources (*Secretaría de Agricultura y Recursos Hidráulicos*). The most important hydraulic infrastructure was built in the country between 1940s and 1980s, when the water bureaucracy was at ministerial level. Certainly, the water bureaucracy had a key role in the country's developmental period.

In the 1980s, Mexico's economy collapsed. Water policies were not immune to economic difficulties. Wilder (2010) points out that, in the late 1980s, water management was in a chaotic financial situation and the government was unable to solve it. Wilder estimates that approximately 80% of national water was used in irrigation and an annual investment of US\$300 billion of investment would have been required to rehabilitate irrigation infrastructure. The problem was that "The Agriculture and Water Resources Ministry had spent the previous three decades constructing expensive dams to open up new irrigated lands, with limited expenditure on maintenance of existing infrastructure." (Wilder, 2010, p. 85)

The collapse of the economy produced the abrupt transition to neoliberalism. Mexico followed the "structural adjustment" policies that the international

financial organisations had suggested in order to “rescue” the national economy. Consequently, the water bureaucracy was the subject of structural reform and it was separated from the Ministry of Agriculture and Hydraulic Resources and transformed into CONAGUA, a “deconcentrated organism”, which means that it is autonomous in technical and operational terms, even when it belongs to a ministry (and thus hierarchically subordinated to it).

Besides creating CONAGUA, the reform included the transference of certain responsibilities to from the federal level to local governments and organised private users. For example, irrigation and its infrastructure were transferred to “irrigation districts”, and the hydroelectric facilities’ operation to the electricity bureaucracy (Rodríguez-Solórzano, 2003). Castro (1995) identifies three main targets of the reform: a) increasing coverage of water supply; b) establishing a less bureaucratic system for water distribution and conflict resolution; and c) financial self-sufficiency. To attain the last one, the financial target, it was proposed to eliminate subsidies, include in water prices the total costs, create water markets and adopt privatisation mechanisms (Wilder, 2005).

It is important to reflect that although it was formulated under the neoliberal discourse of decentralisation, the reform did not produce a less state-centred water governance. The scholarship on the subject coincides that the water bureaucracy became stronger when the CONAGUA was created due to its autonomy and its position as the only authority on water (Martínez-Lagunes & Rodríguez-Tirado, 1998; Romero-Lankao, 2007). Romero Lankao spots a contradiction in this regard; the CONAGUA “...was not conceived as the authority that would promote the hydraulic development, but as an organism for planning, supporting and regulating the public and private water uses” (Romero-Lankao, 2007, p. 38 my translation).

Musseta (2009) uses the term “hydraulic leviathan” to describe the water governance model that existed in Mexico until the end of the 1990s, due to its

state-centrism (Mussetta, 2009). In my opinion, the metaphor of a leviathan² is very accurate because it describes CONAGUA's power concentration regarding to water; that is why I use it in this thesis. Mussetta concludes that the reforms on water that came with the political and economic transition aimed at dismantling the leviathan. The objective was to replace it with a new polycentric governance that included the participation of multiple stakeholders. Nevertheless, Mussetta asserts, there was not a proper replacement of the old governance for a new one and both models have coexisted ever since (Mussetta, 2009). The reforms did not produce any constitutional amendment on the property of water. The imaginary hydrography described in the beginning of this section prevails and CONAGUA is the bureau that controls most of the water in Mexico.

Federal water is managed by CONAGUA. One of the duties of CONAGUA is distributing water concessions to others (government or private users). In other words, CONAGUA entitles the use of a certain quantity of water from a federal body of water, like a river, that can be used by private consumers. For example, in the case of hydropower dams, CONAGUA entitles the Federal Commission on Electricity (CFE, *Comisión Federal de Electricidad*) to use and manage the water of a river required by the dam. Another example is the distribution of a body of water that crosses two states; CONAGUA establishes how much water will be assigned to each state. The assignment has sometimes been problematic, whereby over-assignment has resulting in more water titles than the actual volume of water.

4.2. New environmental institutions and the old hydraulic leviathan

The institutionalisation of environmental legislation and bureaucracy also occurred as a consequence of the economic transition. The environmental bureaucracy was elevated to a ministerial level in 1994, as the SEMARNAT, and the

² Leviathan, according to the Australian Oxford Dictionary, is "anything very large or powerful". I use the term "leviathan" in the sense used by Hobbes, which describes a totalitarian (autocratic) state.

CONAGUA was attached to it as a “deconcentrated organism”. The relationship between SEMARNAT and CONAGUA has entailed multiple tensions.

It is worth expanding on the significance of the “deconcentrated organisms” in the Mexican public administration. In the old authoritarian regime, the hierarchy was clearly vertical: the President appointed the ministers and the ministers appointed their teams (the whole ministry was accountable to them). With the shift of economic model, public administration seemed too rigid and obsolete to tackle the new public issues. “Deconcentrated organisms” were created as bureaus with decision-making and operational independence (semi-autonomy) and thus they were more capable of attending to specific and priority issues. The new “deconcentrated organisms” were superimposed on the traditional ministries’ structure; as a consequence, the traditional-hierarchical organization of the federal public administration was challenged because the ministries lost the total control they had over their policies and bureaucracies.

In the case of the water and environment bureaucracies there is an ambiguous situation. On one hand, CONAGUA belongs to SEMARNAT and thus it is lower in the hierarchy. On the other, both the General Director of CONAGUA and the Minister of SEMARNAT are appointed directly by the President and thus are accountable to him. In reality, there is no subordination of the CONAGUA to the SEMARNAT; the general director of CONAGUA is accountable to the President, not to the Minister of the Environment.

Environmental and water planning is conducted separately by each bureau. SEMARNAT is responsible for the elaboration and implementation of the Program of Environment and Natural Resources, and the CONAGUA is responsible for elaboration and implementation of the Hydric National Program. Both programs derive from the National Development Plan, according to the democratic national planning system (see section 3.4). Chávez (2006) asserts that the position of CONAGUA is “*sui generis*, because it has the same legislative power as the ministry to which it belongs, also because it has a complete autonomy of instrumentation. In

other words, it is like having a ministry within another ministry; this point of view is shared by ... CONAGUA itself.” (Chávez-Cortés, 2006, p. 196, my translation).

CONAGUA is, in fact, more powerful than SEMARNAT, in terms of financial and human resources (Kramer, 2006). For instance, in the 2011 budget, the SEMARNAT held 51.2 MXN billion, 71.1% of which, 36.4 MXN billion, were for CONAGUA³. Mumme and Lybecker report that in 2002, CONAGUA’s staff was 25,000 people approx., while SEMARNAT had 14,000 employees (Mumme & Lybecker, 2002). Besides, in organizational terms, CONAGUA is an aged organization that has learnt to protect itself from politics and outsiders (in this case, SEMARNAT) through two mechanisms. First, the technical argument that water is a complex and highly specialised subject in which they are *the* experts. This is what Wilensky describes as “the monopoly of highly-specialised knowledge” (Lane, 1995). Second, the legal status of a deconcentrated organism provides CONAGUA the *autonomy* to which bureaucratic agencies tend to aspire, according to bureaucracy theory (Lane, 1995).

The position of CONAGUA regarding SEMARNAT is still discussed in the political realm. In October 2012, after being elected as president, Peña Nieto announced his intentions of transforming CONAGUA into the “Ministry of Water” (Aristegui-Noticias, 2012; El-Economista, 2012; Langner, 2013; Reyes, 2013). In the words of the team who elaborated the proposal, the argument was: “If in the National Waters Act it is established that water is a priority and a national security issue, then a Ministry of Water should be created” (Olivares Roberto, in Rea, 2012). The team explained to the reporter the target of the new agency: “an organism with the capacity of instrumenting a real policy in hydric regards and more attributions to regulate the [water] sector...” (Rea, 2012).

The proposal was not entirely welcomed by the CONAGUA. Luege Tamargo, who was then CONAGUA’s general director, stated in a very polite way that it would be

³ Calculations of our own based on the 2011 Federal Expenditure Budget (PEF, *Presupuesto de Egresos de la Federación*).

“a strategic decision by a government that considers water as a highly relevant subject, I think that is very good, I have always fought for Conagua [so it] could have autonomy on management and strengthening its incomes” but being a Commission, as it is now, would be better (“much more versatile”) in economic terms (Reyes, 2013).

To date (June 2013), Peña Nieto’s government had not presented any bill for reforming CONAGUA. The status quo has prevailed.

4.3. Competing discourses on water and the environment in federal acts

Two different discourses on environment and water can be seen in federal acts. The EEEPA of 1996 was the new legislation promoted by the new environmental bureaucracy and environmental social actors. The NWA is four years older; it was enacted in 1992⁴ and the bill was prepared with primary participation of CONAGUA, the water bureau that resulted from the neoliberal transition (see Table 3.1).

In 2001 a discussion about reforming the NWA started in the Senate with a bill submitted by a PRI senator⁵. In 2002 a second bill was submitted by the PAN. Both bills were combined in a reform project that was approved by the congress (federal parliament) in 2003 (Caldera-Ortega, 2010). The reform created independent basin organisms that would coexist within the existing basin. It also proposed a total decentralisation of water management. CONAGUA would be converted into an “autonomous decentralised organism”; which means that it would have complete autonomy, instead of being a “deconcentrated organism” attached to SEMARNAT (Caldera-Ortega, 2010).

⁴ This act substituted the 1972 Federal Act on Waters (*Ley Federal de Aguas*).

⁵ Caldera reports that the bill had been formulated under the advisory of an ex public servant of CONAGUA (Caldera-Ortega, 2010, p. 15)

President Fox exerted his veto right upon the approved reform, arguing that the water autonomy would contradict Article 27 of the constitution, which defines that the property of water “is vested originally in the Nation”. His opinion was supported on the technical opinion of SEMARNAT and some members of the CONAGUA, who disagreed with the changes to the water management scheme.

CONAGUA and SEMARNAT each prepared a draft to submit to the Congress for a new bill to reform the NWA. Kramer (2006) considers that these proposals denote the different, and even opposed, views of the two bureaus about how water management should be conducted in Mexico. In her research, Kramer quotes one of her interviewees: “The SEMARNAT project was to make a law called the Law of Waters and Watersheds, and the CNA [CONAGUA] project was nothing more than to reform the National Water Law to decentralize ... [and] to give independence and autonomy to the National Water Commission” (Kramer, 2006, p. 57).

With these two drafts, the discussion of the NWA was reopened in the congress and this time SEMARNAT and CONAGUA were both invited to participate. The final version of the bill was approved at the end of 2003 and came into law in April 2004 (Caldera-Ortega, 2010; Kramer, 2006). The NWA was deeply modified. President Fox announced it as a “new law” in his annual government report (Fox, 2004). Table 4.2 summarises the institutional framework timeline.

Table 4.2. Main historical events for the environment and water, in institutional terms

<i>Year</i>	<i>Event</i>	<i>National context</i>
1926	The National Commission of Irrigation was created	Aftermath of the revolution. Primary sector’s development policies. Water as input for agriculture and livestock
1946	The National Commission of Irrigation was transformed into the Ministry of Hydraulic Resources. It ascended in the political hierarchy	Industrialization policies. Water as a resource for development.
1976	The Ministry of Hydraulic Resources merges with agriculture and livestock, into the Ministry of Agriculture and Hydraulic Resources	The most important period of hydraulic infrastructure development.
1983	Responsibilities for water provision and sewage	Decentralisation policy aim to

<i>Year</i>	<i>Event</i>	<i>National context</i>
	were transferred from the federal government to municipalities (115 article, constitution)	empower local governments
1988	Enactment of the General Act of Ecological Equilibrium and Environmental Protection (EEEPA), which lacked effective mechanisms of enforcement	Collapse of the economic model. The international financial organisations conditioned their help to the adoption of structural adjustment policies.
1989	Water bureaucracy is converted into the National Commission of Water (CONAGUA), as a “deconcentrated organism” attached to the Ministry of Agriculture and Hydraulic Resources. Thus, it gained technical and operational autonomy	Shift to neoliberal and decentralisation policies
1992	Enactment of the National Waters Act (NWA)	Negotiations of NAFTA with US and Canada.
	Creation of the National Institute on Ecology (INE) and the Federal Attorney for Environmental Protection (PROFEPA), as deconcentrated organisms attached to the ministry in social development	Industrial accidents, e.g. explosions in Guadalajara attributed to PEMEX UN environmental conference in Rio de Janeiro
1994	Creation of the Ministry of Environment, Natural Resources and Fisheries (SEMARNAT). The CONAGUA, INE and PROFEPA are transferred to the SEMARNAT as “deconcentrated organisms”.	The last PRI government (1994-2000). Technocratic approach of the federal administration configuration.
1996	The EEEPA is reformed (almost entirely) after a public debate of almost two years.	The environment became a relevant policy issue. A market-based approach was adopted.
1999	The responsibility of water sanitation and wastewater treatment is transferred from the federal government to municipalities (reform of the constitution’s 115 article)	Academics and environmental experts headed many of the environmental bureaus.
2001	The area of fishery is transferred from SEMARNAT to the ministry of agriculture. New name of the SEMARNAT: ministry of the environment and natural resources. New deconcentrated organisms are created within SEMARNAT.	First government of the PAN. Tensions between the president and the federal congress (parliament) generated a political environment of “paralysis” in some areas.
2001	The discussion on the NWA started in the Senate	Tensions within the SEMARNAT and its deconcentrated organisms (like CONAGUA and INE).
2003	The Congress approved a reform of the NWA that combined the proposals of the centrist and right parties (PRI and PAN). The president exerted veto upon this reform	
2004	The NWA is reformed almost entirely. The	

<i>Year</i>	<i>Event</i>	<i>National context</i>
	reform was negotiated between the legislative, SEMARNAT and CONAGUA	

Source: Elaborated by the author

Wilder (2010) considers that the political process in which the reform took place produced an incomplete decentralisation of CONAGUA. Caldera Ortega (2010) asserts that the 2004 NWA was said to strengthen the management based on basins; but, on the contrary, it produced a stronger centralism because it gave greater powers to the federal government, since the basin organisms are directly subordinated to it. The NWA reflects in its text and discourse the contested process that took place in 2004, e.g. the confrontation of different visions between the legislative and the executive, and also between SEMARNAT and CONAGUA. The NWA has been reformed three times between 2004 and 2012.⁶

4.3.1. Water, environment and sustainable development in the NWA and EEEPA

There are many aspects that show the contradictions, ambiguities and tensions in the environmental discourses contained within the NWA and between the NWA and the EEEPA. I focus only on two: the discursive construction of water with regards the environment and the concept of sustainable development.

What is “water” and what is its relationship with “the environment”, according to the NWA? NWA means National Waters Act. I highlight the use of the plural in waters, as formulated in the 1917 constitution, when “waters” is used in the same way as “lands”, i.e. resources that can be divided to constitute private property. Ever since, the legislation has kept the plural, but not the bureaucracy. In 1989 the CONAGUA was created using the word “water”, in singular (and before that it was “hydraulic resources”, see table 3.3).

⁶ None of these reforms are particularly relevant in terms of the environmental discourse analysis reported in this thesis. This analysis used the NWA text that resulted from the reforms of the 8th of June 2012.

The NWA uses the singular term to refer to *water-in-general*. The plural “waters” is used to: a) denote “national waters” as the name of the act”; b) classify where the waters are: the underground, the surface and the sea; or c) in the case of wastewaters. The use of the plural works as a linguistic device; it suggests that water can be easily fragmented. If there are many waters, then there can be many ways of management or many managers (in this case, federal and local governments and private users).

In the NWA, the phrase “hydraulic resources” is used as synonym of water⁷. As a linguistic device, the construction of water as a resource leads to action of using or exploiting such resource (e.g. Schultz, 2001). The use of “hydraulic resources” and all the hydro-words (e.g. hydric, hydrology, hydrologic and hydraulic) also normalises technocratic rationalities and the existence of a water elite. Hydric, hydrology and hydrologic refer to aspects of water while hydraulics refers to the conduction of water through pipes. The NWA uses the term in the case of hydraulic infrastructure or hydraulic works. Figure 4.2 contains the frequency of the use of these words in the NWA. In order to avoid confusions we quote the different definitions according to the Australian Oxford Dictionary (AOD) in Figure 4.3.

⁷ It is used 71 times in the NWA.

Figure 4.2. Frequency of the words “water” and “waters” in the NWA

957 water(s)
552 water
4 in “National Commission on Water”
43 in the section of technical definitions
505 other
405 Waters
5 in “Waters Technical Committees”
27 in the section of technical definitions
169 in “national waters”
90 in “waste waters” [<i>aguas residuales</i>] (vs 4 “waste water”)
23 in “underground waters” [*] (vs. 2 “underground water”) ^{**}
10 in “surface waters” (vs. 1 “surface water”)
6 in “sea waters” (vs. cero)
6 in “concessionary waters” (vs. 3 “concessionary water”)
69 Other
[*] 20 “aguas del subsuelo” + 1 “aguas de subsuelo” + 2 “aguas subterráneas”
^{**} 1 “agua del subsuelo” + 1 “agua subterránea”

Source: Elaborated by the author

What lies beneath the use of a hydro-word instead of “water”? The prefix *hydr*-⁸ has been used in the development of sciences, e.g. hydraulics, hydrology, hydrogeology, hydrography, hydrostatics, etc. On one hand, the use of hydro-words sounds “more scientific” and then it reinforces the idea that it is a matter for experts and justifies the decision (“technical”) autonomy of the water authority, i.e. CONAGUA. On the other hand, it is about the country’s approach of development. In the aftermath of the revolution, water was seen as a resource required for developing the primary sector, to “irrigate” crops. That is why the name of the bureau was the National Commission of *Irrigation*. When the country moves its priority development goals to industrialization and the bureau ascends, it became the Ministry of Hydraulic Resources. “Hydraulic” because it aims at developing the hydraulic infrastructure (to conduct water through pipes).

⁸ With a Greek root: *hudro-* from *hudōr* “water” (AOD, 2004)

The term “hydraulic resources” disappeared from the water bureau’s name until 1989, when it was named CONAGUA. However, it did not disappear completely from the policy and political discourse. For instance, the planning documents on water (part of the national planning system mentioned above) have been named Hydraulic Program (1995-2001) and Hydraulic National Program (2001 onwards)⁹

Figure 4.3. Definitions of “water” and *hydro*-words

water, n.

1. a colourless transparent odourless tasteless liquid compound of oxygen and hydrogen (Chem. Formula: H₂O).
 2. a liquid consisting chiefly of this and found in seas, lakes, rivers, etc., and the basis of the fluids of living organisms.
 3. an expanse of water; a sea, lake, river, etc.
 4. [in *p/l*] part of a sea or river (*in Australian waters*).
- ... (AOD, 2004)

hydric, adj.

(Ecol.) (of an environment or habitat) containing plenty of moisture; very wet (AOD, 2004).
Belonging to or concerned with water (RAE, 2001, my translation from Spanish).

hydrology, n.

the science of the properties of the earth’s water, especially of its movement in relation to land.
(AOD, 2004)
part of natural sciences that deals with waters (RAE, 2001, my translation from Spanish)

hydrologic, hydrological, adj. of hydrology.

hydraulic, adj.

1. (of water, oil, etc.) conveyed through pipes or channels usu. by pressure.
 2. (of a mechanism etc.) operated by liquid moving in this manner...
 3. of or concerned with hydraulics.
- ... (AOD, 2004)

hydraulics, n.pl. [usu. treated as sing.]

the science of the conveyance of liquids through pipes, etc. especially as motive power. (AOD, 2004)
... the part of the mechanics that studies the equilibrium and motion of fluids. (RAE, 2001, translated from Spanish)
... the art of conducting, containing, elevating and making use of waters. (RAE, 2001, translated from Spanish)

Sources: Australian Oxford Dictionary (AOD), 2004; Real Academia de la Lengua Española, 2001.

⁹ *Hydric National Program 2001-2006, Hydric National Program 2007-2012 and Hydric National Program 2014-2018.*

On the contrary, the EEEPA speaks of “water” rather than hydro-words¹⁰. The EEEPA addresses water from a perspective of “aquatic ecosystems”; it contains two sections in this regard: 1) “Sustainable Use¹¹ of Water and Aquatic Ecosystems” (EEEPA, 3rd title, chapter I)¹² and 2) “Prevention and Control of Pollution of Water and Aquatic Ecosystems” (EEEPA, 4th title, chapter III)¹³. The EEEPA establishes the “ecological criteria” (or compulsory guidelines¹⁴) to be observed in the case of water in any policy; table 4.3 reproduces the text.

Table 4.3 EEEPA’s criteria to be followed in the case of water and aquatic ecosystems

Criteria regarding: <i>sustainable use</i> (EEEPA, art. 88)	Criteria regarding: <i>prevention and control of pollution</i> (EEEPA, art. 117)
<p>I. It is incumbent upon the State and society the protection of aquatic ecosystems and the balance of natural elements that intervene in the hydrological cycle.</p> <p>II. The sustainable use of the natural resources comprised in the aquatic ecosystems must be done in a way that does not affect their ecological balance.</p> <p>III. In order to keep the integrity and balance of the natural elements that intervene in the hydrological cycle, it must be considered the protection of soil, forest and jungle’s areas and [sic] the maintenance of water’s basic stream flows, and the aquifer’s recharge capacity.</p> <p>IV. The preservation and sustainable use of</p>	<p>I. Prevention and control of water’s pollution is fundamental to avoid the reduction of its availability and to protect the ecosystems of the country;</p> <p>II. It is incumbent upon the State and society to prevent pollution of rivers, basins, vessels, seawater and other water reservoirs and streams, including underground water;</p> <p>III. The use of water in productive activities that are susceptible of producing its pollution, comes with the responsibility of discharges treatment, in order to reintegrate it in suitable conditions for its use in other activities and to maintain the balance of ecosystems;</p> <p>IV. Urban wastewater must be treated before its discharge to rivers, basins, vessels, seawater and water reservoirs and streams, including</p>

¹⁰ In the EEEPA, “water” is used 99 times; the term “hydraulic resources” is used just one time and “hydric resources” is not used.

¹¹ The Spanish term *aprovechamiento* was translated as “use”. However, *aprovechamiento* has another connotation; it comes from *aprovechar*, which means “having an advantage”.

¹² The EEEPA’s third title is about the “Sustainable Use of Natural Elements” (*Aprovechamiento Sustentable de los Elementos Naturales*).

¹³ Within the EEEPA’s 4th title “Environmental Protection”.

¹⁴ According to the EEEPA, the ecological criteria are “The compulsory guidelines contained in this act to orient actions of preservation and restoration of ecological balance, the sustainable use of natural resources and the protection of the environment, which will be considered as instruments of the environmental policy” (EEEPA, 3rd article, fraction X).

water, as well as the aquatic ecosystems, are responsibilities of their users, as well as of those who make works or activities that affect such resources.	underground water; and V. The participation and co-responsibility of society is an indispensable condition to avoid water pollution.
--	--

Source: EEPA-2012. The text in bold corresponds to keywords or key concepts.

These criteria reflect environmental discourses on water of the EEPA, which:

- Acknowledges the existence of an environmental problem when it speaks of water as a limited resource that must be protected and preserved.
- Frames water in a complex, interactive, dynamic and multi-scalar ecological system. It speaks about a small scale where water works in a hydrological cycle connected to soil, forests, jungle, etc. It considers the general balance of natural elements. In a macro-scale, it speaks about the ecosystems of the whole country.
- Talks about pluralistic environmental governance when it establishes that both State and society are co-responsible for water. In this model of shared responsibilities, the EEPA emphasises that the users of water are responsible for its use, particularly for delivering it clean back to the ecosystem
- Aims at maintaining the basic stream flows and the aquifer's recharge capacity, as a limit to development; this is very relevant in the design of infrastructure like dams.

The NWA addresses the environmental criteria for water planning in a different way ¹⁵. In the section about "National Hydric Policy" (NWA, 3rd title, 1st section), the NWA includes, among others, the following principles:

¹⁵ The environmental concerns of the NWA are addressed in: a) definition of public utility and public interest used in water management (arts. 7 and 7-bis); b) water planning (3rd title); c) water protected zones¹⁵ (3rd article and 5th title, arts. 38-43); and d) some loose references when addressing the electricity generation and hydraulic infrastructure.

Water is a good of public federal domain, which is vital, vulnerable and finite, with social, economic and environmental value, its preservation in quantity and quality and sustainability is a fundamental task for the State and the Society, as well as a priority and national security matter (NWA, article 14-bis-5, fraction I)

...

Attention to the necessity of water to society for its wellbeing, to economy for its development and to the environment for its balance and conservation; particularly, the special attention of those necessities for marginalised or less economically benefited populations (NWA, article 14-bis-5, fraction V)

The first principle is a definition more than a principle. This is the only definition of water provided by the NWA. It is placed in the planning section (and not in the initial definitions) undermining its importance. The definition acknowledges the limits of water availability and the need for balance between environment, society and economy.

The second principle is confusing and unclear. The paragraph suggests that water planning (hydric policy) should consider that water is needed by: 1) society for its wellbeing; 2) by the economy for development; 3) by the environment for its balance and conservation; and 4) by the marginalised or poor (who should have priority, “particularly, the special attention...”). The way in which it is expressed leads to the idea of a divisible resource: water that must be distributed in four groups (which might compete if there is scarcity). This is again the idea of waters, in plural.

In a different section (“Water Administration”, NWA, 2nd title), the NWA establishes guidelines for the federal government in the case of water. It emphasises the consideration of “public utility” and “public interest”. The NWA addresses here the “protection, improvement, conservation and restoration” of water bodies (art. 7, fraction II), but it distinguishes between:

- Hydrological balance (fraction IV); and
- Balance of the “vital ecosystems linked to water” (fraction V)

In other words, it supposes the separation of water in abiotic (“hydrological”) and biotic (“vital”) systems.

In the NWA discourse, water is not properly integrated into the environment; it is a part of it that can be separated and managed independently. The environmental concern is a new variable that had to be added as a result of the negotiations with the legitimization of environmental discourses. The following phrase is a clear example of it:

It is deemed as public interest:

...

VIII. The absolute [plena] incorporation of the **environmental variable** and the national waters’ economic and social valuation in the policies, programs and actions regarding the hydric resources management, in the institutions and society’s realm.

(NWA, 7-bis article)

A final observation about the differences in discourse of the NWA and the EEEPA is about sustainable development. Originally, in 1992, the NWA did not mention anything about sustainable development. The EEEPA-1996 included it in its initial section of “definitions”:

Sustainable Development: The process susceptible to be evaluated through environmental, economic and social criteria and indicators, which tends to improve people’s life quality and productivity, it is based on appropriated measures for preserving the **ecological** balance, protecting the environment and using natural resources in a way that does not compromise the satisfaction of future generation’s needs.

(EEEPA, 3rd article, fraction XI)

I have three comments about this definition. First, it is certainly an anthropocentric definition, i.e. sustainable development should “tend to improve

people's life quality and productivity". In this sense, the EEPA's discourse corresponds to a human welfare ecology approach, as defined by Eckersley (McGregor, 2000). Second, the EEPA reproduces the convenient ambiguity of many definitions of SD (regarding the tension between development and environment). The environment and ecological balance are not addressed directly, but through "appropriated measures" on which sustainable development is based.

As a result of the 2004 reform, the NWA included its definition of sustainable development (also in its initial section of definitions). It copied the text of the EEPA adding the words that I put in bold:

Sustainable Development: **Regarding hydric resources**, it is the process susceptible to be evaluated through **hydric, economic, social** and environmental criteria and indicators, which tends to improve people's life quality and productivity, it is based on appropriated measures for preserving the **hydrologic** balance, using and protecting the **hydric** resources in a way that does not compromise the satisfaction of future generations' needs **for water** (NWA, 3rd article, fraction XXI).

The added words make this a tricky definition of sustainable development. It starts with constraining sustainable development: "Sustainable development: regarding hydric resources...". The specification posits that water can be managed separately from the rest of the elements of sustainable development. It substituted the EEPA's "ecological balance" for "hydrologic balance", which according to the policy guidelines exposed above (NWA, 7th article, IV fraction) refers more to the abiotic notion of water.

The discursive separation of water from the rest of the ecosystem challenges the understanding of the environment as a complex, dynamic and interrelated system or, furthermore, as a social-ecological system. Considering the contested context of the NWA's 2004 reform, we can suppose that the SD definition was an outcome of negotiations aimed at including environmental concern. It is a problem-oriented text; it tries to incorporate green discourses, but in a rhetorical way, and it is not particularly convincing.

In conclusion, the NWA is the site of struggle between two discourses. On one hand, an old discourse that understands water as the resource that is under the control of the hydro-bureaucracy to fulfil the responsibilities adopted by the state in water grounds (hydro-leviathan). On the other, the discourse of the new environmentalism that understands water as part of the ecosystems, but couched within an anthropocentric understanding of sustainable development. The struggle between these two discourses did not produce a new discourse on water and the environment. In other words there was not a consensus about a unique legitimate discourse that incorporated both sides. Nor was there a “victory” of one of them over the other.

The result of the struggle was the further legitimisation and institutionalisation of two discourses. One is the environmental discourse used by the SEMARNAT and its satellite bureaus (excepting the CONAGUA) and some environmental social movements. The second is the technocratic discourse of the hydraulic leviathan, used and defended by the old bureaucracy, now CONAGUA. The technocratic discourse adopted some environmental rhetoric but they are attached to, rather than transforming, the entrenched hydraulic perspectives.

As discussed above the institutional management of water that resulted from the transition to neoliberalism and a more democratic political system ultimately favoured the technocratic water elite (CONAGUA). This means that the hydraulic-leviathan continues to manage water policy and projects, marginalising more environmentally-focused alternatives. The case of the Zapotillo dam is a clear example of how the CONAGUA has tried to work as business-as-usual, limiting the opportunities for environmental citizenship. The selective adoption of some environment rhetoric seems more oriented to deflecting critique than a radical adoption of new principles. Water management in terms of dams will be focused on in the next section.

4.4. Mega dams in Mexico, power beyond development

When a travel around Mexico's history is set forth on, even the least skilled reader will be amazed with the grandness in which we have based our future... all our hydraulic works, the modern aqueducts, the impressive dams and sewage and cleaning structures motivate at least a big and heartfelt homage.

(CONAGUA, 2014a, p. 61)

To celebrate its 25th anniversary as CONAGUA, the agency published a commemorative book entitled *El agua que mueve a México (The water that moves Mexico)*. It is memoir of the works and infrastructure built by the government regarding water. Large dams are considered within the chapter on “Hydraulic prides of Mexico” (CONAGUA, 2014b). The quote above was reproduced from the introduction to this chapter. Forty large dams were included in the memoir. They occupy 32 pages and include impressive photographs with some historical and technical data.

As in many developed and developing countries, large dams were built through the 20th century primarily to produce hydroelectricity, for irrigation and public water supply. The last data from CONAGUA reports there are approx. 5,163 dams in Mexico, 667 of which are large dams¹⁶. Hydroelectricity represented 12% of the electric generation in the country in 2012; it produced 31.3 TW per hour (CONAGUA, 2013).

According to CONAGUA, 60 of the 100 largest dams in the country were completed between 1941 and 1980¹⁷, which was the post-revolutionary period when development was rapid. The most productive decade for large dams in Mexico was the 1960s, when 20 new dams started to operate. The economic crises of the 1970s were the beginning of the decline of the post-revolutionary economic model,

¹⁶ Using to the criterion of the ICOLD (International Commission of Large Dams)

¹⁷ Calculations of my own with information from: CONAGUA, 2010

but this did not have a big impact on dam making; there were 16 new dams in this decade. In the 1980s the economic model was finally broken and, as a consequence, the country had a forced transition to neoliberalism. However, between 1980 and 2000, 30 more dams were built.

The age of large dam building in Mexico appeared to have finished at the close of the 20th century. Since 2000, just two new dams have been completed: El Cajón, in Nayarit, the neighbour state of Jalisco, in 2006; and Rompepicos, in the Northern state of Nuevo León, in 2004 (CONAGUA, 2010).

There are several reasons for the decline of the mega dam construction period in Mexico. During the post-revolutionary developmental period, the main rivers of the country were explored in order to find suitable locations to build dams; in other words, there are not as many suitable sites left as before. The transition to neoliberalism, after the economic and financial crises of the 1980s, also impacted the construction of large dams because of the lack of public monies and because the state sought to decentralise certain aspects of water management, in line with the neoliberal paradigm.

Nevertheless, large dams have not been forgotten by the state in the new era. Some projects have been launched, both for hydroelectricity and for water supply. The Federal Commission on Electricity (CFE) manages hydroelectricity projects and CONAGUA with local state water commissions manage water supply projects. What is new in the twenty-first century is the extent of social resistance to these new projects. The transition to a more democratic political system has empowered civil society. Those affected by the dams have developed strategies of resistance by creating or engaging with social movements that struggle for their causes. The best example is La Parota dam, in the state of Guerrero, announced in 2002, and is still immersed in a conflict characterised by resistance, state violence and human rights abuses.

A relatively successful case is the Yesca dam, located in Jalisco and Nayarit on the Santiago River. It is a hydroelectric dam that will produce 750 MW. The CFE, the promoters of the dam, sought to avoid the mistakes of La Parota and hired the University of Guadalajara to conduct the environmental impact assessment. The team was formed by environmental scientists from different disciplines, who later published the case study (e.g. Clausen & Contreras, 2010; Gómez-Balandra, Saldaña, Lecanda, & Gutiérrez, 2006; Verduzco & Sánchez, 2008).

Cumulative-effect assessment and public participation processes were conducted and it enhanced the negotiations between the CFE and the affected communities, who were finally able to come to an agreement. Nevertheless, some years later, those affected protested that the authorities did not comply with the agreements. Thereafter they created an association of the affected by the Yesca dam and joined the MAPDER (Mexican Movement of the Affected by Dams and in Defence of the Rivers), established in 2004 (Hernández-Alpízar, 2012; López, 2005).

Beyond the role in the development of water infrastructure, large dams have a high symbolic value for the Mexican state. Large dams are “monumental” (I adopt Nixon’s term reviewed in the previous section), in all senses. The inauguration of a dam was the moment in which the head of the “imperial presidency”, could demonstrate his power and commitment to progress.

The construction of large dams were opportunities to honour previous presidents, with many dams named after those predecessors. Large dams in Mexico have two names, as can be seen in CONAGUA’s dam inventory: they have an official name and a more common name (that everybody uses). Disparities between official and common names are due to the use of dams as “monumental edifications”. In CONAGUA’s list of 100 main large dams, 55 were had names honouring national heroes or political personages and 7 more were named after institutions and social values. Table 4.4 shows the broad categories of these symbolic official names.

Table 4.4. Symbolic official names of Mexico's main dams by category
(from a list of 100)

<i>Category</i>	<i>Dams</i>	<i>Category</i>	<i>Dams</i>
Ex president	17	Engineer (bureaucratic leader)	7
Hero (independence to revolution)	14	Institutions and social values	7
Ex governor	11	Political personage	6
		Total	72

Source: Elaborated by the author with information from CONAGUA (2010).

Almost all of the presidents of the post-revolutionary and “imperial presidential” periods were honoured excepting three: Pascual Ortiz Rubio, who resigned after two years in office, in 1930¹⁸; Luis Echeverría, who has been accused of being responsible of the 1968 students massacre (see chapter 4) and many other authoritarian abuses; and Carlos Salinas, the last president elected by the old-regime rules and the one who presided over the transition to neoliberalism, Salinas is one of the most hated contemporary political personalities in Mexico. No dam has been named after the presidents that followed Salinas, i.e. Zedillo (PRI), Fox (first “opposition” president) or Calderón (PAN). Figure 4.4 illustrates this “monumental” approach of large dams in Mexico. It is the Chicoasén dam, in the state of Chiapas.

¹⁸ Historically, he was the last president that resigned; he was one of the ‘puppet presidents’ of the period when the ex president Calles had the real political power.

Figure 4.4. Chicoasén dam in Chiapas, Mexico. Official name: Manuel Moreno Torres



Source: Photographs by the author.

Hidden amongst these monumental narratives of the Mexican state are the communities displaced by these dams who are non-existent or invisible. In the time of the “imperial presidency”, when the state controlled everything, including media, there was no concern for human rights of those who opposed the government or the power elites. Allegedly all kinds of atrocities occurred during the dam displacements and they were not properly documented but remain in the oral history of local communities.

In Mexico, it was not until the 1970s when the pioneering research of Alicia Barabas and Miguel Bartolomé analysed cases of ethnocide produced by dams in indigenous populations from an anthropologic perspective (Barabas & Bartolomé, 1973; Bartolomé & Barabas, 1990; Bartolomé, 1992). They documented the case of the Cerro de Oro dam that affected the Chinantecos people. Bartolomé asserts “the hydraulic agency in charge of the [dam] works did not consider it important to find out if the indigenous people had a contribution to the relationship with the environment for they were assumed to be a marginalised group over which it was necessary to exert an historical role of saviour and redemption”(Bartolomé, 1992, p. 25 my translation). It was estimated that the dam produced 26,000 new poor

people who previously had an autonomous subsistence from their land and their crops (García, 1997).

The same region had already been affected in 1955 when the Temazcal dam affected the Mazatec indigenous. In their website about Mexico, the environmental NGO International Rivers asserts that

The Temascal dam in Oaxaca displaced close to 25,000 Mazatec indigenous peoples, a nation that spoke 56 languages. Most were not compensated for their land and losses, and when they protested their homes were set on fire. Promises of electricity and irrigation were not met, and close to 200 displaced people died (International Rivers¹⁹)

The government has explored projects to join the Cerro de Oro and Temazcal dams to make a single reservoir. The newspaper *La Jornada* reported in 1997 that this project would affect more than 18,000 indigenous people (García, 1997). The article reports that between 1947 and 1986 indigenous people were relocated between 100 and 400 km from their traditional territory; 53 settlements were affected, a total population of 39,000 inhabitants, around 15,000 of which were not resettled and lived along the river (García, 1997).

The structures and mindsets that led to these losses continue, in different guises, today. For example, in my fieldwork, I interviewed a person who asked me to keep their identity as confidential. This person spoke about a bureaucrat at CONAGUA currently working on the Zapotillo project. This man is one of the negotiating team, the area that deals with “social issues”. Frequently this man boasts that he worked on the Cerro de Oro dam and was proud that they did not have any problems “getting rid of people” by authoritarian methods and state violence, and that these methods should continue today.

I finish this section with the following reflections. Forced displacements and human and social rights violations have been produced by the developmental

¹⁹ <http://www.internationalrivers.org/latin-america/mexico> ; v.i. 5 June 2014

paradigm of progress all around the world. The history of Mazatecos and Chinantecos people are just examples of the many abuses in the large dams' history of Mexico. Within a context of historical inequities and classist domination structures, marginalised communities in the way of development projects are readily seen as expendable social groups, they do not really count.

In the case of Mexico, the practices of the “imperial presidency” were characterised by the “perfect public image” of the regime, where conflict and opposition were silently deleted. This imposition of invisibility, the denial of existence and deletion of evidence and documents, are some of the worst kinds of violence that can be exerted by the state on social groups. In examining the Zapotillo case, this thesis contributes to ensure this will not happen. Instead by researching resistance, this thesis seeks to understand and contribute to new forms of environmental citizenship.

4.5. Strategies of CONAGUA towards society in the case of the Zapotillo dam

This section explores how CONAGUA has managed social environmental issues of the Zapotillo dam project. As analysed in the previous section, in the authoritarian state dams were built with few social and environmental considerations through authoritarian means over the human rights of affected communities. In the post-authoritarian state, large dams and other mega projects of infrastructure are framed in a very different social and political context characterised by democratic institutions, a more active society, legitimization of environmental discourses based on sustainability and the consolidation of environmental institutions and regulations.

In the context of competition between the old “hydraulic leviathan” and environmental public and social actors (addressed in Sections 4.2 and 4.3), CONAGUA has used two strategies to defend the Zapotillo dam project from social and environmental opposition. The first one is “green-washing”. It refers to the

adoption of environmental rhetoric to justify the project in social and environmental terms. This strategy is explored in Section 4.5.1.

The second strategy is similar to what was described above as making invisible social opposition and communities' resistance to large dam projects (Section 4.4). CONAGUA hardly acknowledges the social opposition to the Zapotillo dam projects. It tries to make invisible the resistance of the communities affected by the Zapotillo dam and the social action that supports them. This will be analysed in section 4.5.2.

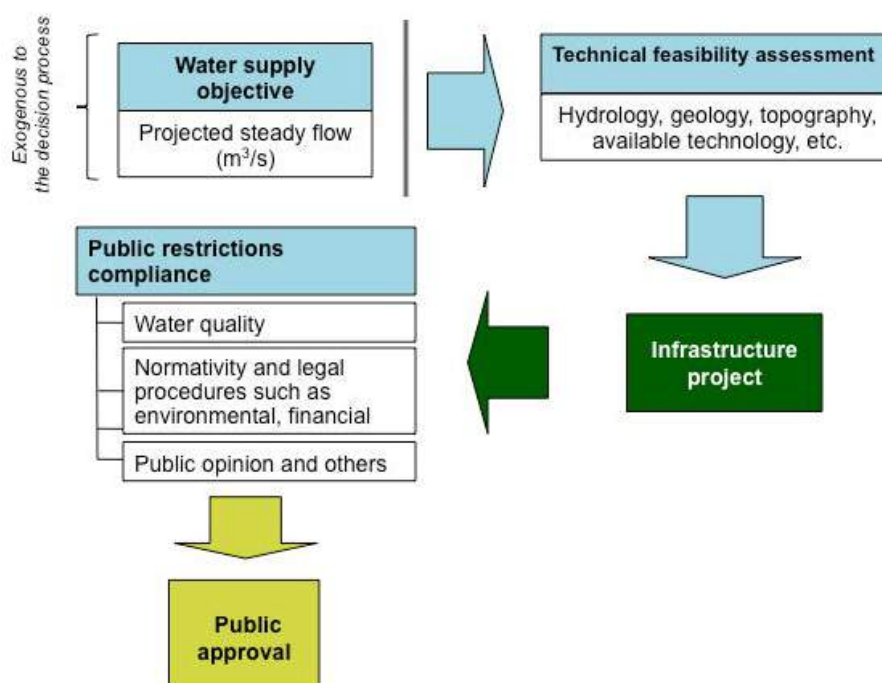
4.5.1. Green-washing of the Zapotillo dam project

From the analysis I made in 2006 about the Arcediano dam project (reviewed in Section 2.1) I concluded that the conflict could be explained in terms of two confronting paradigms on deciding and planning large dams projects, i.e. the environmentalists' paradigm and the water bureaucracy's paradigm (Figueroa-Neri, 2006). The paradigm of the environmentalists posits that the focus should be expanded from a project-approach to a question of water management. In the case of the Arcediano dam that was planned to supply water to Guadalajara City, the environmental paradigm suggested a decisions route that started with the analysis on the quantity and quality that the city required under approaches of sustainability and efficiency (regarding the use of water as natural resource). The next step would be the evaluation of diverse alternatives (not only dams) of water management under criteria that included not only technical feasibility but also sustainable economic, environmental and social criteria. Finally, the selection of the best alternative should be open to public debate in order to involve in the process to all stakeholders (Figueroa-Neri, 2006).

The paradigm of the water authorities focuses on a dam project. The project has a water supply objective to fulfil, measured in cubic meters per second; this is a fixed objective that is set in an exogenous way and it represents the projected demand of water of the dam beneficiaries. The path starts with the selection of a site that fulfils the water objective through successive hydrological, geological, topographic

and other technical studies. Once the best site is found and the technologic characteristics for the dam's wall and reservoir are decided, it is considered as *the* state's project. In order to avoid legal and social conflicts, the project is prepared to satisfy the social conditions, such as legal standards of water quality, any legal disposition in financial, social or environmental normativity, and the image from the public opinion perspective. Once these conditions or social and legal restrictions are solved, there is no need of further action and the project will be successfully implemented. Figure 4.4 shows this decision path.

Figure 4.4 Decision path of a large dam under a project approach



Source: Figueroa-Neri, 2006, my translation

The Mexican water bureaucracy seems to think it is not about the environment, but about solving restrictions in the execution of a project. In the 1999 conference of the Mexican Association of Hydraulics, entitled “The Development of Dams in

Mexico”, there was a session to discuss the social and environmental impacts of dams. A speaker from the SEMARNAT²⁰ introduced their presentation in this way:

The environmental decision on a project, although it is not a construction authorisation in a strict sense, it is a fundamental element in the decision-making and the promotion of important hydraulic works in our country. It has become in recent years a fundamental condition; not only of the engineering part ... but it is also a condition related with the obtainment of loans from international and national banks, and it has become a fundamental event [sic] of the international funding of large hydraulic projects anywhere in the world.

(Alvarez, in Provencio, Alvarez, González, & Martínez, 1999, p. 67, my translation)

Environmental regulations, such as the EIA, are seen as bureaucratic paperwork, rather than instruments for deciding dams. The speaker quoted above, at the end of the session asserted: “the environmental authorities are not to say how, where or where not ... they are not to say ‘no’, they are to say how to do things properly” (Provencio et al., 1999, p. 87, my translation), meaning that the environmental bureaucracy is not to question any dam project or reject an EIA. The role of the environmental ministry (in charge of approving, observing or rejecting EIAs) is to advise them about how to adapt the project in a way that could satisfy the new environmental regulations.

Water bureaucracy in Mexico did not adopt an environmental way of thinking or deciding. Instead, it adapted its discourse to look like the environmentalists discourse. In the analysed session of the Mexican Association of Hydraulics, another speaker, Cesar Ramos, asserted:

[W]e must not ignore the positive impacts that dams have on the environment in aspect such as the constant raining seasons, positive hydric balance, permanent waters bodies, the possibility of bigger extractions of underground water to recharge aquifers, the flowering of natural resources, as well as the improvement of the living level of the population.

(Ramos, in Arreguín, Herrera, Marengo, & Paz-Soldán, 1999, p. 30)

²⁰ The speaker was Pedro Álvarez Icaza, General Director of Planning and Environmental Impact of the National Institute of Ecology (Arreguín et al., 1999)

The discourse in this text reflects clearly an anthropocentric and developmental understanding of the environment. It is besides, a Promethean discourse where there is no a notion of water scarcity or ecological problems. The comprehension of complex social-ecological systems is very limited.

Similar arguments are used by the CONAGUA in the case of the Zapotillo dam. The project is presented as positive for the environment and the affected communities. Nevertheless, their argumentation is weak and uses multiple rhetoric mechanisms and fallacies. For instance, they declare the purpose of the project as follows:

Guarantee the clean water provision during the next 25 years to Los Altos of Jalisco, the city of León, Guanajuato, and regulate volume [of water] to provide 3 m³/s to the ZCG [metropolitan area of Guadalajara], through the use of the Verde River waters, contributing to the sustainability and recovery of the aquifers from which they are being supplied currently, which have reduction up to 3 m per year (CONAGUA, 2011, p. 5)

CONAGUA infers from this statement that there will be 2.4 million inhabitants that will be benefited, which is the total population of the cities of León and Los Altos Region, plus almost a million inhabitants from a part of Guadalajara City. This account of beneficiaries is used to create a metaphor in the discussion of the project: a balance in which on a side there are 2.4 million beneficiaries and on the other just 300 permanent inhabitants of Temacapulín.

Other “hydraulic-environmental benefits” that CONAGUA mentions are:

- “Aquifers recharge in the influence zone of the dam’s reservoir”.
- “Chapala Lake will receive treated water from León Guanajuato, from the transferred volume from the Verde River to León”.
- “Construction of treatment plants in the influence zone of the project”.
(CONAGUA, 2011, p. 30).

Beyond the quality of technical data that is supporting the project (e.g. projected water availability), these statements entail several fallacies:

1. The dam itself cannot guarantee the provision of water; it depends on the hydrological behaviour of the water catchment area, water management and operation conditions, among other possible factors.
2. Diverting basin is not necessary sustainable. As mentioned above, the water of the Verde River will be diverted through a long aqueduct to another basin.
3. Pouring more water into a city system is not a sustainable measure to solve problems of overexploitation of an aquifer.
4. The reservoir area already has a natural recharge system from the Verde River; there is no mention about an existing problem in this regard.
5. Not all the inhabitants of the mentioned cities will be benefited, nor the people from Los Altos (which would actually have less water because it has to share the available water from the Verde River with León and Guadalajara).
6. Treatment plants could be projected and built independently of a dam; “clean water” in Mexico’s standards is very far from being clean or drinkable, this is a policy that should exist on its own.

Besides the statement by CONAGUA ignores the downstream effects, such as the recharge of the aquifers; it suggests that adding more water would “help Chapala” to cope with the pressure of water demand and decreasing levels that affect the lake. CONAGUA ignores the environmental impact of basin transference.

Regarding “social economic benefits”, CONAGUA considers the generation of new employment: temporary (during the construction), permanent (for the dam operation), and in new activities like fishing, services and tourism generated by the dam reservoir (CONAGUA, 2011, p. 31). Apart from this document and CONAGUA’s public information, there is no public information available about development or any other activity around the dam, which creates the suspicion that it might be just a rhetoric mechanism (e.g. McDonald-Wilmsen & Webber, 2010; Tilt, Braun, & He, 2009).

CONAGUA asserts that as a consequence of the dam, “economic development poles are to be generated in the region, fostering belonging and reducing migration”. There is no further information about where or what would trigger development poles. CONAGUA’s argument of “migration reduction” as a benefit of the dam is questionable; research about forced displacements has showed more failures than successes.

Another fallacy is speaking of the communities’ displacement to new locations as if they were “social benefits” and not mitigation or compensation measures:

- “New populations’ settlements for the towns to relocate. Improvement of the communication infrastructure. Payment of affected property at commercial prices”
 - “Basic services such as: clean water, health centres, public lighting, schools, sports and recreational facilities, and [water] cleaning infrastructure”.
 - “Relocation of religious centres (temples and chapels) and cemeteries. Temacapulín’s church, its atrium, the priests’ house [*casa cural*], as well as the Municipality’s Delegation office will be remove stone by stone to warrant its state in its maximum expression”.
 - “Respect, dialogue and transparent agreements according to the legislation and to the law”.
- (CONAGUA, 2011, p. 32)

CONAGUA attempts to adopt a discourse based on rights in the topic of “social attention”. CONAGUA asserts that the project acknowledges the following citizens’ rights:

Information Right: Inhabitants must know the projects.

Consultation Right: According to the law, a Citizens Consultation is required in the Environmental Impact Assessment.

Right to an adequate environment for their development and wellbeing: These reservoirs allow to keep aquatic species, the recharge of the aquifer and keep ecological flow for the river's survival and the ecosystem that depends on it.

Right to a decent household: In case of affecting population settlements, new developments with decent household and all public services shall be built.

(CONAGUA, 2011, p. 34)

In a press conference in January 2012, a journalist asked CONAGUA's general director why they considered the forced displacement of a community as a social benefit (CONAGUA-PC)²¹. He answered

...you decide, a benefit for two million 400 thousand and a relative appreciation for 500. Practically the general welfare, the social welfare is superior to the personal, particular, welfare.

So, the central objective, from my point of view, emphasis (sic) that this project is complying perfectly with all the legal aspect of the environmental, social [and] historical laws, but it is also a benefits-generator.

This is important to be said, because suddenly one becomes the hostage of groups (including foreigners) that criticise everything, that do not agree with the building of the dam; when the truth is that it is a necessity, on one side, but simultaneously it is a big benefit.

(CONAGUA-PC)

When asked for a message to give to the communities that have declared that they prefer to be drowned rather than be relocated, the director of CONAGUA said that these people will not lack of anything, their human rights will be respected and there would be a dialogue until all the reservations about the new settlement are satisfied. He added:

²¹. The press conference transcript (CONAGUA-PC) was downloaded from CONAGUA's website in August 2012. Two years later, when this chapter was written, the document was no longer available in Internet.

Not only because someone comes entitled as UN rapporteur, it means he is right in what he says. This person does not know the project and, of course, he knows nothing about what I have just explained, the bottom need of the region for saving its aquifers, the need of warranting water supply and the benefits that the communities will have. Nor this UN rapporteur knows that this works benefit 2 million 400 thousands of people and relatively affects less than 500.

Thus, don't let the UN rapporteurs impress you when they speak without knowledge and without a conscience of what they are doing and how they are saying it.

Things happen, don't believe they are right.

(CONAGUA, PC)

This mention is related to the UN Human Rights mission to Mexico in 2011, where Olivier De Schutter, special rapporteur on the right to food, visited Temacapulín and Talicoyunque and concluded that despite the judicial decisions to protect communities against arbitrary resettlements, there are failures of compliance. The rapporteur was concerned “that the land offered as compensation will not allow the inhabitants of Temacapulín to continue growing the crops on which the livelihoods of many depend” (UN-Human-Rights, 2011).

4.5.2. Between denial and imposition

In general, the social movement against the Zapotillo dam barely exists in CONAGUA's discourse and official communications. The most notorious action that forced CONAGUA to acknowledge the opposition to the project was in March 2011, when neighbours of Temacapulín and supporters occupied the dam's construction site and stopped the works. After several days of occupation, CONAGUA and the community agreed to discuss the project in a series of dialogue roundtables and then the protesters left the construction site.

In the narrative of CONAGUA's press releases, the focus is the reiteration of the same arguments used to support the dam (CONAGUA-PR-4 to CONAGUA-PR-9). In these press releases there are only two brief mentions about the opponents:

- “...the inhabitants from the region and organisations that support them kept their stance of opposing the project and declared themselves against the relocation” (CONAGUA-PR-4).
- The University of Guadalajara “considered the possibility of making a dam of a lower height should be analysed, [but this] would not satisfy the water supply needs of the Metropolitan Zone of Guadalajara” (CONAGUA-PR-6).

In conclusion, in the narrative of the government there are no opponents, unless the opposition succeeds in becoming undeniably visible. Apart from those public “visibility” moments, the opponents to the project are voiceless or their arguments are not worthy to be recalled or documented for future considerations. Affected people are not victims for CONAGUA. They are “beneficiaries” who receive technical assistance for better lives.

4.6. Concluding remarks

In the post-authoritarian state in Mexico, a new environmental discourse was legitimised in order to establish a democratic framework for sustainability. This environmental discourse is anthropocentric and does not address social inequality. The adopted concept of “sustainable development” keeps a convenient ambiguity in the relationship between humans and the environment. Mexico adopted the United Nation’s Agenda 21 discourse on environmental development.

The new environmental rules and institutions (legislation and bureaucracy) challenged the old water bureaucracy that has been called as the hydraulic leviathan. Ever since, different discourses have competed at a government level regarding to water. In the discourse of the hydraulic leviathan, water it is an independent part of the environment. Water, therefore, can be fragmented from the environment and managed on its own. In the eyes of the water authorities in Mexico, the environment is another user of water, as is agriculture or the cities. Water is an abiotic resource. Water can be fragmented into waters, which can then

be owned and managed by different actors according to a constructed political geography established in the 27th constitutional article.

The politics of large dams in Mexico has not had significant changes on the side of the water bureaucracy. Environmentalism has not transformed the way of making dams. Instead, the water bureaucracy has adapted to the new context through mechanisms as:

- a) Simulation of environmental discourses.
- b) The use of legislation deficiencies, such as ambiguity or complexity.
- c) *Fraudem legis* or legal fraud, which is an apparent compliance of a law whilst perverting its intention (see section 7.5).

Social conflict around large dams is managed through these mechanisms. When this does not work, the old imposition and state violence methods are tried even though they are outlawed, because the post-authoritarian state still allows the abuse of power.

Documents

CONAGUA, 2012	CONAGUA. (2012). <i>Libro Blanco CONAGUA-03 Proyecto presa y acueducto El Zapotillo</i> (p. 77). Mexico D.F.: Comisión Nacional del Agua. Retrieved from http://www.conagua.gob.mx/conagua07/contenido/Documentos/LIBROS BLANCOS/CONAGUA-03 Proyecto presa y acueducto El Zapotillo.pdf ; v.i. 26 April 2014
CONAGUA, 2011	CONAGUA (2011). <i>Proyecto 'El Zapotillo – Los Altos de Jalisco – León, Guanajuato'. Sistema de Bombeo 'Purgatorio-Arcediano'</i> . México, D.F., Comsión Nacional del Agua [Conference Presentation]. Retrieved from http://www.conagua.gob.mx/CONAGUA07/Noticias/PTPI4.pdf ; v.i. 26 April 2014.
CONAGUA-PC	CONAGUA. Press conference, Guadalajara, Jal., 19 January 2012. Transcriber: CONAGUA. Retrieved from http://www.conagua.gob.mx ; v.i. 27 August 2012

CONAGUA-PR-1	CONAGUA. <i>La construcción de las presas El Zapotillo y El Realito contribuirá al desarrollo integral de la región Centro Occidente del país.</i> Press release No. 113-07, Guadalajara, Jal, 1 August 2007. Retrieved from http://www.conagua.gob.mx ; v.i. 27 August 2012
CONAGUA-PR-2	CONAGUA. Press release No. 157-09, Guadalajara, Mexico, 15 September 2009. Retrieved from http://www.conagua.gob.mx/CONAGUA07/Comunicados/BOLETiN_157-09.pdf ; v.i. 5 May 2014
CONAGUA-PR-3	CONAGUA. <i>La Conagua adjudicó la construcción del acueducto El Zapotillo-Altos de Jalisco-León, Guanajuato.</i> Press release No. 313-11, Guadalajara, Mexico, 19 September 2011. Retrieved from http://www.conagua.gob.mx/CONAGUA07/Comunicados/Comunicado%20de%20Prensa%20No%20%20313-11.pdf ; v.i. 5 May 2014
CONAGUA-PR-4	CONAGUA. <i>Continúa el proceso de diálogo entre autoridades e inconformes con el proyecto de la presa El Zapotillo.</i> Press release No. 099-11, Cañadas de Obregón, Jal., 5 April 2011. Retrieved from: http://www.conagua.gob.mx ; v.i. 27 August 2012
CONAGUA-PR-5	CONAGUA. <i>La presa El Zapotillo se construye conforme a la legislación y normatividad mexicana.</i> Press release No. 103-11, Guadalajara, Jal., 8 April 2011. Retrieved from: http://www.conagua.gob.mx ; v.i. 27 August 2012
CONAGUA-PR-6	CONAGUA. <i>La Conagua presentó ante opositores a la presa El Zapotillo las alternativas que se estudiaron y descartaron en su momento.</i> Press release No. 109-11, Cañadas de Obregón, Jal., 13 April 2011. Retrieved from: http://www.conagua.gob.mx ; v.i. 27 August 2012
CONAGUA-PR-7	CONAGUA. <i>La mesa resolutive del proyecto de la construcción de la presa El Zapotillo se realizará entre el 30 de mayo y el 03 de junio.</i> Press release No. 151-11, Guadalajara, Jal., 21 Mayo 2011. Retrieved from: http://www.conagua.gob.mx ; v.i. 27 August 2012
CONAGUA-PR-8	CONAGUA. <i>Infraestructura hidráulica como la presa El Zapotillo es estratégica para enfrentar el cambio climático: José Luis Luege.</i> Press release No. 164-11, Tepatitlán, Jal., 01 June 2011. Retrieved from: http://www.conagua.gob.mx ; v.i. 27 August 2012
CONAGUA-PR-9	CONAGUA. <i>Conagua reitera el respeto de los derechos humanos de la población para el cumplimiento de los beneficios de la presa El Zapotillo.</i> Press release No. 226-11, México, DF, 21 Julio 2011. Retrieved from: http://www.conagua.gob.mx ; v.i. 27 August 2012

5. Civil society and social movements

The post-authoritarian period has resulted in a number of changes for civil society in Mexico. During the long period of the “imperial presidency”, the state constrained the organisation of civil society to keep to a minimal degree of expression. If a social movement was considered as subversive or undesirable, the state acted against it in a disproportionate way, either with intelligence practices or open repression. With rare exceptions, mass media was controlled, de facto. News from civil society or social movements that dissented from the state were either ignored by the media or presented with a clear bias towards the state. In this authoritarian context, universities were one of the few spaces where there was degree of freedom of expression.

Democratic transition discredited authoritarian and repressive practices against civil society. Instead, democratic discourses were legitimised and claimed for the respect of human and collective rights, freedoms (e.g. expression and information), participation and accountability. The increasing insertion of Mexico into the world’s economy exposed social conflict management to international scrutiny and consequently limited the state’s authoritarian practices. One example is the Zapatista Army of National Liberation that rose up in 1994 on the very day the NAFTA came into effect. This army declared itself against this treaty and in defence of democratisation and marginalised groups, such as indigenous people. This was the first Mexican social movement in times of globalisation, and the Zapatistas gained sympathy from activists and social stakeholders all around the world. The Mexican government did not suffocate the movement in the old way. Instead, it opened a space for negotiation, establishing a precedent for future social movements in the country.

The political and economic transition of Mexico triggered the proliferation of social movements. Globalisation and the new technologies of communication and information have enhanced existing tools and encouraged the development of more tools for the organisation of social movements and the dissemination of social

messages. It also produced international networks and communities where local discourses can shape and be shaped by discourses that emerge in other places. In the environmental field, an increasing number of social movements and networks have emerged to contest environmental issues. For instance, in the case of water, social movements have advocated for the defence of environmental victims, the promotion of a new culture of water, for free rivers (as opposed to dams), among others.

Environmental social movements in Mexico have found allies in academic communities. Scholars in environmental sciences and other disciplines have contributed to shape environmental discourses of civil society and social movements. Part of the success of the movement for Temaca has been the establishing support national and international networks. A particularly important group has been the one of experts (mainly academics) who operate as advisors and interlocutors with the authorities. This group of qualified supporters has served as “translators” for the movement, in terms of helping them to interpret the technocratic language used by the dam promoters. These experts also serve as public communicators of the resistance movement, providing interviews, opinion pieces and representing Temaca in academic forums and research.

The actions and openings for civil society are explored in this chapter as a component of environmental citizenship. Section 5.1 reviews the historical context of the political transition to a post-authoritarian state and the opening-up for more engagement for civil society. Section 5.2 focuses on the social movement for Temaca; it analyses its structure, organisation and resources. Section 5.3 explores how a particular group within the resistance movement, namely network of experts, view the movement and participate within it.

5.1 Organisation of civil society and environmental social movements in Mexico

Mexico is far from being a good place for social movements. After the final post-revolutionary pacification (in the 1930s) the country developed a highly organised policy to control society and avoid any social action that could destabilise the regime.

The *Secretaría de Gobernación* (SEGOB, ministry of governability) and the army were in charge of conducting intelligence strategies to monitor and control social discomfort and potential subversive movements. My own generation (1970s) grew up fearing the CISEN (Centre for Investigation and National Security), which was the “Mexican KGB” that belonged to SEGOB. Our parents warned us to be very careful and not look like *revoltosos* (agitators) because we could be tagged by the CISEN.

The 1968 massacre of students remains one of the most sensitive memories of civil society in Mexico. The historian Jean Meyer considers that, before this event, the state’s violence was discrete (Meyer, 2010). Mexico was part of the world movement of students in the 1968 spring, joining France, the US and other countries. The Mexican government believed that student demonstrations could undermine its international image, particularly at a moment when Mexico was going to be the focus of international attention due to the Olympic Games to be held in Mexico City. Some days before the inauguration, the army slaughtered students in a demonstration at Tlatelolco Square in Mexico City. There is no knowing how many people were killed. The country changed that day. Meyer asserts:

The 2nd of October 1968 opened a serious political and moral fissure between society and the government. Ever since, the citizens’ claims have grown and contributed to the long “democratic transition” that, in a progressive way, fostered the dismantling of the political monopoly of the PRI (Meyer, 2010, p. 256, my translation).

Another historical event that marked civil society was the 1985 earthquake that devastated Mexico City, causing more than 6,000 deaths, the collapse of 1,081 buildings, damaged more than 13,000 more, such that 100,000 families lost their homes (Meyer, 2010). The insufficient reaction of the state in tackling the earthquake’s casualties produced the organisation of civil society both to attend to the emergency and to support the victims in the aftermath. In a similar way, the explosions of Guadalajara (reviewed in section 3.2.1) on the 22nd of April 1992, contributed to the organisation of civil society in Jalisco.

According to the Global Civil Society Index of the Johns Hopkins University, Mexico has one of the lowest positions regarding the health of the civil society sector, studied

in 34 countries (J.H.University, 2011). The civil society sector (or “third sector”, as it is called in Mexico) is insignificant, compared with the other Latin American powers like Chile, Argentina or Brazil. For example, in 2009, Chile had 63.8 civil society organisations per 10,000 inhabitants, Argentina 29.3, Brazil 17, and Mexico just 3.6 (Layton, 2011). In his research about the “third sector” in Mexico, Layton contends that the low development of the civil society organisation in the country is due to: a long history of government hostility towards an independent civil society; the lack of philanthropic culture; and lack of professionalization among organisations, which is correlated to the lack of resources (Layton, 2009).

In the case of the environment, Tetreault et al. (2012) highlight that social-environmental conflicts in Mexico are usually related to the existence of historically marginalised groups that are affected by the ecologically destructive activities of powerful private promoters or the state. This can be framed as the “ecology of the poor”. The authors point out that one characteristic of these movements has been the organisation of the community at a local level and their articulation within larger scale networks. Tetreault et al. identify the end of the 1970s as the moment when agricultural social movements arose as ecological movements against industrialisation. In 1991 there were around 30 peasant and indigenous people social movements in Mexico (Tetreault, Ochoa, & Hernández, 2012). More recently, social-environmental conflicts also occurred in urban contexts. The origin of these conflicts varied from the construction of mega-dams, mining activities, manufacturing industries, urban public transportation, new airports proposals or highways. Tetreault et al. observe that these social movements have adopted an explicit environmental discourse.

Horton (2006) considers that environmental citizenship is produced through: a) participation in *green networks*, in which “people orient to, perform, and develop their green identities, learning to be ‘authentic’ environmentalists” (Horton, 2006, p. 135); b) *green spaces*, where activists have face-to-face interactions, e.g. a certain cafe or venue where they can perform their “greenness” in a comfortable way; c) *green materialities* of a green life-style, e.g. bicycles, organic food, and walking boots; and d) *green time* to spend “in local, dispersed, and virtual green networks [resulting] in the

acquisition and performance of culturally appropriate knowledge, awareness, and understandings, and the ongoing reorganization of everyday life according to green cultural codes” (Horton, 2006, p. 140). According to this author, these factors configure a “green architecture” that enhances the expansion of environmental citizenship. In the case of Mexico, the “green architecture” for environmental citizenship is underdeveloped. Framed by the “ecology of the poor”, social movements of the environmentally affected have few resources (economic, organisation, knowledge), and so they seek the support of organised and resourceful organisations, whether they are environmentally oriented or not.

The technologic and information global revolution has favoured social-environmental movements of the poor. Lago and Marotias (2006) assert that in the era of the Internet, social movements have increasingly participated in global networks and are increasingly participating in the society of information. This has enhanced some transformations of collective action in social movements, such as “re-territorialisation” of protests, diversification of ways of action and transversal articulation with other social movements, both at local and global levels. The most successful social movements, according to Lago and Marotias, are the ones that have “experience in network organisation, with a certain degree of flexibility and horizontality and a creative appropriation not only of the TIC [technologies of information and communication], but also of languages, symbols, discourses and organization models ... [which allows them to undertake some] re-dimensioning their territories of influence and action” (Lago & Marotias, 2006, p. 17, my translation). According to Tetreault et al. the first networks of environmental organisations emerged in the 1980s, although many subsequently disappeared. Currently, four networks stand up in this regard: 1) the Native Corn Defence Network (RDMN, *Red en Defensa del Maíz Nativo*); 2) the MAPDER; 3) the Defence Network of the Affected by Mining (REMA, *Red de Afectados por la Minería*); and 4) the Environmentally Affected National Assembly (ANAA, *Asamblea Nacional de Afectados Ambientales*) (Tetreault et al., 2012). Clearly the space for civil society in Mexico is changing.

5.2. “The eyes of the world are set on Temaca”. Social resistance against the Zapotillo dam

Temacapulín is a town that is representative of the Los Altos region of Jalisco, [a town that is] proud of its struggle for the defence of its faith and history against the threat of the Zapotillo dam construction.

Founded in the XVI century, it has a great richness, in its lands, landscapes and culture. The miracles of the Lord of La Peñita and the Virgin of the Remedies have always protected the region; its basilica, which is older than 250 years, has been a spiritual temple that ... is an example of architectonic beauty. The inhabitants were informed in 2005 that a dam, called the Zapotillo, would be built on their community's territory, which implies the flooding of its patrimony and the displacement of their families to a population settlement; it was at that moment that they started their struggle against the projects of death and in favour of the life of the towns.

(Website of the Committee “Let us save Temaca”,¹ my translation)

This section introduces the resistance movement and reviews its organisation. The case has been studied by an increasing number of researchers from diverse perspectives: anthropology (e.g. Gómez-Fuentes, 2012), social psychology (e.g. Gutiérrez-Rosete, 2010; Jimenez-Domínguez, 2013), political theory (e.g. Von-Borstel, 2013), social movements (e.g. Delgado-Rodríguez, 2012; Lezama-Escalante, 2012), political ecology (e.g. Von-Bertrab, Díaz-Alba, & Fisher, 2011), and water economy (e.g. Arrojo, 2013). It has been the focus of reports published by the MCD (Movement for Community and Development, in English) and the Mexican National Institute of Social Development (MCD_INDESOL, 2011). The list of investigative journalism is long, it includes newspapers, magazines, radio, and “alternative media” in the Internet (e.g. Hernández-Flores, 2009, 2011; E. Ramírez, 2010; J. Ramírez, 2014; Ramírez-Flores, 2013).

I am not going to provide a detailed summary of the organization or the history of the movement. I recommend as a reference the work of the movement's legal

¹ http://www.temacajalisco.com/?page_id=20, v.i. 23 June 2014

representatives who documented the case until 2012 (Casillas & Espinoza, 2010; Espinoza-Sauceda & Gómez-Godoy, 2012; Espinoza-Sauceda, 2012). The case of Temaca and the Zapotillo dam is still open. The end of their stories can be documented when the conflict ends.

A paper by Cecilia Lezama (2012) explains the organisation of the movement in terms of the means of the resistance (Lezama-Escalante, 2012). She considers that the movement has undertaken the following course of action:

- Internal organisation of the resistance. In 2008, the “Committee Let’s Save Temaca, Acasico and Palmarejo” was founded with local members. The Committee has a bulletin, entitled *Temacapulín de los Remedios*, which has enhanced communication with the “absent offspring” (the people from Temaca who have migrated to Mexican cities or the US). The movement has been supported by NGOs, the most important of which are: IMDEC and the Collective of Lawyers (COA) (see section 4.4.5).
- Dialogue with the authorities. The movement has sought communication with local and federal governments to cope with politicians who promise help, but do little.
- Citizens’ mobilization. The movement has organised several demonstrations both in Guadalajara and Mexico City and joined other social movement demonstrations. In 2011 they organised a public consultation in Temaca, in which most of the 647 participants were said to be against the dam and the community’s relocation. This public consultation was endorsed by Jalisco’s Electoral Institute (Instituto Electoral y de Participación Ciudadana de Jalisco) and by the State’s Congress (parliament).
- Legal actions. The community has taken the case to the judicial system, demanding respect for their human and community rights. Lezama includes in this category lobbying activities with representatives and political parties.

- Participation in civil society networks and international organisations. The movement has collaborated with diverse NGOs, such as MAPDER, ANAA, the Coalition of Mexican Organisations for the Right to Water, the Latin American Network against Dams and in favour of their Communities and Water and International Rivers.
- Touristic promotion of Temaca. The community started a campaign to promote religious, ecological and cultural tourism. The objective, according to Lezama, is to rescue the region from anonymity (Lezama-Escalante, 2012). Through diverse media (e.g. radio spots) the community promotes outings to visit them and assist the town's festivities; for instance, the Chilli Regional Fair or the Remedios Race. The community uses promotional slogans such as "join the rhythm of resistance" or "Temacapulín more alive than ever". Internet social networks and alternative media are crucial for this aspect of the movement.
- Religious actions. The community is profoundly Catholic (I will address this in section 7.1). Lezama believes that the religious factor has strengthened the movement and provided them with cohesion and identity. "The movement has firmly kept its religious fervour that gives them certainty about the attainment of their objectives ... They retain the hope that in the end a miracle will produce a right strike and justice is done, making allusions to biblical passages like the fight between David and Goliath" (Lezama-Escalante, 2012, p. 147 my translation).

Susana Delgado (2012) analysed how this social movement has been constructed from historical and cultural perspectives and the impact on the everyday life of the community and its members who have lived a long period of "extreme oppression". Delgado uses two points of view: firstly, a community level where the participants have shaped the movement; and, secondly, a global level, in which the movement is part of the global resistance movements against "plunderage" and forced displacements caused by the construction of large dams" (Delgado-Rodríguez, 2012).

Delgado observes that the movement was initially shaped around the community's rejection of an imposition by a dominant actor (the State) and not around anti-

systemic and anti-capitalist (model of development) ideas. She also observes that the external supporters helped the movement to shape its resistance discourse in terms of different social-environmental perspectives, such as the perspective of human rights, of communities' rights to exist, and the defence of rivers and the environment (Delgado-Rodríguez, 2012).

This analysis of Lezama and Delgado concur with what I observed in my fieldwork trip. I only would add some elements:

Firstly, the resistance of Temaca is a cosmopolitan case of environmental citizenship (see Chapter 1) because it is not circumscribed by a political-territorial unit. It is not just an issue of the three towns affected by the dam. It is a multi-scale issue that involves the region, the state government, the federal water policies and “extra-territorial citizens”, i.e. people from Temaca living in other places, such as the Mexico's capital or the US (the concept of extraterritorial citizenship will be further elaborated in Section 4.4).

Secondly, the internal organisation of the resistance includes these extra-territorial citizens that are known as the “absent offspring”, the people who migrated from Temaca. Delgado estimates that there could be around 10,000 migrants organised in “absent-offspring clubs” in the cities of León, Guadalajara, Monterrey and the US (Delgado-Rodríguez, 2012). Absent offspring play a very important role in the movement. They attract sympathy for the case in other places and they send economic resources to fund the movement's activities in Jalisco.

Thirdly, the community of Temaca has performed successfully as social communicators. The “new technologies of information and communication” have been crucial in this regard. The movement uses:

- Websites, e.g. *Salvemos Temaca: Ríos Libres, Pueblos Vivos* (Let's Save Temaca: Free Rivers, Living Towns), <http://www.temacajalisco.com>.

- Social networks like Twitter (<https://twitter.com/VivaTemaca>) and Facebook. There are several sites on the latter, for instance: “Los OJOS del mundo están puestos en Temaca” (the EYES of the world are set on Temaca)² or “Temacapulín, pueblo autónomo” (Temacapulín, autonomous town).³ These sites are useful for the dissemination of their struggle, networking with other movements and internal communication (e.g. messaging).
- Participation in “alternative communication media”. The Internet has opened the door to free media in Mexico. During the “imperial presidency” period, media was practically controlled by the state, through the alliance with the broadcasting company Televisa that acted as a monopoly. With the transition to neoliberalism a new broadcasting concession was granted to TV-Azteca and the monopoly became a duopoly. Both companies operate in a very similar way and behave like “government allies”. Their information tends to ignore or discredit social movements. However, in the four years of my research, I have observed the increasing professionalization of objective journalism that covers social movements like the Temaca resistance, particularly through the Internet.

All these communication resources have enhanced quick reactions to external events that impact the movement. However, the movement suspects that the government has targeted the Internet access of the community in order to weaken its struggle. In several cases (not only the Temacan resistance), the Internet fails in areas where critical events are occurring (e.g. demonstrations). In the beginning of 2014 an initiative to modify the Telecommunications Act was submitted to the legislature by the President; it would have established the legal temporal blocking of telecommunication signals in events and places that could be considered critical for “public security” (Torres, 2014).

An example of this occurred in May 2014, when state authorities made a public statement about their support for the dam project and the consequent forced displacement. One of the leaders of the resistance who lives in Temaca recounted to

² <https://www.facebook.com/groups/134184409964953/>

³ <https://www.facebook.com/groups/181017201945526/>

me that they were being harassed. A group of “people from the government” entered the town by force (against the opposition of the community) and there was no Internet or mobile signal to alert the people in Guadalajara and the communication media. The next day the people of the movement travelled to Guadalajara to a press conference and the authorities took advantage of their absence to enter again into Temaca.

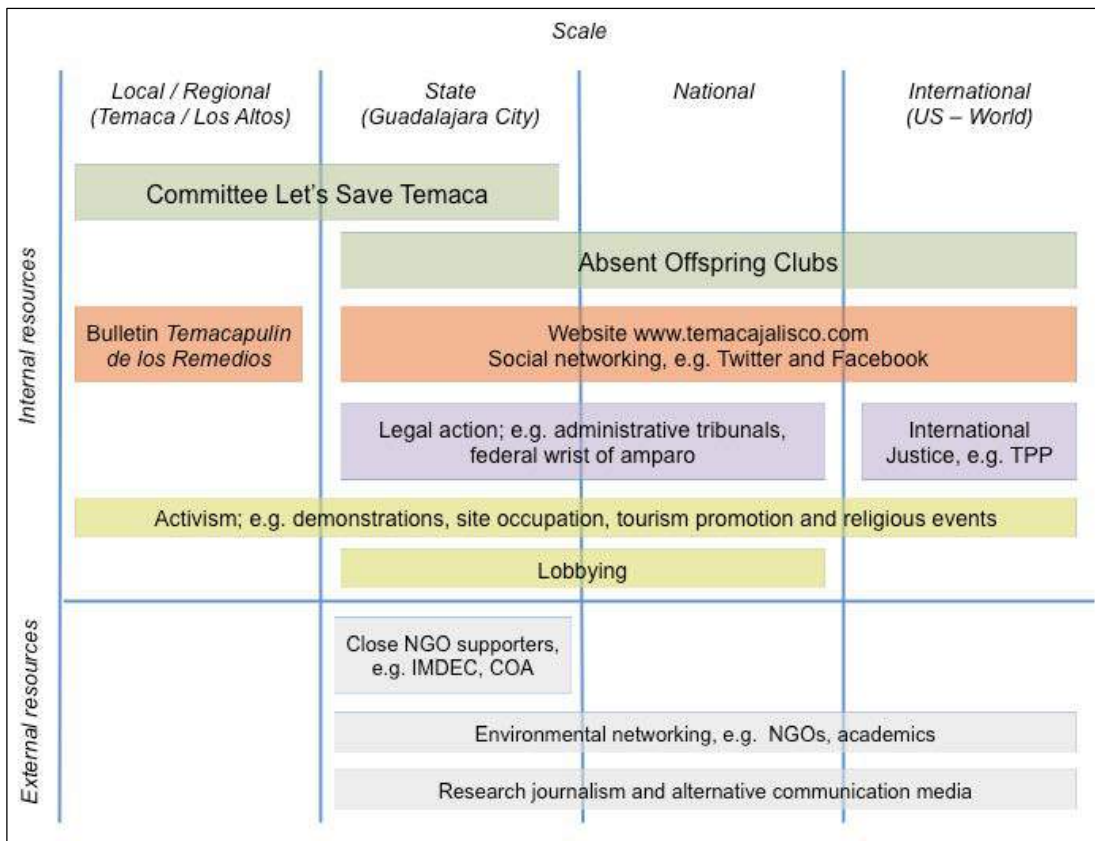
Finally, I want to elaborate on the extraterritorial legal strategy of the movement. New environmental social movements in Mexico (and I believe this is a global tendency) have sought global justice systems, given the deficiencies of their national justice systems. Although the resolutions of international tribunals are not binding, they are morally meaningful and legitimise social movements. An example is the resolution of the Permanent People’s Tribunal⁴ that judged the case and recommended that the cancellation of the project because it is violating multiple rights:

[W]e consider that the process [of the Zapotillo dam] has been characterised by a systemic and continuous violation of individual and collective rights concerning economic, social and cultural rights... [such as] the right to information and participation, the right to be consulted, the right to a proper legal process, the right to legal certainty, the right to health [and] the right to personal security. Besides, if the dam is built and the communities are flooded, the following rights would also be violated: the right to adequate housing, the right to preserve culture, the right to environment [sic], the right to sustenance and improving life conditions [and] the right to food. (TPP-México, 2012, p. 31, my translation)

To depict the multi-scalar nature of the resistance, Figure 5.1 details the various strategies and institutions involved at different levels.

⁴ The Permanent People's Tribunal was founded in Italy, in 1979, based on a "Universal Declaration of the Rights of Peoples".

Figure 5.1 Map of the resistance movement's organisation



Source: Elaborated by the author

5.3. The movement in the eyes of its supporters

In this section I analyse the group of experts who have supported the movement for Temaca. Their actions are the performance of a particular expression of environmental citizenship. I focus on this group of supporters who have contributed to the resistance movement with technical knowledge and moral support. They are considered “technical companions”; they make the people from the movement feel more confident, particularly in situations where they are treated as “ignorant” by the technocratic elites and authorities. These experts frequently seek to involve their institutions in the cause to support the affected communities. They also play an important role in the dissemination of the case in academic forums and in the mass media.

Table 5.1 reproduces the sample of external supporters who participated in the focus group session (described in Chapter 2).

Table 5.1. Participants in the focus group (Guadalajara, 20 March 2014)

Code	Participant	Expertise area	Participation in the movement
MB	Mariano Beret R.	Environmental Lawyer. Independent Consultant and Lecturer.	Sympathetic to the movement Supporter
AG	Anahí C. Gómez F.	Social Anthropologist. Researcher in the <i>Colegio de Jalisco</i> .	Expert's report for the legal defence Very active supporter, first-line activism
HO	Heliodoro Ochoa	Geographer and regional studies expert. Researcher in the Western Institute of Technology and Higher Education (ITESO).	Adviser in regional impact assessment. He has encouraged the participation of agricultural producers of the region in the case.
MA	Mireya Acosta G.	Hydrologist. Researcher in the University of Guadalajara.	Expert report for the legal defence. Support in lobbying activities; e.g. visit to the Senate.
ML	Mario E. López R.	Political ecologist. Director of the Centre of Research and Social Training, ITESO.	Advisor. Dissemination of publications about the case in newspapers.
JG	Jorge G. Gutiérrez R.	Social psychologist. Researcher in the University of Guadalajara.	Expert report for the legal defence. Participant in discussion forum to support the community.
RM	Romina Martínez V.	Environmental engineer. Coordinator of Citizens' Action and Participation, IMDEC.	Participation in the analysis of the Zapotillo project EIA. Supporter as part of the IMDEC First-line activism.

Source: Elaborated by the author with information from the focus group's recording

The discussion of the focus group centred around four open questions that will be reviewed in the next subsections:

1) What is the heart (or key aspects) of the conflict?

2) What has changed from the 20th century to now regarding dam building in Mexico?

3) What has been well done and poorly done by the community in resistance, what has been learnt?

4) What do you think is going to occur with the Zapotillo and, more generally, large dams in Mexico?

5.3.1 The heart of the conflict

The participants agree that the conflict is due not only to the difference of paradigms on development, governance or water management, but is also related to the social context of authoritarianism, state violence, government incompetence in negotiating, and corruption. I reproduce the most relevant quotes in Table 5.2.

Table 5.2. What is the heart of the conflict?

<i>Key concepts</i>	The heart of the conflict is...
Social order	"the political and economic system" (MA)
Development paradigms	"the imposition of a predator-scientific-technologic paradigm on the top of everyday-life, the world's perspectives, the life of neighbours and the sustainable alternatives" (JG)
Territory Social order	"[one of many conflicts] is the conflict for territory ... there is a traditional way [in which] the State is the owner of the territory ... [and] there is another posture of those attached to their homeland, they have an 'appropriated territory' " (ML)
State violence Rule of law	"a non-existent rule of law and a systematic pattern of human-rights violations" (RM)
Authoritarianism State's violence Corruption	"The heart of the conflict lies in the state's authoritarianism and institutional violence; in the impunity and indolence ... in the corruption and the ambition for profit" (JG) "there is in here ... a very big corruption [and] contempt for society... They are not interested in negotiating with anyone" (MA)
Rights	"the right of majorities against minorities" (RM) "There is no right that could be enforced here" (MB)

<i>Key concepts</i>	The heart of the conflict is...
Water governance	"there are here economic powers that want to manage water and the rest is irrelevant" (MA)
	"A situation of dispute for the access to and distribution of water" (HO)
Technocratic dominant elites Water governance	"it is about two paradigms in conflict ... a management model based on the "great" hydraulic engineering ... [and] a management that aims at being inclusive ... [of] diverse knowledge from other disciplines and the community's knowledge" (ML)
Government's ineptitude	"The [water authorities'] analysis of stakeholders and affected was very wrong, very distant from reality" (HO)
	"Incompetence of conflict management" (AG)
	"Incompetence of life management" (MB)

Source: Focus group's audio, my translation. The participants code is in parenthesis (see Table 5.1.)

5.3.2 What has changed in this century regarding large dams?

This question was formulated in order to identify the group's perceptions in the change of governance (to a post-authoritarian state) and construction of large dams, as part of the development of hydraulic infrastructure. In this regard, the focus group agreed on the following:

First, one of the main changes was the increased consideration for environmental issues, in general. The environmental discourse challenges the existing paradigm of water management. One of the participants asserted that under the hydraulic perspective of the 1970s, water was thought as a liquid that could be dammed, tubed and bottled without considering the whole water "machinery" (hydrological cycle) (ML). The environmental paradigm has made the social-environmental impacts "more visible" (JG); for instance, the environmental paradigm allows distinguishing between a model based on water-diet-consumption and a model of water-profit-entrepreneurial production (JG).

Second, consideration of the environmental impacts of hydraulic infrastructure projects. The group identified the report of the World Commission on Dams as a milestone in history that has questioned dams as a way of managing water.

Consequently, methodologies focused on social-environmental impacts have been used to assess dams not only in economic terms.

Third, knowledge of water has diversified away from the dominance of technocratic engineering. The emergence of new fields of knowledge around water has created new alternatives for water management. Hydraulic engineering faces the challenge of adapting to a multidisciplinary scenario (MA). Technological innovations have enhanced alternative engineering works, e.g. water extraction from deeper aquifers (HO).

Fourth, public participation has changed through the openings of a more democratic political system. The idea about the right of citizens to participate in public decision-making has been legitimised. There is a new “wave” of social movements in post-1968 in Mexico, referring to the student massacre (AG). There has been an expansion of participation, “both in the inter-sectoriality and actors that participate in common causes” (JG). In the relationship local-global, the “local” is transcendent OR has transcended the global (JG). In the case of dams, there is an “awakening of the opposition to dams”, as part of the democratization process (AG). Environmental social movements have organised national networks of the environmentally affected and have developed sustainable alternative solutions (RM).

On the negative side, the democratic transition in Mexico did not manage to change all authoritarian practices. Since the power switching in 2000, the government has, at times, “criminalised” both social protests and human rights advocacy, the PAN governments have acted as “witch-hunters” (RM). In summary, the political opening-up after the democratic transition has enhanced a more active civil society, but the political system has still some authoritarian vices.

5.3.3 Successes, failures and learning of Temaca’s resistance movement

The question about the performance of the movement was posited in black and white to provoke discussion about forms of environmental citizenship. The participants

were not judgemental; they all asserted that the movement had done its best and gave an outstanding performance, given the adverse circumstances.

The group identified several good moves made by participants in the resistance, each of which has produced community learning:

- They constructed a shared identity, as a social-environmental movement and as a community (ML and JG). The movement framed itself using environmental discourses in which a new culture of water and healthy rivers is the core, and not only in the issue of saving their communities (RM).
- They have very good skills in creating new networks and working with other networks, such as the NGOs or academics (ML). They have also engaged in other social movements and act as supporters. This movement (and others in Mexico) are promoting a discourse in society around “nobody knows when we can become environmentally affected” (JG).
- They have been “excellent communicators” because they have successfully put their message across and engaged supporters; they have awakened the sympathy and solidarity of part of public opinion (MB, RM, MA).
- They have acquired technical knowledge to understand and argue the project. “I am surprised about many of the Temaca’s activists look like hydraulic engineers when they speak; it is really impressive” (ML).

Nevertheless, they should have acquired “ethics” knowledge, rather than technical knowledge: “citizen power should not serve to debate technically, but to discuss ethical principles and develop a potent discourse on the “caution principle”, for instance, on “reasonable doubt”. I believe it is up to the citizens to demand that the government give [technical] explanations, as a result of that ethical demand” (ML).

- They have become a global movement that has disseminated its case in international forums, interacted with international social movements and adopted a global discourse.
- They have resisted long exposure to extreme pressure. The threat of forced displacement has stressed the community in all senses, i.e. physical-emotional, economic and political. They are exhausted, but still keep fighting “with dignity” (AG).
- They have adapted their community organisational costumes from traditional life around internal events (town festivities, religious events) to a social resistance movement (RM), while maintaining the community’s everyday life (JG).

The group identified some challenges for the resistance movement (or weaknesses in it). The first challenge is to overcome its “politicisation” trend. They mentioned that the movement adopted radical characteristics and “social protest” strategies too soon (ML). In this case, “politicisation” means that the movement framed itself in the antagonistic perspective of a structural confrontation between state and citizens, in a context of power structures of domination and authoritarianism.

On the other hand, the movement is challenged by another type of radicalisation. It is about what they are willing to negotiate. Some members of the community would agree with a smaller dam, which would avoid the flooding of the town, and some others have adopted a radical posture of “no dam at all” (RM). The latter group is adopting the anti-dam global environmental discourse centred on rivers, promoted by some new environmental NGO networks in Mexico.

The radicalisation of the movement hinders the use of strategies of negotiation (such as citizen diplomacy) that could be useful to get to an agreement and end the conflict (ML). This participant criticised society generally in this regard: “as academics and as a society, we have failed to enhance opportunities to create options and negotiation-closures [of the conflict] within the political centre [as opposed to left or right]” (ML).

“Politicisation” was also seen as the insertion of the movement into politics. A participant asserted that it would be impossible for a social movement to be apolitical, after so many years of conflict; sooner or later, the movement has to deal with politicians (MB). “This is a political struggle, not only eco-political; there are interests in conflict, they have to adopt political postures or have political allies” (MB). Besides, they are a target of political actors that have intentionally tried to divide them and weaken the movement; “this is precisely the intention of the state ... it is a pattern with a purpose, to erode them in psychological, emotional and economic terms” (RM). The group acknowledged that the movement has coped successfully with this “politicisation”. The community has attempted to keep political neutrality and dialogued with politicians and governments of all parties; they have kept this dialogue focused on the movement’s issues and avoided other political issues (MA).

The second challenge of the movement is its dependency on external actors (supporters) in the organisation of activities, e.g. the dependency on IMDEC, which is one of the main supporters and co-organiser of events and strategies of the movement (RM). This participant identified some difficulties for the movement to manage the diverse leaderships that have emerged within and outside of the community.

A third challenge, according to the group, was the “regionalisation of the movement”. The movement had succeeded in its articulation of its goals with social movements at a national and international level, but have not engaged enough with its region (Los Altos) and even the people of Guadalajara, where most of the population is not aware of their existence and their struggle (RM). In this regard, during the months following our focus group session, an alliance was formed between producers of Los Altos (organised in the Regional Council for Sustainable Development, CONREDES) and the resistance movement (Velazco, 2014). This alliance was fostered by academics from the ITESO.⁵

⁵ Two of the focus group participants were among them

The group reflected upon the role of society in the configuration of the movement. They criticised the general apathy of a society that does not engage in social movements and also the disconnection of the people with the environment. They criticised the common perception that regional environmental impacts are distant rather than issue that affects all (MB).

The final reflection was about the relationship between the academic or expert-supporters and the movement. They described the movement as a paradigm, a case that has opened diverse areas for research in the field of social-environmental sciences (HO). Nevertheless, at some moments the academics had high expectations of the movement. They would have liked the movement to act within the rationality of social sciences (JG). For instance, after the occupation of the dam's construction site, the government proposed to have dialogue roundtables and stop the occupation. Some academics considered the movement should have rejected this offer and not attended a forum in which they would be technically disadvantaged (JG). However, the community accepted the government proposal. The roundtables were a failure, there was neither dialogue nor negotiation. The participant that posited this issue believes that academics should learn from the movement. They should also identify, acknowledge and respect the community's processes and their need for time for learning and acting (JG).

5.3.4 Prognosis of the Zapotillo conflict and the future of large dams in Mexico

The group agreed that in an ideal scenario the government would shift from a hydraulic developmental paradigm to a new water culture, i.e. new water governance models, where water is managed under environmental and sustainable models and society is involved as a co-participant in water decision-making. Within this ideal scenario, the communities of Temacapulín, Acasico and Palamarejo not only succeed in their struggle and save their town but also continue to be engaged in environmental citizenship. In addition, the water infrastructure projects are built to benefit their immediate settlements first (as opposed to the Zapotillo dam, whose main beneficiaries are the state of Leon or Guadalajara city and not the region of Los Altos) (HO).

Nevertheless, the group was sceptical. They did not expect significant changes in water policies in Mexico. Dams will continue to be seen as water supply and electricity generation issues and vested interests in their construction will continue (HO). However they believe that national and international pressure to adopt environmental perspectives (e.g. real environmental impact assessment and mitigation strategies) will produce a change in water policies, sooner or later. In this regard, the issue of climate change may contribute to this paradigm shift.

They foresee a politically feasible agreement between the government and the movement, through the re-modification of the dam project (back to its original height), which would save Temaca from flooding. They hope that after this conflict the government learns and stops transferring the problem from one place to another, i.e. when one dam project fails (as San Nicolás, see section 2.3) it is moved to another point of the river with different affected human settlements, instead of learning to involve the communities and have real dialogue and social negotiation.

5.4. Concluding remarks

In the old authoritarian regime, with adverse conditions for social organisation, environmental victims had no real possibilities for resistance. Communities affected by the construction of large dams were already marginalised and vulnerable communities. This marginalisation implied that they were in a certain way isolated from any possible supporters and could not attract any sympathy from civil society.

In the post-authoritarian state multiple ways of civil participation have opened up and have expanded the presence and strength of social movements. Repression of social movements became illegitimate. Globalisation and communication technologies have supplied new and enhanced tools for social organisation. The existence of local and global free media (as opposed to the controlled, de facto, mass media) and communication technologies have increased the visibility of social

movements, making them less vulnerable from authoritarian vices and enhancing the sought-after social alliances.

In the social movement for Temaca, these elements can be appreciated. The network's organisation has allowed the movement to operate at diverse levels, disseminate their messages, obtain supporters from civil society, participate in global and local networks, and obtain access to international justice systems. All these novel resources of environmental social movements, like the one for Temaca, challenge the government's capacity for control. Bureaux like CONAGUA were skilled in dealing with isolated communities that were affected by dams, through the use of intelligence or repressive methods. This technocracy is not accustomed to operate in the different spaces opened by the movement's network and a better organised civil society.

The heart of the conflict around the Zapotillo dam, according to experts that support the movement, is the state model. Firstly, the model of development is more predatory than sustainable, and the state is conceived as the original owner of natural resources and territory; this position is bolstered by the constitution (Chapter 3) and CONAGUA (Chapter 4). Secondly, because they are still authoritarian, water authorities tend to use impose their methods, violence, and mechanisms to evade the law, trample on citizens' rights, and defend their monopoly of technical knowledge. Third and lastly, the government has been corrupt and inept in dealing with new civil society.

In the post-authoritarian state, there is a tension between environmental social movements and authorities that has not renounced the use of state violence. Environmental conflicts, like the case of Temaca against the Zapotillo dam, usually rely on the capacity of social movements to resist, which has increased with the democratic transition. It is also possible to think of resistance in a different way. In the post-authoritarian era, the state resists change and is reluctant to abandon authoritarian practices and avoids adopting democratic environmental discourses. The action and endurance of social movements against projects that are regarded as unfair and unsustainable could overcome government resistance and produce positive changes for inclusive environmental governance.

Although it is not the only factor, the interaction with experts (academics, activists and NGOs) has had positive effects on the movement's efforts to overcome government resistance. It has influenced the framing of the movement, which now incorporates environmental discourses. The movement frames itself as a movement of environmental citizens who are defending their individual and collective rights to environment and homelands. It has become a cosmopolitan movement that operates at local, regional and global scales. Experts have helped to fill the knowledge gap between the technocratic knowledge used by the authorities and more local forms of knowledge. The acquisition of technical knowledge helps the movement to feel more confident when its members deal with authorities (reducing the possibility of being deceived). It also helps them to communicate their message to society in a more convincing way. Experts have also brought new ideas and strategies. Examples of this are the alliance with the agriculture and livestock producers of Los Altos and the promotion of the town as a touristic attraction to make it more visible and more appreciated in public opinion.

Expert supporters, however, were concerned about the politicisation and potential radicalisation of the movement. Some suggested that the movement should avoid politics while others believe that is not an option. Radicalisation is understood in terms of the adoption of extremist political positions or, in this case, radicalisation implies that the movement adopts an approach of antagonism between authoritarian state and society. This approach is shared by many social movements for different causes in Mexico, particularly the ones that emerged under the old regime.

Politicisation and radicalism raise concerns about emerging forms of environmental citizenship that face the risk of co-option by other interests. While this has not occurred in this case, it raises questions about environmental campaigns more broadly in Mexico. In the resistance movement for Temaca, a key concern is how the campaign shaped the environmental identities of those involved. The expert group would like to see participants become involved in issues beyond the immediate dam. They hope that social movements like this contribute to create more environmental citizenship not only at a level of individual issues but more generally as concerned

environmental citizens of the region, the nation, and the planet. The next chapter contrasts these lofty expectations with how the community sees itself.

Chapter 6. Community responses

Between four hills is my town.
Between four hills is my home.
Between four hills is Temaca,
The hidden town where I grew up.

I went to the North [US] to progress,
Come back to Temaca and live in peace,
With my family that is waiting for me
Because my heart in Temaca lives.

Temaca, Temaca, Temacapulín
Temaca, Temaca, I love you.

Now they spin us a tale, mermaids' singing.
They speak nice, they want to confuse us.
They speak of a dam, the Zapotillo,
Where Emilio¹ wants to have a bath.

They speak of money, a new settlement.
They promise heaven, hard to believe.
That's why, my friend, I invite you now:
In the Collective, let's fight.

Temaca, Temaca, Temacapulín
Temaca, Temaca, I love you.
(Anthem)

This is my translation of the lyrics of the song *Entre cuatro cerros* (Between four hills) that is the *corrido*² or anthem of the resistance movement for Temaca. It was

¹ It refers to Emilio González Márquez, governor of Jalisco from 2007 to 2013.

² Mexicans love popular music, not only as popular art, but also as a way of preserving oral histories. The *corridos* are songs that tell stories about what has happened, about heroes or antiheroes, about any significant event for communities. From a critical perspective, they express particular discourses and reflect collective perceptions. Mexican *corridos* originated in the last period of the colony as it is a genre that derived from the Spanish *romances*. The use of popular language and musical style has evolved over time.

composed within the context of the national meeting of MAPDER, held in Temacapulín in 2008. This *corrido* synthesises how the community feels about the Zapotillo dam and reflects the social historical problems that affect them, such as migration. The song is written from the perspective of “absent offspring”, migrants that left the town but keep their identity as members of the community and have a strong belonging to their country.

The purpose of this chapter is to explore the forms of environmental citizenship emerging at a community level in the case study. The analysis addresses the community of permanent residents of Temaca, and not the “absent offspring”, which are part of the extended community. Temaca is a typical small rural town in Mexico, which maintains local traditions and customs. It is a community where time, if not stopped, seems to pass slowly. The threat of the flooding of their town and the community’s relocation has changed their lives. However it is not the only factor of change for them.

The population is decreasing as people migrate to larger cities or the US. Out-migration is related to the lack of services and opportunities for new generations, including deficiencies in education and employment. Temacapulín has been historically marginalised from development and political events at state and national levels. In this chapter I contend that the Zapotillo dam project is a case of environmental victimisation, but the community were already victims of slow violence by the state. This argument is explored in the first three sections. Section 6.1 reviews some theoretical approaches about environmental victimisation. Section 6.2 frames the community in its historical context of marginalisation. Section 6.3 analyses the meaning of the proposed relocation (part of the Zapotillo dam project) for the community of Temaca.

Due to this marginalisation and isolation from the national context, environmental citizenship in Temaca is strongly shaped by the local context. The final section (6.4) looks into the narrative about the past and present of the community and its relationship with the environment (particularly with the Verde River).

6.1. Environmental victimisation. Insights from the literature

Mexico, like many other Latin American countries, has a regime where the political corporatism and classist culture have created an underclass of citizens, where the dispossessed and poor do not count. It is a regime that Nixon describes as perpetrating “slow violence” against the poor,³ defined as follows:

By slow violence I mean a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed at all (Nixon, 2011, p. 2).

Nixon focuses on the “environmentalism of the poor”, an idea that has emerged in contrast to the “conjoined ecological and human disposability” that neoliberalism has produced and affects those who have less. In a situation of slow violence, the poor or the environmentally affected tend to be invisible. Nixon explores narratives of development in mega dams and what he calls “developmental” refugees. He considers that behind the forced displacement of communities for building a dam there is a narrative of development that makes the affected invisible:

Crucially the dynamics of forced removal depended both on direct police violence and on the administration of an imaginative violence whereby certain communities were designated indispensable to the nation and others designated expendable and driven—literally trucked—out of sight (Nixon, 2011, p. 151).

According to Nixon, communities that used to live as an “ecosystem people” (i.e. depending for their survival on their immediate environment) are converted from inhabitants to “virtually uninhabitants”, which means they live in an area that has been designated for a different purpose in the narrative of development. Nixon observes that “People viewed as irrational impediments to “progress” have been statistically—and sometimes fatally—disappeared” (Nixon, 2011, p. 153)

³ Nixon differentiates “slow violence” from “structural violence”. The latter that pays more attention to causation and agency.

White (2013) also adopts this view of victimisation, taken from a perspective of environmental harm. Under the ecological perspective, harm is related to ecological sustainability; it “is conceived in the context of ecological wellbeing and holistic understandings of interrelationships between species and environments” (White, 2013, p. 21). Harm can also be understood in terms of environmental justice, which is concerned with the “unequal distribution of environmental disadvantage”. White asserts that “Environmental justice thus refers to the distribution of environments among peoples in terms of access to and use of specific natural resources in defined geographical areas, and the impacts of particular social practices and environmental hazards on specific populations” (White, 2013, p. 21). The “environmental justice” discourse (that works at the individual level) is generally adopted by the poor and disadvantaged who suffer the impacts of collective environmental issues to a bigger extent (White, 2013).

According to White, environmental decisions depend on the expertise, power and participation of stakeholders in decision-making. Being an environmental victim is tied up with the relationship with the perpetrators of harm, in terms of power, domination or exploitation. The victims’ circumstances (in social, economic and political terms) make them “suitable” victims. In White’s words: “environmental victimisation generally involves, on the one hand, powerful players such as corporations and nation-states and, on the other hand, less powerful groups such as indigenous people, ethnic minorities, the poor and those less able to take care of their own interests” (White, 2013, p. 23).

White observes several features of the phenomenon of environmental victimisation:

- a) Victims may be deemed “socially expendable”, as groups that are regarded by society as “degraded”; nobody cares what happens to them;
- b) It entails a relationship of submission to the powerful, which has to be challenged by the victim when trying to react against the “perpetrators of environmental harm”;

- c) Environmental victims may not frame their problems in “strictly environmental terms”; and
- d) Victims may distinguish between human-made harm and natural disasters by considering that the latter may be produced exogenously (e.g. by God). As White observes: “Something that it is seen to be “naturally” caused or created tends to not generate the same anger, angst and conflict as that which is perceived to be due to human error and/or conscious intervention” (p. 25).

White observes that the mobilisation of environmental victims is different from environmental activism; the victim’s scope can be narrower and more prosaic. To understand the dimensions of environmental victim activism, White distinguishes two groups depending on the focus they adopt: the limited-focus group and the expansive-focus group. The limited-focus group is characterised by its spontaneity, exclusivity to survivors/victims, localism, material relief, top-down leadership, rectification, appeals to authority, action motivated by loss, and its victim focus. The second group (expansive-focus) is characterised by its organisation, inclusion of outsiders, globalism, abstract principles, democratic and participatory forms of engagement, transformation, self-governance, action motivated by future, and victim interests linked to new social movements and wider struggles (White, 2013, p. 26).

From a theoretical perspective, environmental victimisation is suitable to frame cases like the community of Temaca, which has been historically marginalised from the national development and now is threatened by the dam project. Nevertheless, environmental victims can also be environmental citizens. This role as citizens is explored through the rest of this chapter.

6.2. Why Temaca?

In the eyes of the government the logic is straightforward. Temacapulín is located at the bottom of a canyon in a site with geological signs of a river’s historical flood plain. The area is suitable for dams, from a technical point of view. Temaca is a town with a

very small population that has been decreasing due to migration and the aged demography structure. The last census reported 332 permanent residents (COEPO, 2011) who would be affected versus millions of people who would receive the benefits of the dam. Nevertheless, the narrative of the community is completely different.

Figure 6.1 Images from Temacapulín



Source: Photographs by the author, 2009 and 2013

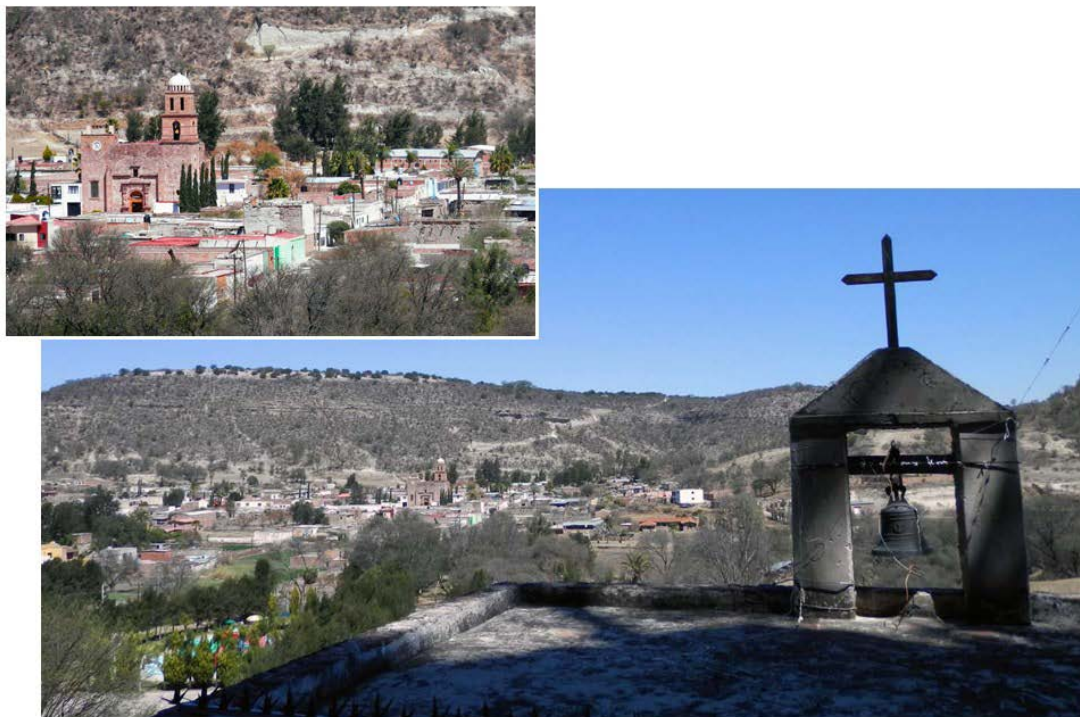
People from Temaca describe their town as being surrounded by four hills: the hill of the glory, the hill of the owl, the hill of the cross and the flat-topped hill. On one of the hills there is an inscription that can be read from the town: “Since the 6C Temacapulín greets you”. According to Von-Borstel (2013), this inscription is supported in archaeological findings that suggest that the first human settlements occurred in that century. The name Temacapulín comes from the Nahuatl *Temacapollin* or *Temacapuli*, the linguistic root of which may come from the word *temaxcalli*, that refers to the steam baths in the natural hot springs of the area (Von-Borstel, 2013).

The community recalls several key moments in the history of Temacapulín. In 1530, the Spaniards started to conquer the area. A general indigenous rebellion of 1541,

known as the Mixtón War, lasted eight days and produced 20,000 deaths and thousands of slaves (Delgado-Rodríguez, 2012). Nevertheless, it is the last century that has been critical for the community. Temacapulín is part of the region of the Cristero War (also known as the *Cristiada*) in the late 1920s, when Catholics rebelled against the secular reforms of President Calles. People recall that government troops had decided to set on fire the town, but they changed their mind because they realised it was a pacific community (Del-Castillo, 2010). In the last six decades, Temacapulín has been threatened by the construction of large dams: "All the time they have wanted to make dams in this area. In 1947, La Zurda [dam]; in 1989, again, ... and five years ago, the San Nicolás dam. Now they want to flood us", declared Alfonso Iñiguez, one of the seniors residents of the community in 2010 (Del-Castillo, 2010).

According to Von-Borstel, it was in the 1990s that Temaca started to be a regional place for leisure (Von-Borstel, 2013). The town has multiple touristic attractions, both natural and religious. Within an area of dry climate and seasonal rains, the surrounding environment has multiple natural beauties, such as crag landscapes, waterfalls and hot springs. As a religious destination, the main attractions are the colonial style, Catholic temple, the Basilica of *Nuestra Señora de los Remedios* (Our Lady of Remedies), that was built in the 18th century and in December 2014 will celebrate its 255th anniversary (Von-Borstel, 2013). A second religious attraction is the *Cristo de la Peñita* (the Christ on the Crag) that is a natural formation on the side of a crag known as the Hill of the Cross, which resembles a Christ on a cross and is venerated by the Catholic community.

Figure 6.2. Views of Temacapulín, from the Hill of the Cross



Source: Photographs by the author.

The community lives from agricultural activities. According to Delgado (2012), families have properties in the surrounding area of the town where they grow: chillies (the emblematic crop of the town), corn, beans, peanuts, pumpkins, cucumber, barley, oats, alfalfa, watermelon, melon and yam beans. They have also livestock, although this is not significant compared to the agricultural products (Delgado-Rodríguez, 2012). Temaca is not a poor town. It has low levels of marginalisation, according to the marginalisation index (used in Mexico to measure poverty) (COEPO, 2011), compounded of variables on education, housing and income.

Nevertheless, like many communities in Mexico, Temaca has been left behind. To some extent it has been marginalised by development. The road to Temaca was opened less than 25 years ago and just two buses run per day to the town of Tepatitlán (Delgado-Rodríguez, 2012). To arrive from Guadalajara, the state's capital, it is necessary to take the toll road and then approximately 50 km on the local road that is in poor condition. With few services, no high school, poor telecommunications and no real opportunities for progress among the young people. Migration is one of the reasons for the population's decrease. In his journalistic investigation, Del Castillo

reports that Temaca reached 1,200 people. Some residents recall that when they were born there were around 30 births per year and now there is barely one. The diaspora of the people of the community to large cities or the US is high (this topic will be addressed in Chapter 7). Some residents estimate that there can be around 10,000 “absent offspring” (Del-Castillo, 2010).

During my fieldwork activities I noticed that the people of Temaca have developed a perception of autonomy. They assert that since the state has left them aside, they should not be sacrificed now. They do not need the state. They have lived on their own, without the state and its benefits. Neither do they ask for anything. Thus they wonder why the state wants to eliminate a community that does not request anything, a community that is productive, self-sustained and peaceful.

The settlement of Temacapulín belongs to the municipality of Cañadas de Obregón. Municipalities in Mexico are the third level of government and political organisation, after the federation and the states. There are 2,245 municipalities in Mexico, each of which is governed by an *ayuntamiento* (municipal council), headed by the Municipal President. This council is elected every three years. It was not until February 2014⁴ that the re-election of the *ayuntamientos*’ members was allowed. The 1917 constitution had banned re-election of the executive at all levels, i.e. federal, state and municipal. The short period of the *ayuntamientos* and the public budgetary concentration at the federal level have been factors in the poor performance of municipal governments and low development of rural municipalities in the country.

According to Del Castillo, the relationship between Temacapulín and Cañadas de Obregón has entailed tensions and rivalries. Temaca existed and developed earlier than Cañadas. The residents of Cañadas had to go down to Temaca to use the river’s water for washing their clothes. However, in 1903 the latter was established as a municipality and Temaca as one of its settlements (*delegación municipal*) (Delgado-Rodríguez, 2012). Thus Cañadas collects and manages the municipal revenues and receives and manages the federal and state contributions.

⁴ The amendments were published in the *Diario Oficial de la Federación*, 10 February 2014.

The municipal government of Cañadas has not supported the resistance movement for Temaca. The municipal president declared in 2010 that the benefits of the dam would be greater for the municipality compared to the loss of the town. Inhabitants of Temaca refer to several stories of conflicts between their community and the people from Cañadas (Del-Castillo, 2010).

Ever since the flooding of Temaca by the Zapotillo dam was announced, the community feels more marginalised from the interaction with the different levels of government. For instance, plans to extend the telecommunication infrastructure (phones, mobiles and internet) were stopped by the authorities. They are already treated as a dead town, even though the conflict has not been solved and there still exists the possibility that they will succeed in their struggle to save the town.

In sum, although the marginalisation index considers that Temaca has low levels of marginalisation, Temacapulín is, in fact, a historically marginalised community. During my fieldwork, I heard from the people of Temaca comments about how the community feels that they have not received any benefit from the State (at federal, state or municipal levels), at least not since the 1950s when the elementary school was built. It is a community that feels proud of enduring despite this abandonment, of being productive and living in peace. They cannot understand why a government that has been invisible to them asks now for their sacrifice in the name of remote urban populations, through a project full of irregularities.

6.3. Talicoyunque, the proposed relocation

According to CONAGUA, the communities affected by the Zapotillo would be relocated to two new settlements: Nuevo Temacapulín (New Temaca, also known as Talicoyunque) and Nuevo Acasico (New Acasico). The latter would have an extension of 31 ha and 103 houses (CONAGUA, 2012). There is no information about the

construction of Nuevo Acasico. The available satellite imagery (Google Earth, date 4/3/2013) shows no signs of it⁵.

Talicoyunque would have an area of 41 ha and 239 houses. It is located in the latitude 21' 10' 33" N and longitude 102' 41' 43" W. In 2010 the Tribunal on Administrative Affairs of Jalisco (*Tribunal de lo Administrativo del Estado de Jalisco*) ruled the suspension of its construction because it did not comply with the municipal land planning rules regarding public consultation procedures. The authorities ignored this judicial ruling and continued the construction of Talicoyunque (Velazco, 2013). To demonstrate their nonconformity, members of the community, people from the movement and supporters occupied the construction site in November 2010. Thereafter, the authorities have reinforced the security of the site and forbidden access to it. In February 2013, the municipality of Cañadas de Obregón closed down the site and the works were stopped (Velazco, 2013).

Figure 6.3. Talicoyunque, the proposed New Temaca



Source: Photographs by the author

⁵ According to CONAGUA, the location of Nueva Acasico would be: latitude 21' 12' 37.86"N and longitude 102' 49' 41.61" W (CONAGUA, 2012).

During my fieldwork activities I could not access the site. Parts of Talicoyunque could be seen from the distance. The available satellite imagery (Google Earth, date 4/3/2013) shows around 30 houses, which is around 12% of the 239 houses projected by CONAGUA. Talicoyunque has a projected layout similar to urban public housing suburbs: houses have all the same urban design, duplex arrangement and few green areas. Participants from the community do not see their future lives in the proposed settlement, living in small houses built closely together.

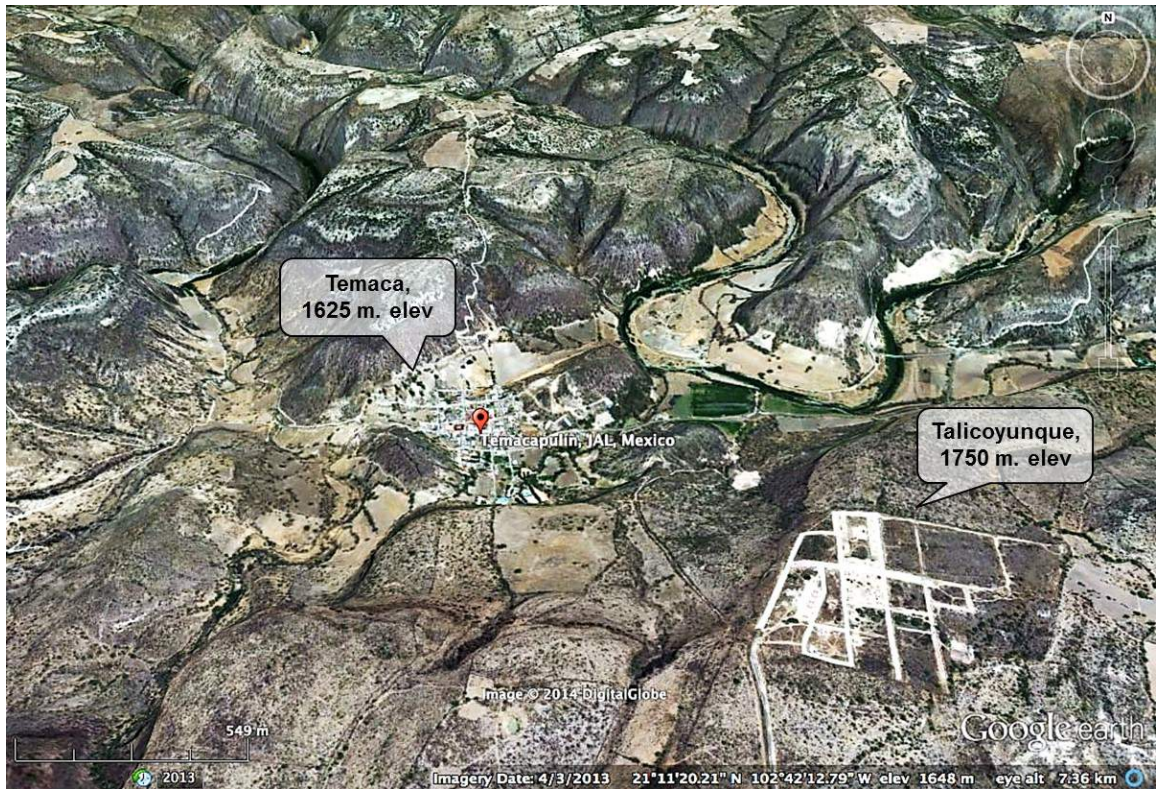
Figure 6.4. Houses in Talicoyunque



Source: Photographs by the author

Talicoyunque is located in an arid and reduced plateau on the top of the canyon that would have a view of the dam reservoir (and the flooded Temaca) but no easy access to the water. Talicoyunque has an elevation of 1750 m above sea level, whilst Temaca's elevation is 1625 m. In the satellite image (Figure 6.5), the geographic characteristics of both locations can be appreciated. If the community of Temaca is relocated they will not have fertile land to grow their crops as they used to.

Figure 6.5. Satellite image of Temaca and Talicoyunque



Source: elaborated by the author with imagery from Google Earth

Temacapulín can be seen from Talicoyunque. The participants in the PRA asserted that if the dam is completed and they are relocated, they would be able to see part of the church's tower, when the dam's water level is low. Watching Temaca flooded from a place to which they are relocated against their will can produce psychosocial negative effects on the community. One of the participants, María Félix Rodríguez, commented: "After fighting so hard, if we lose and are relocated up there ... I couldn't ... I'd die of embarrassment" (PRA-Audio).

Figure 6.6. Temaca seen from Talicoyunque



Source: Photographs by the author

6.4. The Zapotillo dam and the community

According to the participants in the PRA workshop that I organised in Temaca in March 2013, the news of the plans to flood the town and the proposed relocation of the community arrived first as rumours. In 2005 these rumours were confirmed when CONAGUA went to the community to inform them and start intimidations and harassment in order to convince them to sell their properties to the government.

In the eyes of the community, the events around the Zapotillo dam project have been about intimidation, spread fears and divisions in the community. The divisions have come from the group of residents that has given up resisting and has already negotiated with CONAGUA. In the PRA workshop I asked the participants to elaborate together a timeline of the main events of the conflict. Participants were asked to identify points in a time “before” and the main events of “today” (23 March 2013). They identify the following:

- “Before”. Participants spoke of the beginning of the conflict, which was set at 2005.
- 22 September 2007, the CONAGUA misled and lied to people to make them sign an agreement.
- 2008:
 - May. When “lawyers” went to town to inform people about the displacement and people from the government put posters in the main square and distributed flyers to all the houses; they were public notaries (“lawyers”) certifying that the people had been informed of the project.
 - 15 June. The cemetery demonstration. This was their first demonstration; they stopped the CONAGUA people coming into the town, and blocked the road, outside the cemetery.
- 2009, approximately⁶. State police and the army occupied the main square.
- 2010:
 - May. When they received notifications about forthcoming expropriations of their properties.
 - November. When they occupied Talicoyunque (or new Temaca), the settlement in construction, where they are supposed to be moved to. It was the first occupation. Participants referred to it as very shocking for them although, despite their fears, they stayed for around 20 days.
- 2011:
 - March. The occupation of the construction site of the dam wall.

⁶ The participants did not recall the exact date.

- April-May. The dialogue roundtables between the community and CONAGUA, which became part of the agreement to stop the construction site occupation.⁷

- November-December 2012. The announcement that the keys of Talicoyunque's new houses were going to be delivered soon (i.e. the houses would be ready for occupancy very soon).
- "Today", 23 March 2013, when the PRA workshop was conducted.

These moments are evident in the experiences shared by the participants in the PRA session. They were invited to write some experiences or thoughts in post-its and stick them on the timeline. Table 6.1 reproduces their posts.

Table 6.1. Timeline and personal experiences / thoughts of the participants

Event	Personal experiences / thoughts
2005 Before	<ul style="list-style-type: none"> • My first nightmare. • In 2006, CONAGUA threatened me [they said] if I did not sell my properties, they would not pay me anything. • The news of 2005 was a big shock. • When they told us either you leave or you will be drowned and when the government came 2005.
2009, approx. State police in the main square	<ul style="list-style-type: none"> • When the state [police] threatened us because we were [video] recording. • When the army came, my husband [video] recorded them; they went out [to the car?], they were very angry, they took the cam and deleted what he had recorded. • 2009 was also a nasty surprise. • When the state police came and shouted at us because we were taking pictures of the patrols, because they had no plates. • I felt, when CONAGUA came, that we had to sign, we felt a lot of impotence. • Fear and anger, impotence.
May 2010	<ul style="list-style-type: none"> • My daughter called me crying [saying] that we were to be evicted at

⁷ This event will be analysed in section 4.4.2.

Event	Personal experiences / thoughts
Expropriation notifications	<p>midnight.</p> <ul style="list-style-type: none"> • 2010 was a huge fright when they told us they were going to expropriate. • I felt like [I was] outside myself.⁸
November 2010 Occupation of Talicoyunque	<ul style="list-style-type: none"> • Problems with my family because they didn't want me to be there. • Sadness and anger to see where we were going to be relocated. • A very depressing demonstration in November 2010.
March 2011 Occupation of the dam site	<ul style="list-style-type: none"> • When we were in the Zapotillo's occupation, risking our lives. • Problems with my children. • It was something very difficult, to confront the government. • People criticised us. • The occupation of the Zapotillo was a big sorrow for the whole town. • Liver disease, I was in hospital 7 days. • Problems with my husband.
April-May 2011 Roundtables	<ul style="list-style-type: none"> • Psychological wear • Humiliation • Discrimination
Nov-Dec 2012 Talicoyunque key delivery	<ul style="list-style-type: none"> • When they were going to deliver the keys to Talicoyunque, the people of CONAGUA crossed by and stepped on our colours [sic] and 2 children were almost run over.
Today [23 March 2013]	<ul style="list-style-type: none"> • Depression. • I feel very tired and exhausted, I ask God that all this finishes soon. • I feel very nervous. • My husband's family has been disunited.

Source: PRA-Poster4

These perceptions of the participants revealed the distress that the community was living under. Other scholars have explored the psychosocial effects on the community because of the Zapotillo dam project. In her research *Temacapulín – plunderage and resistance*, Delgado asserts that the long conflict around the dam has subjected the community to a long period of “extreme oppression” (Delgado-Rodríguez, 2012). This situation has produced significant impacts on Temaca, both at community and at personal levels. The community claims that the threat of the dam has produced disease and deaths, mainly in the aged population.

⁸ “Me siento como fuera de serie”, in Spanish

Participants talked about the general distrust and lack of information. Personal decisions have generated a constant conflict between neighbours and within families. The people who had already negotiated with the government sold their properties and received the title deeds for homes in the new settlement. They were told that they could stay in their Temaca properties as long as the relocation had not started. They do not know exactly who and how many have made this deal with CONAGUA. The participants in the PRA believed that few people had come to an agreement with the authority and, they say, they are people who own properties but are not permanent residents. They perceive that the people who have already negotiated have weakened the resistance movement.

Gutiérrez Rosete and his team conducted psychosocial research to assess the impact of the dam project on the community (Gutiérrez-Rosete, 2010). They analysed groups of adults and children to observe the existence of anxiety and post-traumatic stress disorder. The threat of forced displacement in the community, according to this research, produced “suffering, depression, anguish, anxiety, sadness, fear, demoralisation and difficulties to cope with the situation that the community is facing” (Gutiérrez-Rosete, 2010, p. 12, my translation). According to the scale for DSM-IV post-traumatic stress disorder, the research reported that 79% of the people suffer from this disorder in a chronic way; the aged population being the most affected. With a methodology based on the State Trait Anxiety Inventory, the results show that 26% have a high level of anxiety-state (43% have a medium level) and 16% have a high level of anxiety-trait (44% show a medium level) (Gutiérrez-Rosete, 2010).

Other research by Jiménez-Domínguez was based on the foreseeable psychosocial effects of forced displacement (Jimenez-Domínguez, 2013). He refers to the relationship between depression and migration; depression is more severe in cases of forced migrations. The research results showed that the resistance movement has been partly sustained by the strong identification of the people of Temaca with their town, its geography and its strategic location. “The isolation of the location has contributed to the development of its autonomy through mutual help between the

natives and the strong regard for their surroundings” (Jimenez-Domínguez, 2013, p. 168, my translation). The threat of displacement, according to Jiménez, has produced a noxious and destructive disruption of the life style of the people. The authority’s abuses and threats have produced internal conflict and a general distrust in the community.

Conflict and resistance have changed the landscape of the streets in Temaca. Everywhere there are banners from those who have resisted and refuse to negotiate with CONAGUA. Many houses have put banners on their façades. A common motto is: “This house is not for sale, not to be relocated, not to be expropriated, not to be flooded. Respect what is not yours. Leave us in peace”. Another frequent motto is: “The eyes of the world are set on Temaca”, which is one of the slogans of the movement. Figure 6.7 contains some pictures of these banners.

Figure 6.7. Protest banners on façades



“Mr. President Felipe Calderón Hinojosa:
No to the Zapotillo dam on the Verde River that
will flood Temacapulín Jalisco”



“This house is not for sale, not to be relocated,
not to be expropriated, not to be flooded.
Respect what is not yours. Leave us in peace”



"This is the house of our grandparents and we don't want it to be destroyed because here we lived happily and our memories are here. We don't want the relocation! We want our rights to be respected!"



"This home is Catholic and does not receive any kind of propaganda ... even less if it comes from the traitor government, those who try to destroy our beloved town ... Get out!!! You are not welcome. Don't even dare to knock on the door!!! No to Zapotillo!!!"



"This house is not for sale"



"Temacapulín ready for struggle / United for the cause / No to the Sapotillo [sic] dam"
"The only fight that is lost is the one that is abandoned"

Source: Photographs by the author.

6.5. Life before and after

In my analysis of the community I realized that it was necessary to distinguish between the phenomenon of victimisation and the local perceptions and narratives regarding the community and the environment. In other words, the community has certainly been victim of historical slow violence and now it was chosen as "socially

expendable” by the Zapotillo dam project, a phenomenon explored above. Nevertheless, the people of Temaca are not only victims.

In the PRA session conducted in Temacapulín the participants were informed that the research was about the Zapotillo dam and then asked to represent graphically the life of the community before and after. Two separated teams worked on two posters with these themes. When this activity was planned, I assumed that the reference point (i.e. the breaking event between “before” and “after”) was the project of the Zapotillo dam and the participants would think in relatively short periods of time. Nevertheless, the participants assumed a much longer time-frame and the point of reference was not necessarily the dam project.

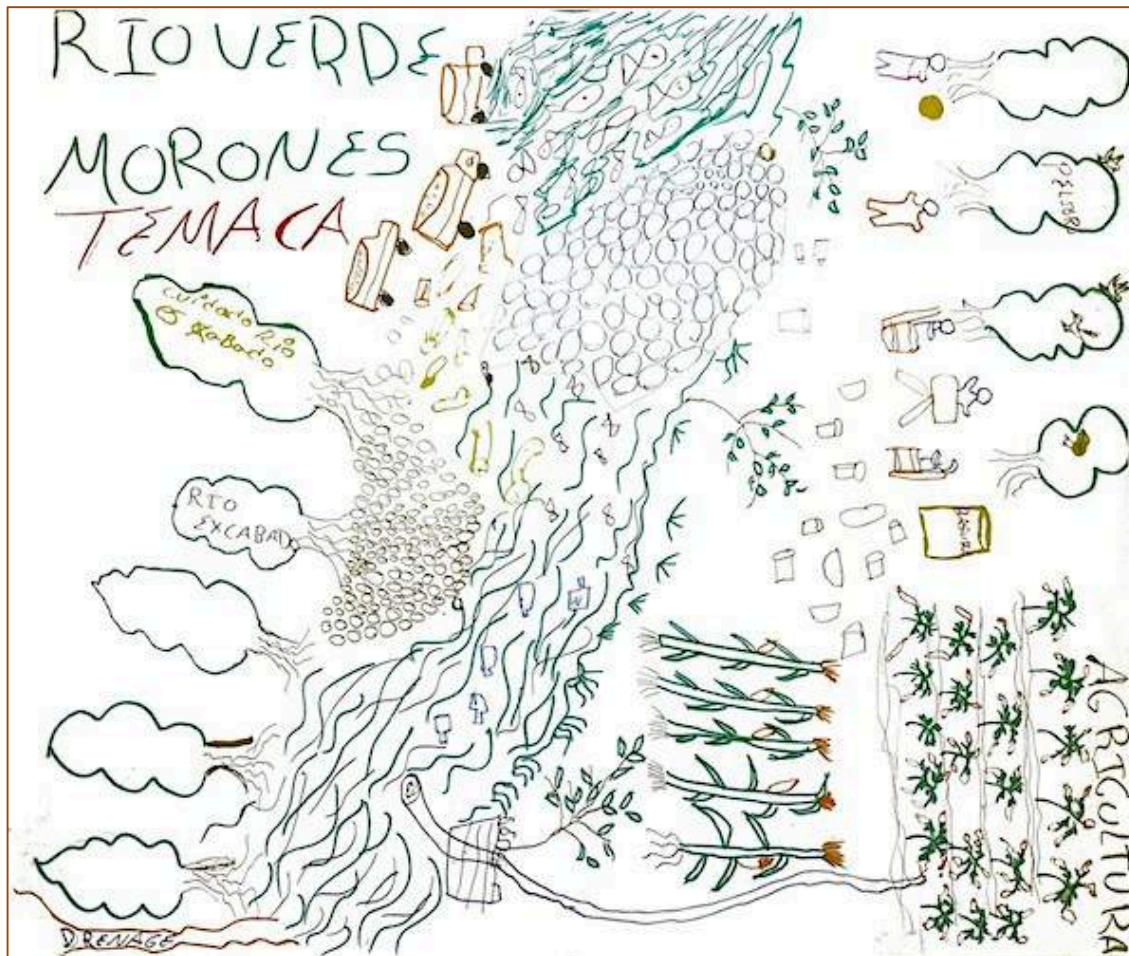
They framed “before” and “after” in relation to the environmental deterioration of the Verde River. Figures 6.8 and 6.9 reproduce both posters, which will be analysed in detail below. Each team presented its poster and there was an opportunity for questions and discussions.

Figure 6.8. The life in Temaca before



Source: PRA-Poster 1

Figure 6.9. The life in Temaca after



Source: PRA-Poster 2

6.5.1. Life in Temaca before

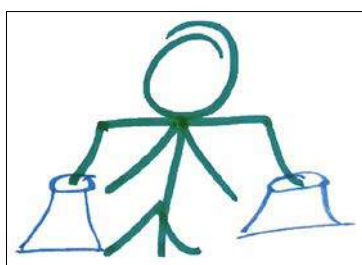
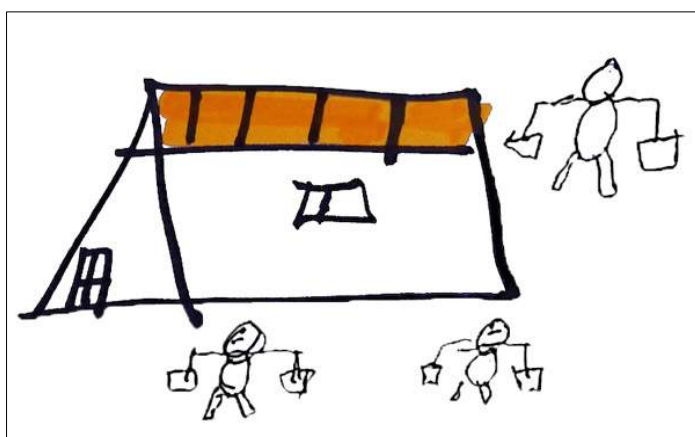
The team that elaborated the poster for “before” started its presentation with this phrase: “There were a lot of trees” (PRA-Audio). There were also a lot of people, more houses, and more cattle. This perception refers to the decrease of the population in recent decades (perhaps the last half century) due to the intense migration from this region.

“The river [had] a lot of fish, crystal clear water, clean, and ... not like it is now” (PRA-Audio). They represented the *charcos*, which are the natural hot springs that made the town popular as a spa, in the past (Figure 6.12).

These holes are mainly pools within private hot spas, apart from the communal pool used for laundering clothes and bathing.

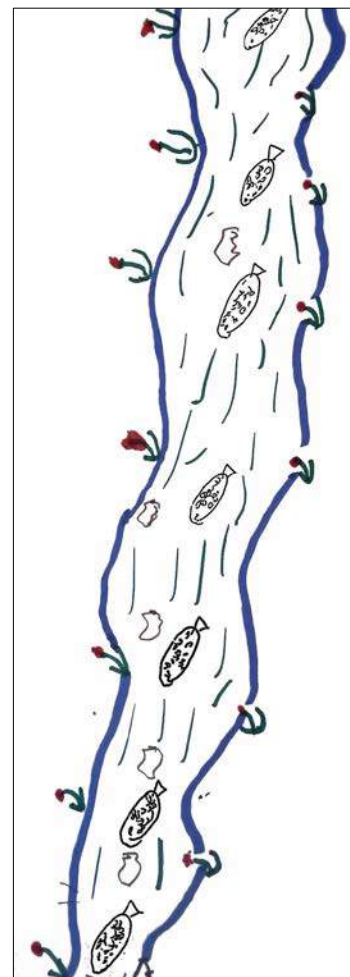
In the past there was no water supply services in the town, then people had to carry water from the river. “Before, women sent us to go for water to the creek”, said a male participant (PRA-Audio). The river was also used for laundering.

Figure 6.11. Before: people had to carry water from the river



Source: PRA-Poster1

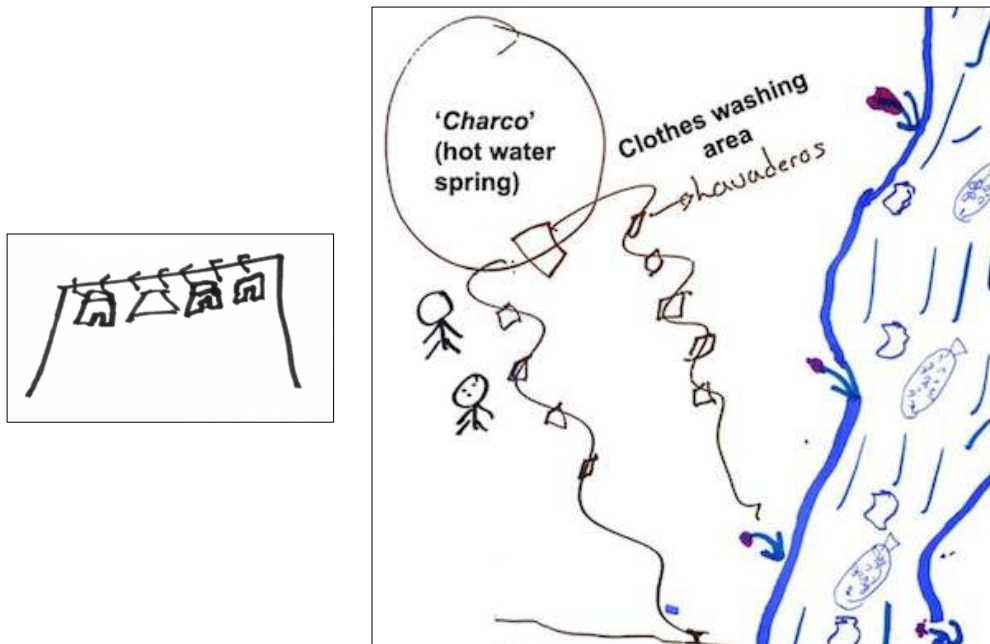
Figure 6.10. Before:
river full of fishes



Source: PRA-Poster1⁹

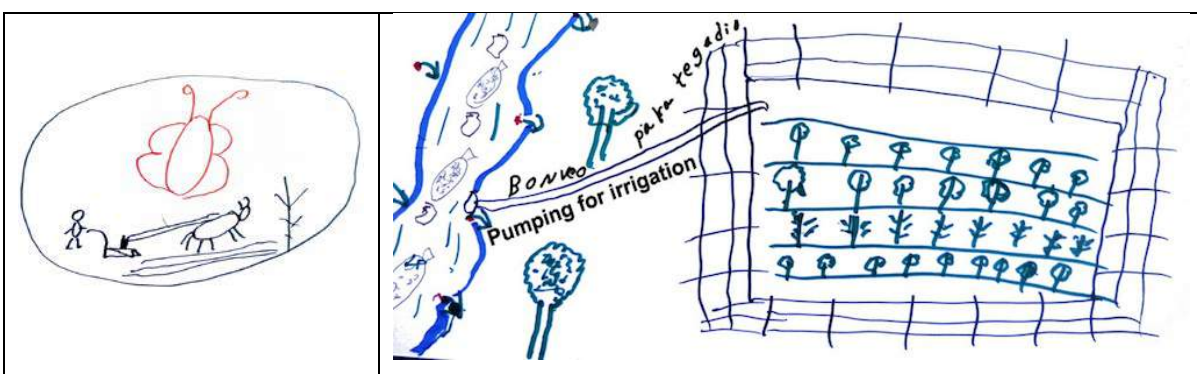
⁹ The image was edited to highlight the fish.

Figure 6.12. Before: people washed their clothes in the river



Regarding productive activities they mentioned an irrigation pumping system. They highlighted the use of the plough, instead of the tractors that are used now. They said they should have drawn the pack-donkeys they used before motor vehicles, but they did not have the drawing skills to do this (PRA-Audio).

Figure 6.13. Before: agriculture methods

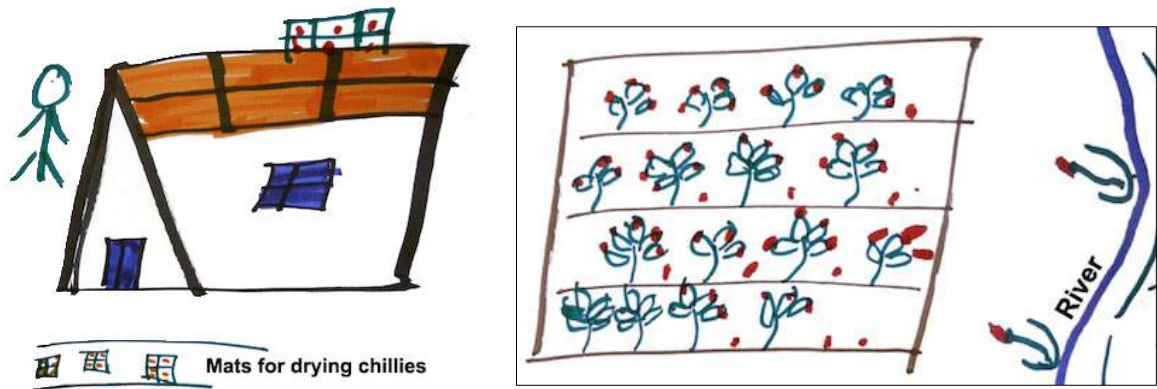


Source: PRA-Poster1

The main crop grown by the community is the *chile de árbol* (*capsicum annuum*), which is a hot chilli pepper, with a bright-red undulated skin and a medium size and long shape; this chilli is dried and becomes an aromatic ingredient for hot-sauces and

cooking, and is very common in Mexican cooking. The participants remarked that “before” there was a big production of chilli in vegetable gardens. The people dried them on *petates*, which are mats made of woven strips of palm leaves, outside their houses or on their roofs.

Figure 6.14. Before: growing and drying chillies



Source: PRA-Poster1

The riverside was a place of leisure. They called it *el paseo*, which means “the promenade”, surrounded by trees. People use to go there and make a campfire (*fogón*) to cook stews, or as a grill; they took their tables, pots and cutlery, and spent the day together.

Temacapulín is in the bottom of a canyon. The community of Temaca describes the village as being surrounded by four hills: the hill of the glory, the hill of the owl, the hill of the cross and the flat-topped hill. The hills have a high symbolic value for the community (as it can be appreciated in the *corridor*, explored above).

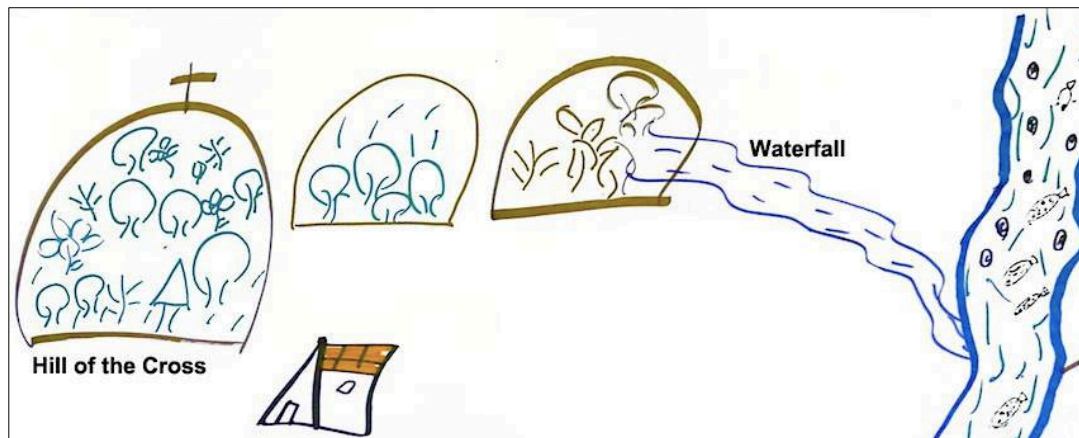
Figure 6.15. Before: the *paseo* (promenade)



Source: PRA-Poster1

In the poster, they represented some of the hills and the waterfall that flows into the Verde River.

Figure 6.16. Before: hills and the waterfall



Source: PRA-Poster1

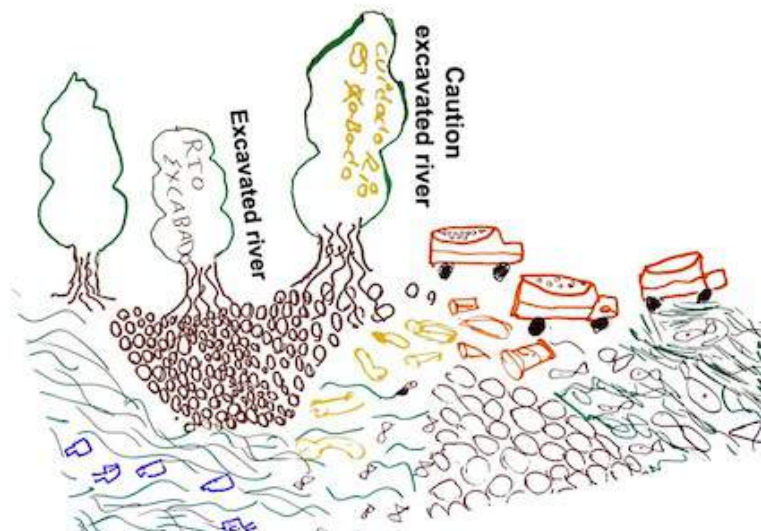
6.5.2. Life in Temaca after

The team that depicted the life of the community “after” focused on the river and its surroundings (Figure 6.9). Their presentation started by describing the promenade that they called *Morones* or *Saucitos*. The latter name has its origins in the population of Mexican native trees, called the *sauce llorón*, or *sabino* (*taxodium mucronatum*), that exists on the shores of the river.

The participants spoke of their concerns for the river. Their first concern was the dredging of the river. The problem started 15 or 16 years ago, when sand mining companies (*arenera*, sand dealers) started to work in the area. They took the sand and left piles of stones, which has segmented the river and left deep uneven holes in the riverbed (PRA-Audio). Participants asserted that these diggings have produced several fatal accidents because people were not aware of the holes and drowned while attempting to swim there. The roots of the willow trees have been weakened and produced the eventual collapse of the trees. The community suspects that companies have intentionally produced the decrease in the water level and the fall of the *sabinos* trees to ease the sand dredging. The authorities have not done anything to

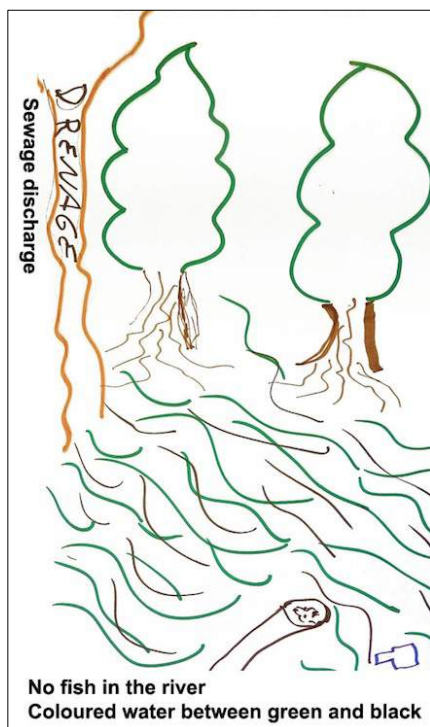
prevent accidents and it was the community who put up warning signs. The participants included the signs in their drawings and re-stated that they were intended to prevent more deaths by drowning (PRA-Audio).

Figure 6.17. After: the impact of sand mining



Source: PRA-Poster2

Figure 6.18. After: Sewage discharge

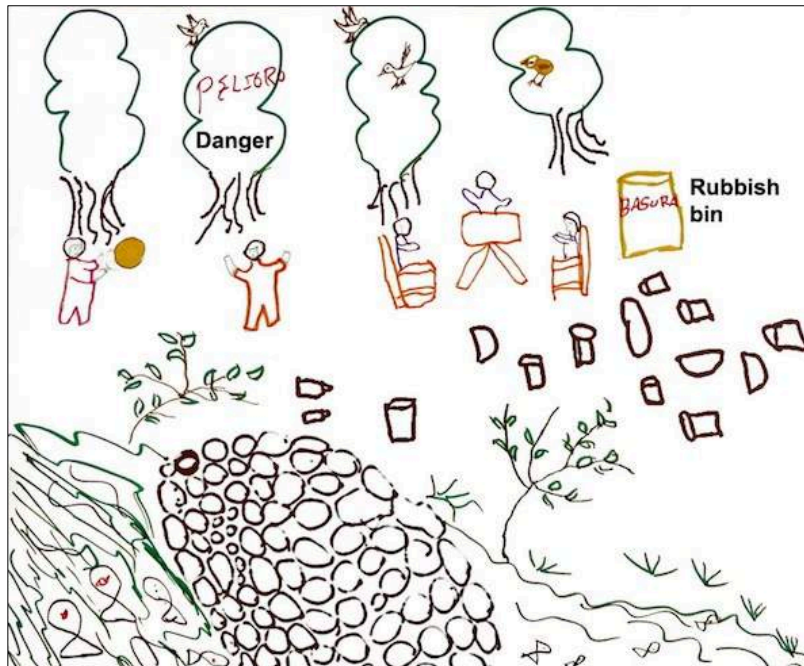


Source: PRA-Poster2

The second concern of the community is water pollution. They described that water now looks a dirty colour, between green and black. They explained that, before, Temaca had no piped water supply or sewage system. Now it has, but the modern sewage pipes discharge untreated water directly into the river. Those untreated discharges come not only from Temaca but also from other places up river, like Jalostotitlán, San Juan de los Lagos and others (PRA-Audio). This pollution has reduced the number of fish in the river.

The third concern of the community was the quantity of rubbish spread about the place, despite the existence of bins. They said “sometimes, the truth is, we [the community] don’t have a good conscience and we throw rubbish outside, instead of in the bins when we go and eat food there and there is rubbish everywhere” (PRA-Audio). That rubbish often ends up in the river.

Figure 6.19. After: rubbish and warning signs



Source: PRA-Poster2

The agricultural activities (the crops of chillies irrigated with the river’s water) occur again in the “after” poster made by the participants. This team also included the corn crops.

6.5.3. Connection with the environment

The connection of the community with the river is the most relevant element in the assessment of the situation made by the participants. Part of the activities of the PRA session was to write a letter to the river. The letters show the close connection of the community with the Verde River. Most of the participants shared enduring memories about personal or family moments at the river or spoke about the love they felt for

the river. Some participants described the natural beauty of the river and the environmental landscape. They mention the uses of the river: fishing for eating, as a leisure spot, irrigation for crops and commercial fishing. The participants wrote about their concerns, mainly for the river's pollution, the loss of vegetation and deforestation, and the sand mining excavations mentioned above. Only two participants mentioned the responsibility of local people for the river's deterioration; the others focused only on the effects of degradation.

Table 6.2. Topics addressed in the letters

Mentions	Participant								
	1	2	3	4	5	6	7	8	9
<i>Connectedness with the river</i>									
Memories about the river and their life / family	x		x	x	x	x	x		x
Love for the river	x	x	x						
<i>Uses of the river</i>									
Fishes as food	x			x	x	x	x		
Commercial fishing	x								
Leisure place	x	x		x		x		x	x
River for irrigation					x				
<i>Environmental issues</i>									
River as part of the environment		x							
Natural beauty		x		x				x	x
Concern for lost vegetation / trees / surrounding forests	x	x							
Concern for the excavations		x			x		x		x
Concern for water pollution / drainage discharges / rubbish	x	x	x	x	x	x			
Acknowledge human responsibility for the river's deterioration	x						x		
<i>About the dam project and conflict</i>									
Concern for the death/disappearance of the river due to the dam	x	x	x	x		x	x	x	
Acknowledgement of the dam promoter's responsibility			x				x		
Perception of being meaningless								x	

Mentions	Participant								
	1	2	3	4	5	6	7	8	9
for the dam promoters									
Resistance movement	x	x							

Source: Elaborated by the author

Regarding the dam, the participants address it through their concern of the “end” or death of the river. As in general, they believe that the dam will destroy the river. Two participants mentioned the agents who promoted the dam; one of them reflected the perception of being meaningless to the people who are responsible for the dam. Two other participants mentioned the resistance movement. Table 6.2 summarises the topics mentioned by the participants and table 6.3 reproduces some written quotes made by the participants.

Table 6.3. Selected quotes by participant

Participant	Quotes
	Dear river:
1	Don't give up Help me to fight so your water keeps on running
2	I ask you to fight together with the people of Temaca to stop this
3	I'm sorry they want to destroy you now with the dam I'll fight for you ... and be with you until the end
4	I'm a person who grew up with your fruits, healthy and tasty fishes, that's why I don't agree that they make the dam and the river is affected
5	Sadness overcomes me to see you so destroyed and not being able to do anything to defend yourself
6	We are defending our Verde River, for the sound of the waters in raining season that says sweet nothings to us May Temaca stay alive to enjoy the Verde River once more
7	If you could speak you'd be the first one to raise your hands to defend yourself and avoid the damming of your water Help us to have energy to fight to save you

8	There are people that want to destroy what is ours, because we are not important for them; that's why they want to build the Zapotillo dam to finish our Verde River
9	With sadness I write these lines to express my feelings

Source: Letters

Within this narrative of the community, the Zapotillo dam project threatens all that they have as a community, including the river and the environment in general. In the poster-making activity, besides the poster of “before” and “after”, a third team worked on a poster with the theme “what is the Zapotillo dam project?” The team did not depict the dam. Instead, they focused on what they believe would be lost for the town, the community, the river and the environment (Figure 6.20).

Figure 6.20. What is the Zapotillo dam project? The community’s interpretation

“It is a corrupt and selfish [project] that wants to finish with all our memories, customs and roots [that we have] because we live in a place where there are crops and people eat what they harvest and have a dignified and peaceful life; because they are small towns they want to finish with them and do not care about the rights of people, they just think of the benefit of very few and not the people they damage with diseases[and] pollution”

For me it's something very bad that damages my health

the Zapotillo project is the worst that has happened in my life; it has damaged me in the psychological, economic and family [aspects]

The Zapotillo dam has damage all who live here, we feel sad and depressed to hear thing more about what is wrong with the Zapotillo dam

es una Corruccion y egoismo que quiere acabar todo nuestros recuerdos Costumbres y raices por vivir en un lugar donde hay Cultivos que las personas Comen de lo que se cosecha y llevan una vida digna y Tranquila que por ser Pueblos chicos quieren acabar con ellos y no les Importa los derechos de las personas Solo Pienasan en el beneficio de unos Cuantos y no alos que perjudican con enfermedades Contaminacion

el proyecto de zapotillo seria la contaminacion mas grande que existe para el ser humano

it would finish with the life of animals and the sustenance for many families

the Zapotillo project would be the biggest pollution that exists for human beings

Source: PRA-Poster3

6.6. Concluding remarks

The narrative of the government regarding the Zapotillo dam focuses on the decision between the benefit of many (mainly the cities of León) compared to the displacement of a small and decreasing community at the bottom of a canyon. In the eyes of the government, Temaca is suitable as a development casualty because it is already “invisible” and thus expendable. In compensation for their sacrifice, “modern housing” is offered to the community in a new settlement located in the same area, on more elevated land, where they can be close to the projected dam’s reservoir but safe from flooding.

The narrative of the community is not only about the Zapotillo dam project. It is about a long history of marginalisation. The people from Temaca perceive themselves as a community with centuries of history and cultural heritage that has survived on its own, without the help of the state, or even against it. It is a community proud of its capacity of resistance and maintaining its peaceful life. Now, the state that has abandoned them and excluded them from their policies and benefits is asking them to sacrifice. Besides being a question of justice, the community believes that there is irrationality: why end a community that is productive (self-sustained) and does not demand anything of government?

In the narrative of the community, the actors fear losing everything because of the dam project. In this narrative there is no sign of the change of governance in Mexico, i.e. the transition from authoritarianism to a more democratic regime and the rise of a more active civil society. The permanent marginalisation has created an isolated community that seems to be immune to politics and policy. Interestingly the social movement that defends them seemed distant as well. To some extent the national and regional scale of politics is outside and far removed from their everyday lives.

The community’s narrative about what is happening around the Zapotillo dam is significantly different from the approach adopted by leaders of the movement and its supporters in civil society. I concluded that the peculiarities of the narrative are:

1. It is not centred on the dam alone.
2. The time frame is wider.
3. It focuses on the local scale. The events outside the community are barely taken into account in the narrative.
4. It has a clear environmental discourse based on their local knowledge.

For the people from Temaca it is not only about the community being environmental victims of the dam. It is about the slow ongoing environmental degradation that their generation has witnessed. In the community's mind, they previously lived in harmony with an unpolluted river. Hydraulic infrastructure developed and the community (and other communities in the area) had piped water in their homes. However, the main consequence of the modernisation of water access has been the pollution of the river due to the discharges from the sewage (of their own and remote communities).

In terms of citizenship, I believe that the people from Temaca were in the past acting as environmental citizens. Their environmental rights and obligations were defined at a community, rather than national, level. They were environmental citizens of their own isolated community. Hydraulic modernisation and the river's exploitation by external actors (sand miners) modified the community's relationship with the river and their identity as environmental citizens. It affected their environmental rights and diffused their responsibilities.

The long conflict around the Zapotillo dam has transformed the people from Temaca into environmental victims. Currently, they live under continuous stress. They are overwhelmed by the threats of the government and possibly by the resistance movement's activities that have been added to their lives, the visits of their supporters and the researchers that have adopted the community as a case of study. As they lose control of the river, their duties and responsibilities change. If they move to a new location any responsibility for the river may be lost forever. The type of

environmental citizenship (local and embedded or more distanced and dependent) they practice will, to some extent, be shaped by the outcomes of the dam case.

Documents

PRA-Audio	Participatory rural appraisal (PRA) workshop [audio recording]. Temacapulín, Jalisco, Mexico, 23 March 2013. Recorder, transcriber and translator: Fabiola Figueroa Neri.
PRA-Poster1	<i>Life in Temaca before</i> . Participatory rural appraisal (PRA) workshop [poster]. Temacapulín, Jalisco, Mexico, 23 March 2013.
PRA-Poster2	<i>Life in Temaca after</i> . Participatory rural appraisal (PRA) workshop [poster]. Temacapulín, Jalisco, Mexico, 23 March 2013.
PRA-Poster3	<i>What is the Zapotillo dam project?</i> Participatory rural appraisal (PRA) workshop [poster]. Temacapulín, Jalisco, Mexico, 23 March 2013.
Anthem	Bombon (2008). <i>Cuatro cerros</i> [song]. Music: Chuy González. Retrived from: http://www.youtube.com/watch?v=f8Ur3kIywXE ; v.i. 14 May 2014. Translator: Fabiola Figueroa Neri
Letters	Letters to the Verde river. Temacapulín, Jalisco. 23 March 2013 Translator: Fabiola Figueroa Neri

Chapter 7. Environmental citizens

Environmental conflicts in Mexico have led to new expressions of environmental citizenship. The resistance movement of the people of Temacapulín has produced new environmental citizens. They can be considered “environmental citizens” not only because they are embedded in an environmental conflict. They are new environmental citizens because there has been a transformation in their lives and ideologies. They have adopted environmental discourses in which they are identifying as environmental citizens. The purpose of this chapter is to explore environmental citizenship at the level of individuals, by analysing profiles of new environmental citizens emerging within the battle for Temaca.

A group of eight citizens was selected. They have in common a commitment for defending Temaca. Four of them are “absent offspring” that have adopted leadership roles in the movement. The other four are more locally based supporters of the movement. In the narratives and stories of these citizens the national issues and transformations discussed in other chapters can be observed. In particular it is possible to see the authoritarian tendencies and antagonist relationships between the state and citizens (as in the old regime of “imperial presidency”); the increased adoption of environmental discourses as a consequence of the green transformations of the country; and the interrelationship and connections with different social movements and phenomena within a complex social context.

Table 7.1 contains the list of the members and supporters of the resistance movement who were interviewed for their stories¹. For each supporter a profile was developed

¹ All participants authorise the use of their names and the information contained in Table 7.1. Some participants requested to be fully identified as they believe make them more secure against human rights violations. Authoritarian practices in Latin America, which include the disappearance and killing of activists and journalists, can be more merciless with those are not “visible” and can be forgotten by the public opinion.

from this interview and other interviews and recordings that have been made about them. In each of the profiles below I include the list of sources used to generate the profile.

Table 7.1. Selected new environmental citizens

Name SURNAME	Usual residency	Occupation	Role in the movement
Gabriel ESPINOZA	Guadalajara City	Catholic priest	Speaker of the CLST Moral leader of the movement
María Félix RODRIGUEZ	Temacapulín	Housewife	Member of the CLST Link with Guadalajara (members and supporters) Activism
Emma JUÁREZ	Guadalajara	BA Internat. Business / No formal employment	Young leader in Guadalajara Link with supporters Lobby activities Activism
Martín RODRÍGUEZ	Los Angeles US	Retired in US	Author of his memories Activism in Mexico & US
Claudia GODOY Guadalupe ESPINOZA	Guadalajara City	Lawyers	Counsels (legal representatives) of the movement Lobby activities Activism
Mireya ACOSTA Liborio SALDAÑA	Guadalajara City	Engineers and academics	Technical advisors Supporters in lobby activities Activism

Source: Elaborated by the author

The first four individuals, which represent the group of “absent offspring”, are cases of “extraterritorial citizenship” because they claim their environmental rights in the community they migrated from. To use Dobson’s term, this could be considered a case of cosmopolitan environmental citizenship (see Chapter 1), because their identities as citizens are not circumscribed by a political unit (e.g. the nation-state).

Nevertheless, the emphasis of a cosmopolitan citizenship is often in the idea of “global citizens”, concerned by global problems. This is an example of extra-territorial citizenship, related to migration and transnationalism.

FitzGerald suggests that a “community” should be understood in terms of:

an imagined group of members who share a collective identity ... Communities are often based on attachments to a geographic place, but those communities can include members who do not inhabit the place. Community boundaries are ambiguous and subject to negotiation by its members (FitzGerald, 2000, p. 15).

He considers that extraterritorial citizenship can be both “in a territorially bounded political community without residence in the community” and “in territorially unbounded imagined community with a common attachment to a place of origin” (e.g. Jews, Palestinians and Armenians) (FitzGerald, 2000, p. 19). Regarding rights and responsibilities, extraterritorial citizenship has a “moral dimension” that is not necessarily congruent with legal status.

Extraterritorial citizenship is an object of study in migration and diaspora research. Escobar (2007) writes that the transnational approach of citizenship looks into the “ties” that migrants keep with their countries of origin and the political, economical, cultural and social consequences for both the origin and recipient countries. He opposes this to the “traditional assimilation paradigm” that supposes that migrants assimilate to their new country and the links with their origin are seen as a threat to the recipient country’s stability (Escobar, 2007).

Kaya asserts that transnational citizenship should be conceived “neither as an attempt to transcend the nationalist trajectory in forming cosmopolitan citizenship regimes, nor as a variety of nationalism projected across national borders ... transnationalism should be perceived as an analytical perspective, accounting for both trans-border nationalism and post-national conceptions of political community, such as cosmopolitanism or multi-culturalism” (Kaya, 2012, p. 156).

The immigration literature frames this phenomenon through the concept of “transnational fields”, which Portes et al. define as the network created by immigrants and fellow country people “who engage in a pattern of repeated back-and-forth movements across national borders in search of economic advantage and political voice” (Portes, Haller, & Guarnizo, 2001, p. 3). According to these authors, three factors have changed transnational fields:

First, revolutionary innovations in transportation technology and electronic communications that facilitate easy, cheap, and fast contacts across long distances ... Second, the intense level of contact made possible by these technologies and the seemingly growing number of immigrants and their home country counterparts involved in them ... Third, the increasing involvement of sending country governments seeking to promote and guide the transnational initiatives and investments of their respective diasporas (Portes et al., 2001, p. 4).

It is important to consider that although “extraterritorial citizenship” is mainly understood in relation to a transnational scale, in the case of the “absent offspring” of Temaca we speak not only of transnational migrants (going to the US) but also of internal migration to large cities, such as Guadalajara, León and Monterrey. In the following I will focus on the social-environmental components of extraterritorial citizenship in the case of Temaca. The strong belonging and commitment to Temaca evidenced by its absent offspring is an important characteristic of the resistance movement. This will be clearly appreciated in the stories of Father Gabriel, Emma and Martín.

7.1. Father Gabriel. With God and without the church

... we were made to feel that we were enemies of progress, that we were not representing Temaca's people. If the dam was not built, we would be responsible for keeping people in poverty. The governor asked me not to use my priest's moral authority or the pulpit for scheming² with the people, as if it was me who did not want the dam ...

So much I have been devoted, that my participation has annoyed the civil and religious authorities; however, in front of God I have discovered that the struggle of Temacapulín, Acasico and Palmarejo is my struggle; and it is clear to my conscience that I cannot abandon my moral commitment with the town of my parents, my grandparents, my people ...

(Espinoza, in Casillas & Espinoza, 2010)

Priests in small Mexican towns are very special people in community life. They are the moral authorities and in some cases the de-facto civil authorities, particularly when there are few or no government local offices.

Data from 2010 reports that 82.72% of the population in Mexico are Catholic and 7.47% are Protestants, Pentecostals, Christians or Evangelists. The State of Jalisco is more Catholic than the average, 91.99% of the population belong of this religion (INEGI, 2010). Temacapulín is in the municipality of Cañadas de Obregón, where 97.85% are Catholics³.

The relationship between the Catholic Church and Mexican state has been historically contested. The Catholic Church was a powerful, predominant actor in the colonial period that lasted almost three centuries (1521-1810) and during Mexico's first decades as an independent state. When the republican government was established (1850s-1860s), an important reform was conducted to secularise the state. The

² *Grilla*, in Mexican Spanish, which means politics and scheming.

³ <http://www.inegi.org.mx>, v.i. 30 Nov 2012

Catholic Church was separated from political and civil structures. A civil register of births, marriages and deaths was created, for instance, and civil marriage (as opposed to religious marriage) became the only one recognised by the state. The 1917 constitution, enacted after the revolution, endorsed and deepened the state's secularisation. It banned any interference of religious institutions or church ministers (priests) in public matters. The constitution established that only Mexican citizens could practise as religious ministers. The priests and other church ministers cannot criticise Mexican laws or government, they are not entitled to vote or participate in political associations, political parties cannot refer to religion in their names, among other restrictions (C-1917, art. 130) and public education must be secular (C-1917, art. 3).

At the end of the 1920s, a rebellion of Catholics in Western Mexico (Temacapulín is in that region) opposed the regulations established in the 1917 constitution. The government took three years to end it, with thousands of casualties. This episode is known as the Cristero War. It was not until 1992, in the period of transition to neoliberalism, that the relationship between the Church and the State relaxed in legal terms. The constitution was reformed to allow priests and religious ministers to vote and religious institutions to have a legal identity and manage freely their properties.⁴

Regardless of the secular tradition of the Mexican state, the Catholic Church is a powerful institution that plays a very important role in the country. It has been heavily involved both in Mexico's public life and in private education. An example is the Sinarquist movement of the 1930s, which is the antecedent to the foundation of the party PAN, one of the three main political parties (Valdez-Escontrilla, 2009). In general, the Catholic Church holds a right-wing ideology. Political actors from the extreme right and the many of the wealthiest families are known to be ultra-conservative and ultra-catholic (e.g. the *Opus Dei* congregation).

It is important to say that not every one in the Catholic Church shares a right-conservative ideology. In the 1960s-1970s, Liberation Theology was welcomed and

⁴ *Diario Oficial de la Federación*, 28 January 1992, pp. 3-5

embraced in Mexico. It focused on the poor and shares many principles with left-wing ideologies (Valdez-Escontrilla, 2009). In many Latin American social guerrillas or movements, Liberation Theology has been involved. The Zapatista movement of the 1990s in Mexico is an example (Loaeza, 1994).

Temaca is in Los Altos, Jalisco, a relatively wealthy region that is characterised by its conservatism and Catholicism. For this reason, the involvement of a priest in the conflict is very relevant. Father Gabriel says he got involved in 2007, when the community first heard the news about the dam (GEI-Interview). Ever since, he has been one of the main leaders of the resistance. He declares himself a member of the Committee Let's Save Temaca and as spokesperson for the movement.

In 2009, Father Gabriel began working as a priest in the Parish of La Magdalena, on the northern outskirts of Guadalajara city. The context of this move was a previous media statement made by the Director of the State's Commission on Water accusing Father Gabriel of leading the movement against the dam in Temaca. Even though it has not been acknowledged by him or his superiors, there are rumours that his leadership in the movement was not approved by the Church (Covarrubias, 2009, 2010b).

Juan Sandoval Iñiguez, cardinal of the Archdiocese of Guadalajara, a key figure in Jalisco's public life, declared himself to be against the dam in 2008. Father Gabriel sought his support then. In 2011 the Cardinal said that the ecclesiastical hierarchy was not going to make any statement for or against. He said that Father Gabriel was acting like:

a grasshopper out of the pot. It is government's works [the dam], the water. So, why is he trying to convince the Church if it [the dam] should be built or not? As if we were technicians. We need water ... That priest is getting himself into hot water⁵, in affairs that are not incumbent to him. He is from there [Temaca] and is playing the redeemer ... he is in a weak position because Temaca is not in the Diocese of Guadalajara, that is why I cannot say

⁵ The original text in Spanish says: "se anda metiendo en camisa de once varas".

anything, nor should I. Temaca belongs to the Dioceses of San Juan de los Lagos and he is in [working at] Guadalajara (Partida, 2011, my own translation).⁶

Figure 7.1. Father Gabriel



Source: Photograph by the author. 14 March 2013, presentation of Martín's book

Father Gabriel has a different perspective about the justification of his involvement. First of all, he says it is because there is a “blood involvement”, as he, his parents and his grandparents were born in Temaca (GEI-Interview). His other reasoning is based on the Gospel, which states that religion must defend the rights of people, particularly of the poorest and more vulnerable, to work for a fairer world (GEI-Interview). He highlights the importance of defending the rights of minorities:

The Church has a doctrine, which is the social doctrine of applying the gospel in temporal realities; that is what the baptised must do. Since I'm baptised I have the moral obligation and

⁶ The cardinal's discourse in this phrase can be framed in what academics have described as a citizen perspective based on a territorial circumscription. As discussed in Chapter 1, the scale of environmental citizenship should be determined by the environmental problems, which usually is broader than political or administrative borders.

besides as a Mexican I have a civilian obligation to work in this (in Covarrubias, 2010, my own translation)

Father Gabriel met Samuel Ruiz before he passed away. Samuel Ruiz was serving as bishop in the State of Chiapas in 1994, during the Zapatista Army of National Liberation's uprising. He played a key role as mediator between the Zapatista and the government. Samuel Ruiz embraced Liberation Theology. Father Gabriel referred their encounter:

I learned from him to be more sensitive [and] from the gospel ... basically he spoke about three things: first ... our commitment is with God's Word; second, our commitment is with our brothers, especially with those in most need and the poorest, with the marginalised, with the ones in danger; and third, *with nature* (in Covarrubias, 2012, my own translation and italics).

Part of the learning that Father Gabriel has undergone through the conflict is about water governance. Although he does not use the term "governance", he speaks of the need for integral water management, in a collaborative way and with inclusive policies. He speaks of making a team with the authorities (the dam promoters):

It seems that dialog dialogue is a difficult thing for us [society] to do. Although many times in [political] campaigns we heard ... about a "government that is close to you", an inclusive government that seeks to alleviate poverty, hunger. But suddenly, in reality, we find the same challenge: we don't feel we are being listened to. Although the struggle for Temaca, Acasico and Palmarejo has always aimed at having a dialog ... being proactive, to give alternatives, it seems that the authorities go one way and the people go another. It is like each one is supporting a different cause, but what we have to build is one unified society.

...

Sirs from the government, listen, we believe you are intelligent people, we believe you have common sense ... And also we, the people, the citizens are intelligent people. It is like ... if you have a coin and I have a coin and I give you my coin and you give me yours, how many coins will you have? You will have one. And me? I will have one. Instead, if I have an idea and you have another idea and we share, how many ideas will you have? Two. And how many ideas will I have? I'll have two ideas and everyone will be enriched and everyone will progress (GEI-Audio).

Father Gabriel's discourse reveals a strong conviction for democracy. When he was asked if he believes that the authoritarianism of the past still exists today, he answered: "democracy is told to exist, but seriously, there is not a real democracy ... We will keep on fighting for true freedom, true democracy, true transparency and true justice ... sometimes we live but not in the conditions God wants, not in the conditions we deserve" (GEI-Interview).

Human rights are a key issue for him. He is critical that Mexico has invested public resources in human rights institutions that in reality have left people and minorities behind. He questions the idea of the human rights of the majorities. In the case of water, this principle implies that if water is a human right then it is correct to provide water to the majority and sacrifice the rights of a few. He jokes, if minorities are to be left behind, businessmen and politicians are a minority, not small towns (GEI-Audio).

Behind the defence of Temacapulín, there is also a territorial planning argument, in the Father's view. He does not agree with the model of "monster" mega-cities. Human communities should be characterised by their safety, culture, traditions and trust. "God does not like us to live overcrowded ... I believe we should learn to live in a civilised way and civilisation is more feasible in small or medium communities rather than ... [mega] cities" (Covarrubias, 2010b). He believes that small populations should be boosted as there is more employment, more schools and this would help to prevent migration (Covarrubias, 2010b).

The environmental discourse of Father Gabriel is framed in sustainability. He considers that, starting in 2010, the movement can be considered as a "water resolution, which is not a blind opposition to progress; it is rather a reasoned work that aims at integrating citizenship and authorities for pursuing sustainable [alternatives]" (RMR-2013).

Father Gabriel believes that their movement is legitimate and just: "it is a peaceful struggle, a struggle that is right, it is not rebellion without a cause" (Covarrubias, 2010b). "God is also an NGO", Father Gabriel asserts (Covarrubias, 2012). His personal moral commitment is to help in the defence of his hometown against

injustice, “to be the voice of those who have no voice” (Covarrubias, 2010b). Beyond the Temaca problem itself, he believes that “the struggle of Temaca can enlighten other struggles” (Covarrubias, 2010b).

My final reflection after meeting with and researching about Father Gabriel is that the involvement of religious leaders in environmental movements has hardly been seen in Mexico. Priests’ opinions usually have a high impact on public opinion and peoples’ beliefs, not only in religious regards. Thus, the emergence of religious leaders as environmental activists and citizens may contribute to the production of even more environmental citizens.

Documents

C-1917	<i>Constitución Política de los Estados Unidos Mexicanos</i> , 1917 [Mexican Constitution, 1917]
Espinoza, in Casillas & Espinoza, 2010	ESPINOZA Iñiguez, Gabriel, “Temacapulín y su lucha contra el Zapotillo”, in Casillas & Espinoza, 2010, pp. 146-150. Translator: Fabiola Figueroa Neri
GEI-Audio	ESPINOZA Iñiguez, Gabriel, in the press conference of the Permanent People’s Tribunal and IMDEC (Mexican Institute for Community Development) [audio recording]. Guadalajara, Mexico, 15 March 2013. Recorder, transcriber and translator: Fabiola Figueroa Neri.
GEI-Interview	ESPINOZA Iñiguez, Gabriel. Interview conducted in Guadalajara, Mexico, 28 November 2013. Interviewer and translator: Fabiola Figueroa Neri
RMR-2013	<i>Un justo reconocimiento</i> [Internet radio], interviewed by Mónica Montalvo. Radio Mundo Real, 4 February 2013. Available in http://www.radiomundoreal.fm/Un-justo-reconocimiento?lang=es Transcriber and translator: Fabiola Figueroa Neri

7.2. María Félix. From housewife to activist

River: You're part of my life. There are so many things between you and me because with you I've enjoyed the best memories, my best moments ... My husband is a fisherman and we get fish from there to eat and sell. My children learnt to swim in you and there is no other place like you to reflect ... you're the witness of my family's life. Now that I'm writing I realise how important you are for me. River, help me to fight so your water keeps on running in the same way ... Don't allow the vegetation to die, you're the sustenance of many families of animals and trees. I love you. Don't give up.

María Félix Rodríguez (MFR-LR)

Mexico is well known in the world for its *macho* culture; it is a society where men play a hegemonic role in public and private realms. As a Mexican woman, I agree with the journalist De Mente who describes the Mexican macho phenomenon as the “cult of masculinity”: a “Mexican male who does not demonstrate a certain degree of masculinity is automatically assumed to be a wimp, impotent, a homosexual or bewitched” (De-Mente, 1996, p. 173)

The macho phenomenon does not mean that women are directly discriminated against or seen as second class humans. Gender equality is institutionally established and the “cult of masculinity” is paired with *public* respect for women, who are to be treated with excessive gestures of gentleness and overprotection. This behavioural façade hides the inequality and sometimes abuse that takes place in private.

It is a very complex phenomenon with double standards according to gender and where women tend not to consider themselves as equal to men. Particularly in small, traditional and countryside communities, women are expected to behave in a discrete and modest way. As described by De Mente:

In its idealized Mexican context, womanhood is equated with love, goodness, understanding, sincerity, caring and obedience to men and the church ... Over the centuries, the only solace the women of Mexico had from the sexism and irresponsibility of machismo-dominated men

was the Catholic Church—not as a refuge, but as a place where they could hope to win religious merit by passively accepting the punishments inflicted upon them (De-Mente, 1996).

Apart from the religious aspects, the Church and its activities are socialising spaces for women in many small Mexican communities. The men's social space is very often the pub (*cantina*). Within this context, social movements with women as leaders are a relatively new phenomenon in Mexico. Temacapulín, as mentioned above, is a traditional and very religious community, yet women are playing a remarkable role in leadership. I believe that this has been one of the many possible factors that have prevented violence. The movement for Temaca has been a peaceful resistance, different from other anti-dam movements in Mexico, such as the case of La Parota in Guerrero where there have been direct and violent confrontations.

Mexico is a country of inequalities. Gender issues are not the only disadvantages faced by María Félix and the other female leaders of the anti-dam movement. The concentration of development and resources in the cities has marginalised the people of the countryside in cultural terms. This has created a certain complex of superiority in the city people. In Mexico there is also remarkable discriminatory behaviour based on social classes. There are few mechanisms of social mobility. Education is one of them; those who obtain a university degree ascend to a higher category in the collectively constructed social scale. Politics is also a mechanism of social ascent; people who succeed in politics or high levels of bureaucracy can be part of the “political class” that enjoys the disproportionate benefits of power.

It is necessary to have this context in mind to understand the encounter of María Félix and the other women of the Let's Save Temaca Committee with the dam promoters, a team of highly educated male engineers with high positions in the federal or state government and politically powerful both in Mexico city and Guadalajara.⁷ She refers

⁷ For instance, the general director of the basin organism of Lerma – Santiago – Pacific, in charge of the Zapotillo dam project, is a federal public servant with a monthly salary of 83,842.87 MXN (http://pot.gob.mx/pot/remuneracionMensual/consultarPuesto.do?method=showEdit&idPuesto=CFKA001&_idDependencia=16101, v.i. 24 March 2014), equivalent to 7,000 AUD (exchange rate in 21 March 2014) meanwhile the regional monthly minimum wage for Cañadas de Obregón is 1,938.61

to the dialogue roundtables they have with the dam promoters: “Being put face to face with them was ... one of the worst things ... to see their cynicism when they speak to you and that they feel stronger than you, even when they are not right” (MFR-Audio-2). María Félix felt she was being treated as if she was an ignorant person.

Figure 7.2. María Félix Rodríguez



Source: Photograph by the author. 7 March 2013, Guadalajara.



Source: provided by María Félix, from her Facebook page

The project of the Zapotillo dam has turned María Félix’s world upside down. Before everything started she was

the happiest person in Temaca. Because ... well, I got married, thank God I had no problems. I had my children. I felt like I was one saying “there is no more happiness than Temaca”, because we had all the necessary things. We have what I’ve just said, lots of water and [unintelligible, crying voice] ... [I was] a person with resignation, but very happy. But now we can’t say that any longer (MFR-Audio-1).

MXN (minimum wage in 2014 on a basis of 30.4 days per month) equivalent to 162 AUD (exchange rate in 21 March 2014).

María Félix asserts that in 2005 they heard about the project, but it was not until 2008 when the “strongest” events occurred that the life of Temaca changed forever. It was a year full of activities that included demonstrations in the city of Guadalajara (in January), lobbying and meetings with state and federal authorities, and networking with environmental associations and other anti-dam movements (Delgado-Rodríguez, 2012). María Félix perceives herself and her community as made of simple and humble people. She would never have dared to speak in public in the past; when journalists went to Temaca she avoided them, but:

one day, unfortunately ... I started to speak much louder. My daughter phoned me, she was crying and told me “mom, please, I beg you, on my knees, that you leave this”. It hurt me so much that; my daughter crying so loud asking me to leave the struggle ... that I said to myself “this is enough”. And that was when I really started fighting and standing in the front line. Thereafter when journalists arrived I said “Me!! I want to speak first” (MFR-Audio-1).

Once she lost her fear and had gained her public voice, María Félix participated in as many demonstrations, meetings and other activities as she could. She is a very active member of the Let’s Save Temaca Committee. She had spoken at academic events, attended press conferences, and received invitations from the press. She was trained to manage audio-visual equipment so she can record and document what is happening in the town (Delgado-Rodríguez, 2012).

She has also improved her computer skills and learned to use the Internet. When I visited Temaca I found her in the community-run Internet facility. Small towns like Temaca usually lack the facilities to access the Internet. In fact, Temaca’s telecommunications are very limited. There is no mobile signal; inhabitants depend on landline phone services. It was not until 2010 that Temaca’s neighbours together with the Committee for Information Democratization (international NGO) got a satellite antenna installed and assured access to the Internet (Martinez, 2014). Although it is an expensive alternative it is the only available method. Internet providers do not find it profitable to invest in the communication’s infrastructure (Martinez, 2014). María Felix considers that this connection has been very important

for the movement, and the support of another NGO (IMDEC, Mexican Institute for Community Development) has been essential to obtain and fund it.

Besides the threatened flooding of her beloved town, the objection of María Félix is framed in terms of the river. Her family lives from fishing, she believes that the dam would put an end to their way of living, because the dam would destroy life in the river itself: “For us if the Zapotillo project goes on it would be the biggest pollution that can exist among human beings. Why? Because it would be no more than stagnant water, how much stuff would end up there? ... it would end animal life [like] fishes [and] ducks” (MFR-Audio-2). In a certain way she is right, the eco-hydrological alteration of Mexico’s rivers by dams is documented in Mexico (e.g. Pérez, Cuevas, Cotler, González, & Tharme, 2010). Many dams in Mexico lack maintenance and water stagnation produces methane and other greenhouse gases.

The dam’s impacts on the local economy include more than the fishery. María Félix observes that green areas would be lost, the *nopal* (edible cactus, an important part of the Mexican diet) could not be harvested and they would not be able to grow other crops like sweet potatoes (MFR-Audio-2). The proposed new settlement (Talicoyunque or New Temaca) is located in an isolated narrow area, approximately 120 m more elevated than the maximum level that the dam reservoir could reach. María Félix and the other inhabitants of Temacapulín do not believe that the dam can benefit them in economic terms. On the contrary, they believe that they will be left with no resources at all.

From the perspective of María Félix, it is incomprehensible that the government is promoting a project that would end Temaca’s life:

Temaca ... is a town ... let’s say a small town, with few people. But it is a living town that doesn’t need the government and the government’s promises ... because in there ... there’s everything in Temaca. We don’t need anything [else] because, thank God, we have land to cultivate, land we live from and thank God we have what we need and we don’t lack for anything ... in Temaca there are no beggars or people that have nothing to eat for the next day. Thank God the land has given it [all] to us. Instead, in a city there are people like that [beggars].

Thus, this is what I don't understand. Why does the government stop that [productive towns like Temaca]? The poor and the peasant have to struggle for everything, not only for themselves, but also for those in the city. Because sowing in a city is not easy. Therefore, why end the fields and fertile lands that feed us all (MFR-Audio-1)

These words of María Félix reveal her perception about the government as a complete stranger to her community. When she and other Temaca inhabitants say “we don't need the government” it is not said in an anarchist sense. They don't see the government in their lives; they feel marginalised from its policies and excluded from its public benefits. They have to go to the city or major population centres to receive many services.

The centralisation of public services is an issue that remains unsolved in Mexico. States and municipalities depend on the federal budget (around 89% of their income comes from federal contributions). According to data from 2011, the whole municipality of Cañadas de Obregón had a public budget of around 0.127% of Jalisco State's public budget, it had none of the “infrastructure and commercial activities” services, it received 0.097% of the anti-poverty program funds assigned to Jalisco, it had no a commercial bank branch and it had just one hotel (INEGI, Simbad, v.i. 24 March 2014). Meanwhile, the region of Los Altos is one of the main producers of milk and pork products in Mexico. The particular area that includes Temacapulín is a big producer of chilli.

In the eyes of María Félix, therefore, Temaca contributes to society by its agricultural production, has received very little from the government and is now threatened with destruction as part of a government project to provide water to other places. María Félix thinks that,

the project is corrupt and it is selfish; it wants to end all our memories, customs and roots ... a place where there are crops, where people eat what is harvested, where people live with dignity and tranquillity. Because of being small towns, they want to finish them and they don't mind the rights of people. They just think of the benefits to a very few and not of those that are affected ... (MFR-Audio-2)

She denies that the government has conducted itself in a trustworthy way or has communicated to them the social benefits of the dam. The movement forced the government to establish a dialogue. On the 28th of March 2011, around 200 people occupied the dam construction site to demand its cancellation. María Félix was in the front line. She felt no fear then. It was only later she realised it had been a risky action. In order to regain control of the construction site, the government negotiated with the protesters and agreed to organise roundtables to discuss the project. They were called “Dialogue Roundtables” and the sessions were conducted from April to June 2011 (Delgado-Rodríguez, 2012).

María Félix thought that in those roundtables they would be listened to, but she was wrong: “from the moment they arrived, they imposed everything they believed and was convenient for them ... First, they never allowed us to speak. Second, they never said anything else; they simply showed us some slides [on Power Point] about where the water was going and what the water was for. They never showed us an aqueduct for the [water] deviations that [supposedly] would benefit Los Altos” (HT-2012). She thinks the roundtables were a mistake because they lost confidence in being listened to and in their rights being respected. It was a big deception for the community (HT-2012).

After the failure of the roundtables, the movement continued with demonstrations in different places (including the facilities of CONAGUA in Mexico City). The dam promoters started to push some residents to sell their properties through edicts informing them of forthcoming expropriations while hiding information about who had actually sold their properties to the government. María Félix considers that the intention of the government with these actions was to scare them, to make them feel that an increasing number of their neighbours were giving up and selling their properties. However, María Félix believed that no matter what the government said, local people were united. They are not alone and “that is something that makes us, the people that are in the struggle, feel ... proud” (HT-2012). María Félix says that the community union is:

something that makes you ... like growing; growing in the struggle and having more enthusiasm ... not everything is lost and above all it is about enforcing your rights ... Being aware that it is your right and nobody will arrive to your town to impose on you what he wants ... or what you should do ... The fact that they are small units [communities] doesn't mean that someone can come to govern you or to tell you what to do (HT-2012).

This feeling balances some of the despair and uncertainty regarding the future of her community. She is confident that they are doing the right thing, that their struggle is a fair struggle, a struggle for the land in a free country (MFR-Audio-1).

Documents

HT-2012	Interview to María Félix Rodríguez, in <i>Hijos de la Tierra</i> [Internet radio show], No. 47. Radio presenter: unknown. 2012. Available in: http://hijosmadretierra.blogspot.com.au/2012/01/programa-47-hijos-de-la-tierra.html , v.i. 17 March 2013. Transcriber and translator: Fabiola Figueroa Neri.
MFR-Audio-1	RODRÍGUEZ, María Félix, in roundtable "The Voice of the Actors", Congress of the Asociación Mexicana de Estudios Rurales [Mexican Association of Rural Studies] [audio recording]. Guadalajara, México, 7 March 2013. Recorder, transcriber and translator: Fabiola Figueroa Neri.
MFR-Audio-2	RODRÍGUEZ, María Félix, in participatory rural appraisal (PRA) workshop [audio recording]. Temacapulín, Jalisco, Mexico, 23 March 2013. Recorder, transcriber and translator: Fabiola Figueroa Neri.
MFR-LR	RODRÍGUEZ, María Félix, Letter to the Verde river. Temacapulín, Jalisco. 23 March 2013

7.3. Emma, the saviour of nature

The life of Emma and her family is marked by the phenomenon of migration. As analysed in Chapter 6, small towns like Temaca have been left behind by the model of development in Mexico, by the concentration of economic resources and services in the cities and the gradual abandonment of the country and rural communities. Meanwhile as the population of Jalisco increased by 28.6% from 1990 to 2010, the population of the municipality of Cañadas de Obregón decreased 19.8% and Temacapulín decreased 26.4%.⁸

Emma explains that her mother decided to migrate to Guadalajara in order to raise Emma and her sisters in a place with better opportunities (EJG-Interview). Education and employment are among the main reasons for internal migration in Mexico. Despite not growing up in Temaca, Emma and her sisters see it as their hometown. Temaca holds the most enduring memories of her childhood and of the holidays she has spent there. It is the place where her grandmother and great-aunt were buried; that is why she felt so much rage when the authorities told them they would relocate the cemetery as part of the dam project. After her mother and uncles left the town, only one piece of land was left for them. They divided it into smaller pieces, and on one of these her mother built a modest hut where they could stay in their visits to town.

Emma is the spokesperson of the Absent Offspring of Temaca Committee. The threat of the disappearance of Temaca produced the organisation of migrants and their descendants to oppose the dam project that would flood their hometown. Currently, there are “absent offspring clubs” (cells of the committee) in Guadalajara, in León (Guanajuato State), Monterrey (Nuevo León State) and Los Angeles (California, US). Emma says that everyone is very involved, although it is the people of Guadalajara who have to carry out most of the activities because it is the capital of the state where

⁸ My calculations based on information from: INEGI, “Principales resultados por localidad”, *Censo General de Población y Vivienda 1990*; INEGI, *Censo de Población y Vivienda 2010*; SEDESOL, Catálogo de Localidades.

the decisions affecting the dam are made and where the headquarters of the local government agencies, justice system and media are located. One of the main functions of the other clubs is to fundraise for the movement. “We are the children that are absent but not indifferent”, she says (SERAPAZ-2012).

Emma is around 30 years old and has spent almost a quarter of her life in the struggle for Temaca (more than 8 years in 2014). She says she is exhausted:

Sometimes it is so tiring, really. Not mentioning the physical fatigue: like I go home, I lie down and rest, but morally, really is like ... [she does not finish the phrase] this fatigue, this weariness that I have everyday in my brain is that uncertainty about what will happen. What's next? How long? Or the “why us?” ...

In my particular case, I sometimes say: why me? ... Like in my family [there is the idea of] “get involved” or “you can’t leave the ship”⁹ ... because you get that moral commitment with those who help you, with those who support you and with your hometown itself (EJG-Interview).

Figure 7.3. Emma Juárez



Source: Photographs by the author. March 2013, Guadalajara City

⁹ *Bajarse del tren*, leave the train, in Spanish.

She no longer knows what is a normal life. After graduating as a Bachelor of International Business she travelled to the US with her friends to learn English, as many young Mexicans do. When she returned to Guadalajara, she started to work in the state government. However, after she became involved in the defence of Temaca, she was told by her management not to be involved, because it was against a project promoted by the government, her employer. She preferred to follow her conscience and as a result she lost her job. Emma has been unemployed ever since.

I can't tell you if this is normal or abnormal in a human being. What it is clear to me is that I have a strong conviction that obviously has been noticed ... My friends, when I see them ... to make fun of me [say] "yes, you are Mother Theresa" or "the saviour of nature" ... And it is then, I realise: "well, I feel sorry for you guys, you are the abnormal ones, because ... you studied [went to university], I don't criticise that, I'm a professional myself, thank God, but you don't go beyond, you don't go for life or contribute to society" (EJG-Interview).

... reading, passing exams, is very cool, but participating with or being part of the affected is not the same ... It sounds cool when it is in the books, but being part [unintelligible, crying] (EJG-Audio).

Unlike other countries, where activism is a common practice and NGOs are normal in society, in Mexico activism is a big personal burden in economic and social terms. Activists are heavily criticised by a majority of the population regardless of social class. They are often seen as useless, lazy people who do not want a proper job.

Losing her "normal life" has wrought a major transformation in Emma. She has adopted a discourse deeply rooted in "nature". What she is now and the effort she has put into the movement will possibly make her feel more welcome by mother earth when she returns to it (when she dies). She is no longer afraid of dying because now she understands nature (EJG-Interview).

Emma speaks of the movement as part of a "water revolution" aimed at seeking new alternatives to water management that are sustainable and have a real public benefit. She has adopted an approach that is against dams and in favour of a "new water culture". Over the years, many scholars and specialists in water and environment

have joined the networks around Temaca's resistance. The people of the movement have established a special relationship with those academics; they have shared with the movement their technical knowledge in water management and the world's best practices in water sustainability.

Emma now speaks the technical language of water management. She understands that the impacts of the dam would go beyond the displacement of Temaca and the other two communities. She speaks of the regional impact, particularly for a region like Los Altos that is a major producer of livestock and farming and depends directly or indirectly on the basin's water. The dam would capture the water and send it to a different hydrological region (to the State of León) for industrial purposes. She also objects to the short useful life span of the dam (25 years), which is nothing compared to the centuries that Temaca has existed as a human settlement.

She speaks as well of water sovereignty at state level when she questions the dam that would take water from Jalisco to Guanajuato State:

[Sovereignty] should be also respected between states. That water would not go to Jalisco, not even to Los Altos; it is precisely for León, in Guanajuato ... neither is it for human consumption in Guanajuato. I mean, if it was for it [for human consumption], well in that case we should share it ... We have never say that we don't like to share. On the contrary, we have always said "we don't deny them water". We all need it (EJG-Interview).

Emma also highlights the issue of corruption and conflicts of interest. The dam project aims at private rather than public benefit, she asserts. From the beginning of the conflict there has been a rumour: the dam is meant to provide water to the properties in Guanajuato owned by Vicente Fox (Mexico's president from 2000 to 2006). Emma believes this is true:

We know that it [water] is for Puerto Seco,¹⁰ owned by someone, who is the ex-president. Thus it is about international business ... predators want to keep doing the same.

...

¹⁰ Puerto Seco translates as 'dry harbour'.

From the beginning they have the mission of providing this water to the president [Fox], in that moment it was 80 meters [the projected dam's wall] ... But it turned out to be that in the PAN government a lot of businessmen thought "well, it [water] can be sent not only to Leon, it can be sent to some of our industries and businesses too, let's raise it [the wall] to 105 m" (EJG-Interview).

She asserts that behind the Zapotillo project there is a "hydro-mafia" made of people from the PAN, particularly from the *yunque* (a secret society with an extreme-right ideology) and the PRI. Her discourse reveals her conception of power relationships in which the "screwed" are always abused. This explains why Temaca, Acasico and Palmarejo are seen as "insignificant settlements" by the powerful. The project is an imposition and the attempts at dialogue are not authentic. For instance, in the roundtables organised by the government in 2011 between authorities, the community and social stakeholders, Emma maintains that there was not dialogue and they were "imposition and betrayal roundtables" (EJG-Interview).

The antagonistic perception of the powerful versus the dispossessed is common in social movements and amongst activists in Mexico, particularly the most radical ones. Despite sharing this perception, Emma cannot be considered as a radical or an eco-anarchist. Emma works within the institutional establishment. She considers that it is up to society to stop bad policies and demand good ones that properly address the water problems.

She has become a cosmopolitan environmental citizen, who has joined environmental networks, both national and international. She has been a very active participant in several environmental organisations such as MAPDER, REMA and International Rivers. She has participated in the activities of the movement with international organisations, such as the hearing of the Permanent Peoples Tribunal in 2012, the visit to Temaca made by the UN Special Rapporteur on the Right to Food in 2011 and the pronouncement of Amnesty International asking the government to respect the human rights of the Zapotillo dam's opponents.

I asked Emma if she would continue participating in other social movements once the Zapotillo dam conflict is finished. She said that, after having a break for resting and

trying to get her normal life back, she would keep on supporting them, because as part of society she should not be apathetic (EJG-Interview). She already supports and interacts with other social movements, for instance, the Movement for Peace with Justice and Dignity, lead by the poet Javier Sicilia (SERAPAZ-2012).

Emma and other “absent offspring” like her in Guadalajara work non-stop to defend Temaca. Their activities include demonstrations, lobbying, press conferences, interviews in the media, and at academic and sporting events. Sometimes, they attach banners to their clothes and bikes and go to the Wednesday nocturnal bike rides that try to promote cycling as a sustainable method of transportation in Guadalajara as sustainable transport in Guadalajara. She also has a very active virtual life, mostly in Facebook, in both her personal account and in *Los OJOS del mundo están puestos en Temaca* (“the eyes of the world are set on Temaca”).¹¹

Emma is very passionate, always smiling, and with no hesitation in expressing what she thinks. When interviewed in the media sometimes she finishes with this slogan: “Temaca is not on sale, it is not to be expropriated and it is not to be relocated.”

Documents

EJG-Audio	JUÁREZ GARCÍA, Emma, in rountable “The Voice of the Actors”, Congress of the Asociación Mexicana de Estudios Rurales [Mexican Association of Rural Studies] [Audio recording]. Guadalajara, México, 7 March 2013. Recorder, transcriber and translator: Fabiola Figueroa Neri.
EJG-Interview	JUÁREZ GARCÍA, Emma. Interview conducted in Guadalajara, Mexico, 7 March 2013. Interviewer and translator: Fabiola Figueroa Neri
SERAPAZ-2012	<i>Programa SERAPAZ-Servicios y Asesoría para la Paz</i> [Internet TV show]. TV presenter: Alberto Solís. Rompeviento TV, 2 November 2012. Available in http://www.youtube.com/watch?feature=player_embedded&v=5SMSj_liBnU v.i. 11 March 2014. Transcriber and translator: Fabiola Figueroa Neri

¹¹ <https://www.facebook.com/groups/134184409964953/>

7.4. Martín. Leaving the soul in Temaca

Just one light will guide us in this peaceful struggle, that is already an example for many towns of Mexico and the world: we will not accept the relocation nor the flooding of our town.

May the ones who govern understand that when Temaca lives in soul, it is defended with everything, until the very end.

(Rodríguez, 2012, p. 91)

In 2010 Mexico had a population of around 112 million (0.9% of which are foreigners¹²), according to data from the National Institute of Statistics and Geography (INEGI). This quantity does not include Mexicans living overseas. According to data from the World Bank, Mexico has more migrants living overseas than any other country. It had 11.9 million in 2010; followed by India (11.4 million), Russia (11 million) and China (8.3 million) (Alba, 2012, p. 20).

Most Mexican migrants live in the US (98.1% in 2010) (Alba, 2012, p. 26). Data from the US Bureau of Labour Statistics indicate that in 2012 there were 33.7 million Mexicans in US; 11.9 million migrants and 21.8 in the second and third generations (Alba, 2012, p. 42). Mexicans abroad sent around 22,000 million dollars of remittances to their families in 2010; which was equivalent to 2%¹³ of Mexico's gross national product by the end of 2010. Mexico is among the top five countries that receive remittances; it has the third place after India and China, and is followed by Philippines and France (Alba, 2012, p. 83).

The border between Mexico and the US is 3,145 km long and is the most crossed border in the world. The phenomenon of Mexico-US migration entails a remarkable complexity. Among many factors, poverty and marginalisation on the side of Mexico and demand for cheap labour on the side of the US produce a constant flow of

¹² INEGI (2011), "Migración Internacional", v.i. 15 April 2014

<http://www3.inegi.org.mx/sistemas/sisept/Default.aspx?t=mdemo63&s=est&c=23634>

¹³ Calculations of my own, with data from INEGI, *Banco de Información Económica*, www.inegi.org.mx/sistemas/bie, v.i. 15 April 2014 and exchange rate of 31 December 2010 (www.xe.com v.i. 15 April 2014).

migrants that aspire to a better life in the US, despite the risks of crossing the border and the adverse conditions they will face there. The US estimates that of the 11.5 million unauthorised immigrants in its territory, 6.8 millions are Mexicans (data from 2011, INEGI, 2013).

But not only international migration affects regions like Los Altos. Internal migration, mainly from rural to urban areas, has produced the abandonment of small settlements. Men and the young usually leave first. The available data shows that Temaca's population has decreased in the last decades, from 451 in 1990 to 332 in 2010. In the past the proportion of men and women was unbalanced: 44.1% were men and 55.9% women in 1990; in 2010 the composition was 48.8% men and 51.2% women.¹⁴

Martín was one of those young males who left Temaca when he was a teenager, at the end of the 1950s. In his book *Temaca in the soul* (Rodríguez, 2012), Martín tells his story and at the same time the story of a town, a river and their marginalisation from history, i.e. from the country's development.

Temaca has a street called Porfirio Díaz. This is quite unusual in Mexico because the revolution that deposed the dictator Díaz established a new cult to the revolutionary heroes; cities and towns in Mexico have streets that commemorate these heroes together with the personages of the Independence period and the 19th century reform movement. Martín describes Temaca's bandstand in the central garden, with symbols from the Porfirian times. Regarding public power, the town has a "civil registry" (registry of births, deaths and marriages), the office for the municipality's representative, and a dispensary. Martín explains that these few government structures correspond to what was known as the *república de indios* (republic of indigenous people); "it was understood that the town would be inhabited just for the natives and governed by themselves; besides them, just the catholic priests and some

¹⁴ My calculations with information from: INEGI, "Principales resultados por localidad", *Censo General de Población y Vivienda 1990*; and SEDESOL, Catálogo de Localidades.

people in charge of culture and people's education could live there" (Rodríguez, 2012, p. 18).

In my opinion, this idea of autonomy still persists in the people of Temacapulín. The common belief is that the town lives by itself; it receives very little from the State. Townspeople do not have expectations about the government; they do not demand anything because they have what they need.

In his reflections about the town's history, Martín says that there was no agrarian reform in Temaca. The agrarian reform was one of the main products of the revolution; it consisted in land distribution among peasants through communal property (*ejido*); the revolution was against the large estates (*latifundia*) that have kept peasants in extreme poverty. Martín observes:

In my town the agrarian reform never arrived and it is not because our heroes did not love us (or maybe it is true that they did not love us); the truth is that there was no land to distribute; because, unintentionally, it was already distributed from the times of the Colony.

...

So, what did we want the agrarian reform for? Everyone was a small-land owner and those who could not sow all their land, gave [lent] a part to those like us, who had not any land (Rodríguez, 2012, pp. 19-20).

Before 1953 there was no a school in Temaca; the people who could read and write had learned in the Church. In 1954 they built a school which, according to Martín, has basically the same facilities as today. There were just two teachers (one for the boys and one for the girls) and a single class with students from 7 to 18 years old. It provided just three years of elementary school. To study the 4th year, children would have to walk 7-8 km to the municipal centre in Cañadas de Obregón (MR-Audio). Despite this limited education, Martín says that Temacans had a good life.

1957 was a very bad year for the community. A prolonged drought seriously affected Temaca. The cattle died, crops were lost and the river stopped flowing. It became small ponds where the fish could not survive. Some "absent offspring" living in Los Angeles sent some trucks of corn and beans to distribute among everyone to avoid

starvation (Rodríguez, 2012). Martín believes that these events produced more migration:

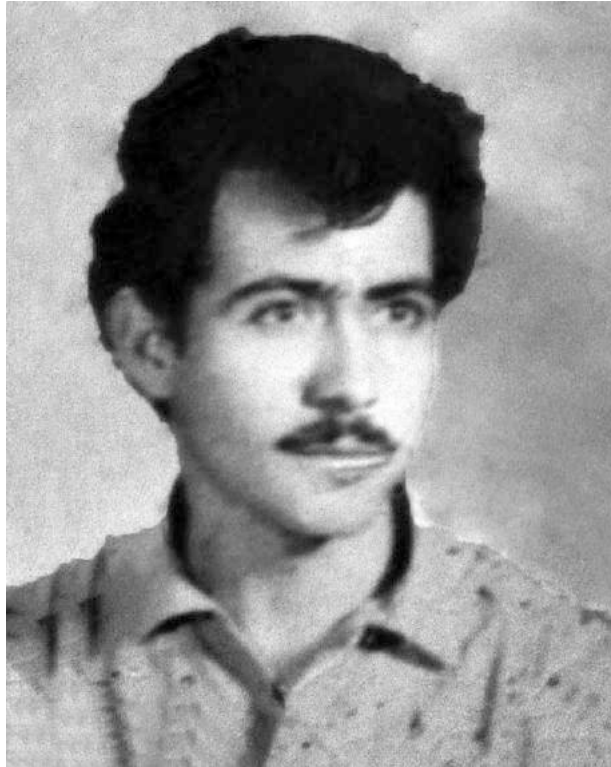
Some *paisanos* [compatriots] had to go to the big cities; most of them to the North [US]. We never had the support of the governments; they abandoned us, they forgot us when the tragedy was big and we needed reinforcements. They did not respond as they should, i.e. helping the people, Mexico's people. No, they just visited us in the next elections to promise heaven; yes, as you hear it, promise heaven (Rodríguez, 2012, p. 24).

In those years the government was discussing the construction of the dam, La Zurda, which would flood the town. Inhabitants of Temaca recall that they were hired to build the road to the town (before they had to use donkeys to go to Guadalajara city, a five-hour trip), to prepare for the dam's construction. "We worked on it and we never imagined that big works like this would take our homes many years later", says Poncho, another native of Temaca and member of the Committee (Ramírez, 2010).

The project was cancelled in 1958, the same year as the end of the drought. The rain came back, it flooded the crops and the river grew so much that it dragged trees and even cattle into its current (Rodríguez, 2012). But it was too late for Martín's family; the drought had put them in a very precarious situation. Besides, in 1957, his mother and his sister in-law passed away. After a while, Martín left Temaca "with broken trousers ... [I went] from prince to beggar; I left crying and promising never to be back again" (Rodríguez, 2012, pp. 24–25).

Martín worked first in the State of Michoacán; he worked hard and managed to build a small business of his own. He married and had children. Some years later he broke his promise: he returned to Temaca and loved it again. He would like to live there forever, have some land to sow or some cattle and be happy; but his income was not sufficient to make his dream come true. So he had an idea: "I go to the North [US], I become rich and I go back to my town" (Rodríguez, 2012, p. 26). After discussing it with his family, they decided that he would go first and then take them with him to the US.

Figure 7.4 Martin at a young age



Source: Martín Rodríguez

Martín crossed the US border as a *mojado* (wet-back or illegal migrant) in Tijuana and worked in lettuce fields in California. He was expelled three times by the *migra* (migration rangers), but managed to go back. He came back to Mexico every two years, but “between outwards and inwards, the money finished and the wealth never came” (Rodríguez, 2012, p. 26). Martín tells that in 1987 the US government established an amnesty for illegal migrants working as peasants and that is how he could become a US resident. It was not until 1991 that he could apply for his family’s residency and they were finally together, although they had no money. His children learned English, studied, got jobs and married in the US. He and his wife both had jobs but never became rich. Martín says:

Now I am old and with some money so I am not in the extreme poverty, let’s say a little of money to live without luxuries. Apparently we were happy and we thank the Universe supreme creator for this (Rodríguez, 2012, p. 27).

Despite it all, his dream of returning to Temaca has never disappeared. They spend holidays in his hometown every year. In his research about the returning migrants,

Mestries (2013) describes this as the “Mexican dream”, the longing of Mexican migrants to return to their place of origin. The goal of returning is continuously postponed for many reasons. Mestries explains that the longing for the mother country (*matria*, as opposed to *patria*, fatherland) is due to an incomplete integration with the recipient culture and to a deeply-rooted feeling of belonging to the origin community. The migrant suffers the Ulysses syndrome, of lack of affection and guilt for those who were left behind (Mestries, 2013). From a psychological perspective, Sánchez-Quintanar (2005) outlines that mental health issues that migrants may suffer (anxiety, depression or addictions, for example) are part of the stress of culturalisation, the change from a traditional life, of extended family and community participation to modern life-styles (Sánchez-Quintanar, 2005).

For Martín, the project of the Zapotillo dam has been the “worst nightmare”. It is the project that would ruin his dream of retirement in Temaca. He thinks that “the government has persisted to destroy us; after not paying attention to us, it did not give us education, it did not give us work opportunities, and now it denies us the opportunity to return to the town” (MR-Audio). Martín describes this as “the ghost of un-governability” that has always chased Temaca, the betrayal of a government that has never been there.

Martín sees no social benefit in the Zapotillo dam. He asserts:

The truth is that governments have always chosen small towns of poor people to make their business ... the companies that are building it will charge water during 25 years to get [their investment] back This is, as it sounds, just water privatisation and thus a business; and of course the poor small towns will not be capable of defending their ideals nor their rights for a long period (Rodríguez, 2012, p. 29).

Martín gets indignant about how the community has been treated during the process of implementing the Zapotillo dam. There was no consultation and nobody has cared about listening to them. He describes it as a “war of nerves and rumours” that Temaca is facing, an unequal struggle where the community has the right on their side, but the government has the strength (Rodríguez, 2012). The neighbours of Temaca, Martín says, have received from the authorities “mocks and threats”. He challenges: “What

happens to you sirs, people's representatives? Is this the way to treat to those you rule? Remember that your salary is paid with the people's taxes and thus the people deserves your respect" (Rodríguez, 2012, my translation).

Martín shows a contradiction in the government's actions. The government acts in an arbitrary way infringing its own rules and speaking of democracy without knowing what democracy is. He remembers that members of the movement helped him to witness a meeting with the Governor of Guanajuato, the mayor of the city of León and people from CONAGUA. A woman questioned the authorities, telling them they were not acting in a democratic way. León's mayor answered: "Madam, the real democracy is looking for the welfare of the majority"; Martín reflects on this: "I wonder, really, is this what democracy is for, sirs from the government? Isn't it that democracy advocates that the same rights of the many are the rights of the few? Besides, the progress of many cannot be forged in the disgrace of few" (Rodríguez, 2012, p. 44).

In his narrative about the abandonment by the government, Martín points out that Temaca's progress and improvement has been achieved by the absent offspring in Guadalajara, Monterrey and Los Angeles (US). He uses the electricity supply as an example. Temaca lacked electricity until the 1970s when the Absent Offspring and some wealthy neighbours in Temaca negotiated with the state's facility and contributed around 70% of the investment.¹⁵

The Committee of Absent Offspring is composed of people living in Mexico's cities (like Guadalajara or Monterrey) and people in the US, mainly in Los Angeles (LA). Martín asserts that around 800 people from Temaca (or their descendants) living in LA have organised the Temaca Club in LA, which is part of the Jalisco's Clubs Confederation (Rodríguez, 2012). The Temaca Club has participated in the resistance of Temaca against the dam in several ways. In November 2011, around 150 members held a demonstration outside the Consulate of Mexico in LA, although they were told that the Consul was very busy and could not speak with them (Rodríguez, 2012).

¹⁵ He tells the anecdote that after all there were 6,000 pesos (around 500 AUD) missing and the priest pledged his car to get the money (Rodríguez, 2012)

They also tried to make a demonstration during the event at which the Mayor of Downy took up the office, because Jalisco's governor (the mayor's cousin) was going to attend; but he did not.

In his book, Martín devotes a section to his reflections about "water, rivers and lakes". He acknowledges that ecological crisis could "end our planet". He regrets that the natural resources of Mexico are being damaged. He regrets the deforestation of Michoacán due to fires and the lack of public fire-fighting infrastructure.

In the case of Jalisco, Martín is worried for the deterioration of Chapala Lake and the pollution of the Santiago River. He posits a rhetorical question, which is about the origin of the water pollution: is it the industries or overpopulated cities? He asserts that it would be more logical to connect the sewage and industrial discharge to a water treatment plant and, once the water is clean, to direct it back into the river. He refers to how water is treated in the US and considers that the same technology could be applied in Mexico.

Even though the Verde River is not so polluted as the Santiago River, Martín remembers how until the 1970s the water was so clean that the fish could be seen even at a depth of six metres, and today "not even the cows drink [this] water" (p. 85). He adopts the conclusions of the scholar Pedro Arrojito (who has visited the community several times): the problem of Jalisco is not the lack of water but the lack of clean water.

Martín's ideas are not exclusive to him. His life and experiences as a migrant and as an environmental-affected person can describe the concerns of many of Mexicans migrants, particularly from rural and marginalised areas. What is unique about Martín is his written and published history, his book, *Temaca in the Soul* (Rodríguez, 2012).

Mexico is a country of “functional illiteracy”. People know how to read and write. Mexico has a literacy rate of 95.2%¹⁶, but very few people actually read. Data from the OECD show that Mexico has position 107 within the 108 countries that read most and there are only 600 book shops in the whole country (Mireille, 2013). A 2006 Reading Survey reported that 56.4 % of the population said they currently read books, 30.4% said they have read a book and 12.7% had never read a book. The books that are read are mainly for school (32.5%) (CONACULTA, 2006).

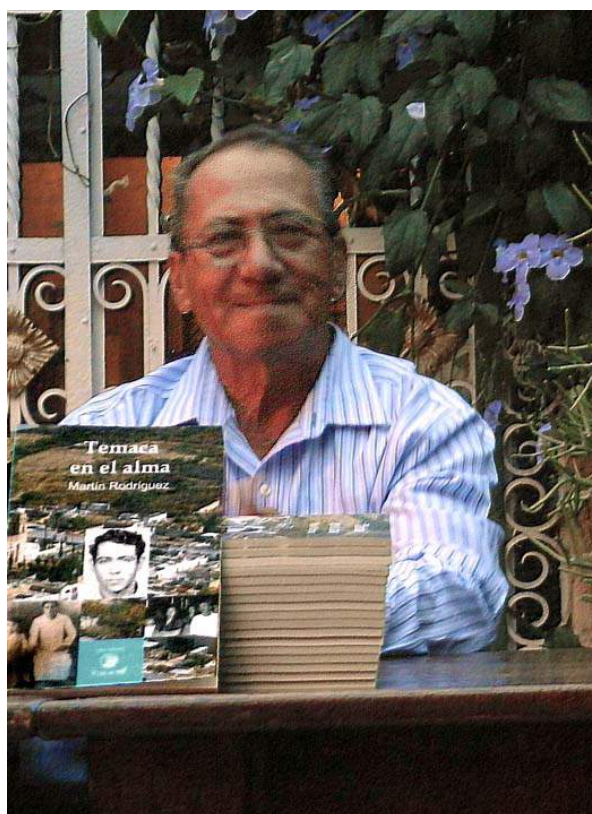
This data suggests that Mexico is far from being the best place for writers. Publishing is very difficult for new writers. The main option is to pay all the costs to small publishers. Selling and distributing this kind of book is even more difficult than publishing. Apart from the very few independent booksellers, the author has to promote and sell the books by him/herself.

Martín has a very good style in his writing. His book is very enjoyable; with simplicity and beauty he addresses his memories, reflections and analysis about the movement against the dam. At the end of the book he includes a pair of poems: one to the *chile de árbol* (the kind of chilli that Temaca produces) and the other “To Temaca in the future”.

The book has its own story, Martín says. He had some previous writings and showed them to Guadalupe, the movement’s lawyer; Guadalupe liked them and encouraged him to write a book (MR-Audio). Martín spent six months in writing and editing until the final manuscript was ready. He contacted an institution that was going to fund the edition, but after some months he was informed that the budget was insufficient for it. Martín then found a small publisher, La Casa del Mago, and he provided the money for its production (LIBCON-2013).

¹⁶ According to Narro & Moctezuma, 5.4 millions do not read or write of a total population of 112.3 millions in 2010 (Narro-Robles & Moctezuma-Navarro, 2012)

Figure 7.5. Martín in the presentation of his book



Source: Photograph by the author. 14 March 2013, Guadalajara City

At the time of my fieldwork (March 2013), Martín had had two events to launch his book, one in Temaca and the other in Guadalajara. The edition was about to sell out. I believe that the book has become a symbol for the movement. Others have been published, too, during the years of the movement (e.g. Casillas & Espinoza, 2010; Espinoza-Sauceda & Gómez-Godoy, 2012). These written documents will transcend time, in contrast to the period of the “imperial presidency” when social movements were not properly documented.

Documents

Rodríguez, 2012	RODRÍGUEZ, Martín (2012), <i>Temaca en el alma</i> [Temaca in the soul]. Guadalajara, México, Editorial Casa del Mago, 108 pp.
MR-Audio	RODRIGUEZ Martín, in his book’s presentation in the café El Colectivo Santa Tere [audio recording]. Guadalajara, Mexico, 14 March 2013. Recorder, transcriber and translator: Fabiola Figueroa Neri.
LIBCON-2013	<i>Entrevista con Martín Rodríguez autor del libro “Temaca en el Alma”</i> [Internet

	<p>Radio]. Interviewer: Mónica. Libertad y Concordia, 15 January 2013.</p> <p>Available in http://libertadyconcordia.wordpress.com/2013/01/15/entrevista-con-martin-rodriguez-sobre-libro-temaca-en-el-alma/ v.i. 14 April 2014. Transcriber and translator: Fabiola Figueroa Neri</p>
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7.5. Guadalupe & Claudia. From the left to the Catholic environmental advocacy

Guadalupe Espinoza (together with his wife Claudia Godoy) is the legal representative and counsel of Temaca in court. They are the ones who took the case to court to stop the construction of the dam. Their biggest achievement has been the resolutions of the Supreme Justice Court of the Nation (the highest tribunal in Mexico) that has ruled against the construction of a 105-metre dam wall, which would flood Temacapulín.

In countries where the rule of law is strong, a “supreme court” or tribunal resolution would end a conflict like this. Not in Mexico. According to the 2014 Rule of Law Index (WJP, 2014), Mexico has a weak rule of law. Mexico scored 0.45 in the overall index (0-1 scale) and had the position 79/99 in the global ranking.

The legal system in Mexico is characterised by its remarkable complexity, where justice is a labyrinth. Deficiencies in the rule of law have produced dysfunctional practices. First, justice has tolerated the existence of “legal fraud” or *fraudem legis*,¹⁷ a situation where someone thwarts the law’s purposes using the text of a law.¹⁸ Second, the corruption of the judicial system has produced a selective application of law. The Mexican saying, “For one’s friends, justice and grace; for one’s enemies, just justice”,¹⁹ denotes the existent nepotistic and clientelist culture. Law can be flexible or soft for the powerful or their friends and excessive for their powerful opponents or the dispossessed (who have no powerful friends). Third, in an authoritarian environment the powerful can simply ignore the law, impede its enforcement and manipulate public opinion to legitimise their actions.

¹⁷ *Fraudem legis* or *fraus legi facta*, in Latin; *fraude a la ley*, in Spanish. There is no a direct translation to English; it can be comparable to “legal fraud”, “abuse of law”, “contravention of the law” or “evasion of the law”.

¹⁸ Or choosing a law that is favourable for their purposes when two possible laws can be applied.

¹⁹ In Spanish: *A los amigos, justicia y gracia; para los enemigos, justicia a secas*. It is a 19th century phrase attributed to Benito Juárez, Mexico’s president and founder of the republican state.

In these circumstances, the legal defence of the marginalised faces a very adverse environment and has few chances of success as a real solution for their problems. Guadalupe distinguishes three fronts in the struggle of Temaca: the front of politics, the front of the media and the legal front. He and his wife are in charge of the legal side, as counsel for the movement, and also of the media (GES-Interview). Guadalupe asserts: “Stories don’t appear by themselves in the newspapers. Someone has to speak with the journalists, send them information, spoil them, indulge them and be a trustworthy source [of information]” (GES-Interview). He also is very active on Facebook. “Saving the town of Temaca” is declared as his current employment on his Facebook profile (v.i. 31 March 2014). He has also published two books about Temaca’s resistance movement (Casillas & Espinoza, 2010; Espinoza-Sauceda & Gómez-Godoy, 2012).

Guadalupe participates as much as possible in pro-Temacan activities. He has shared the risks of a movement that opposes powerful stakeholders within the community. In May 2012, the authorities abused Guadalupe and Father Gabriel, on the site where Talicoyunque (the “new-Temaca”) is being built. In a community meeting they heard that the construction works was continuing despite the resolution of Jalisco’s Administrative Tribunal that voided the relocation of Temaca and thus declared the suspension of the construction of Talicoyunque. They went to the construction site and the security staff fired their guns very close to them. When they were about to leave, the security staff came outside the construction site, shone a light on them, forced them to get out of their car, get down on their knees and verbally abused them before finally letting them go (Chávez-Ogazón, 2012).

Not so long ago, Guadalupe and Claudia became residents of the State of Jalisco. In 2008, he moved from Mexico City to Guadalajara to work on the case of Temacapulín. He already was part of the *Colectivo COA-Autonomía y Territorio* (COA), an NGO devoted to the defence of indigenous and collective rights (GES-Interview).

Figure 7.6. Claudia Gómez y Guadalupe Espinoza



Source: Photograph by the author. 15 March 2013, Guadalajara City



Source: Photograph provided by Guadalupe Espinoza from his Facebook site

Before Guadalupe and Claudia's involvement in the Temacan movement, another group of lawyers was interested in informally advocating in the case. It was the Institute of Environmental Law (IDEA, *Instituto de Derecho Ambiental*), led by lawyer Raquel Gutiérrez Nájera. This group represented the community that opposed the Arcediano dam, proposed in 2001-2002 and cancelled in 2009, which was the immediate precedent for the case of the Zapotillo dam. IDEA works very closely with the Lerma-Chapala-Santiago Basin Foundation, another NGO lead by a businessman and politician, don Manuel Villagómez, known for his strong personality and political convictions. Manuel Villagómez served as representative in the local parliament from 2007 to 2010; he is a member of the left-wing party PRD.

The movement pro-Temaca decided to appoint the newcomer, Guadalupe, as their legal representative and counsel over the IDEA lawyers. This decision shows one of the characteristics of this social movement: they try to stay neutral in political terms. In other words, they make no distinction for any political party and they have not allowed any party to "appropriate" or represent the movement. Also, the movement stands out for its "horizontal" (democratic) organisation, different to a vertical

structure lead by a strong personality as is characteristic in the patriarchy-culture in Mexico.

Besides the social merit and the personal satisfaction, being appointed as counsel for Temaca is far from rewarding in economic terms for Guadalupe and Claudia. They have now three children and their economic situation is complicated and uncertain. Guadalupe reports that for the first two years he had a stable income from COA, because they were funded by the ETC-Group (Action Group on Erosion, Technology and Concentration), a US-Canada NGO. But the focus of ETC-Group was the issue of corn, not water or large dams. This disparity of objectives produced the eventual dissolution of COA because of a lack of funds:

Nobody wanted to fund lawyers. So, the cash for corn was used for defending Temaca. We worked in this way one or two years. I'm not saying we earned a lot; our income was around 3,000 fortnightly (around 250 AUD²⁰), maximum 4,000, plus expenses, and per-diem that we spent in food and petrol. We had it. But it was over and they didn't want to fund us ... We thought it was awful to abandon the struggle [for Temaca], so we continued in it. I lectured in workshops [diplomas and short courses] in Oaxaca, Veracruz, Puebla, Tlaxcala [central and south eastern states]. I go to lecture there and we are hired for some advisory works. From there, and with money from other activities we funded Temaca for almost 2 years (GES-Interview).

In colloquial terms, we say in Mexico that this is a “crossed subsidy”, which means that resources from one activity or institution are informally used to fund social causes. In December 2012 Guadalupe spoke with the community and told them he could not sustain this situation anymore because he had to maintain his family. The Committee Let's Save Temaca decided to pay 20,000 pesos monthly (1,650 AUD²¹) for the two of them. In January 2013 they received the agreed sum, but in February the community could collect only 14,000 (GES-Interview). My interview was conducted on the 12th of March and he had not yet received the payment for March.

²⁰ 3,000 MXN is equivalent to 247.72 AUD. Source: <http://www.xe.com>, v.i. 1 April 2014.

²¹ 20,000 MXN is equivalent to 1,650.04 AUD. Source: <http://www.xe.com>, v.i. 1 April 2014.

During my visit to Temacapulín (23 March 2013) I heard about the difficulties that the Committee faced in collecting the money for the lawyers. They had the typical problems of collective action (the “prisoner’s dilemma”). The president of the Committee asked me about the budget I had for my research. She wanted to know about the gifts offered to the participants in the PRA workshop because she believed that any economic incentive would be better invested in paying the lawyers.

Guadalupe sees the positive side of the situation. He compares his and Claudia’s situation with formal NGOs involved in the movement, like IMDEC (the main Temaca’s supporter). IMDEC has an annual budget of several million pesos. They have offices and the staff has holidays, end-of-year bonuses, and so on. He and Claudia have none of those benefits. This can explain why they can be more “radical” in their positions and struggles for Temaca, because they have nothing to lose (GES-Interview).

Guadalupe’s social commitment is rooted in his political convictions and ideology: “My wife Claudia and I ... come from left processes, from the left struggles, from the Zapatism ... I studied in the UAM [Metropolitan Autonomous University in Mexico City] ... which has a model of Marxism” (GES-Interview). This reference posits a key issue to fully understanding Guadalupe, the relationship between public universities and left ideologies in Mexico.

In the post-revolutionary period (the 1940s to the 1960s) the public universities burgeoned and worked in harmony with the state and social demands (Fuentes-Molinar, 1983). The middle class²² populated these public universities. These institutions became the place of training the public bureaucrats and politicians that would form the “political class”. Olac Fuentes considers that the universities and their students had a crucial role in reproducing the ideology and power relationships that prevailed in the Mexican state (Fuentes-Molinar, 1983).

²² Olac Fuentes considers the universities population was mainly made of medium and small bourgeoisie (Fuentes-Molinar, 1983)

The harmony between public universities and the state came to a crisis in the 1960s. Groups of students emerged with ideologies that questioned the social order and an intellectual climate of dissent was produced. Olac Fuentes points out that three phenomena converged in the process: 1) the re-emergence of the left-wing, 2) the extension of Marxism, and 3) the Cuban Revolution (Fuentes-Molinar, 1983). The massacre of students in 1968 also reshaped the relationship between the state and the universities. Public universities became objects of state repression and a climate of passive hostility against the state emerged. Many public universities ever since have been governed by groups with left ideologies (Fuentes-Molinar, 1988). Universities are important stakeholders in politics, both at an institutional-corporatist level and in the involvement in social movements by groups of professors and students. The UNAM (National Autonomous University of Mexico) and the UAM are the most notorious cases of the reproduction of left ideologies, particularly in the field of social sciences and arts (humanities).

Guadalupe and Claudia frame the question of dams in the capitalist development model:

Dams in Mexico and in the world have been imposed as the only model of capitalist development to feed and provide water to an increasing world population that moves from the countryside to the big cities ...

In Mexico ... the construction of dams has signified plundering, pollution, privatisation and disgrace; in our country, community models of controlling water and land still exist, [in] a collective way. Among others, dams are the means of snatching this community control of the waters to put it in the hands of the National Commission on Water (CONAGUA), the Federal Commission of Electricity and private companies (Espinoza & Gómez, in Casillas & Espinoza, 2010, p. 151).

They assert that this is a case where the poor are dispossessed and the rich and businesses benefit. Besides being a source of sustenance, land, rivers and water are the people's space for social and cultural reproduction. Resistance movements against dams in Mexico have increased because the government is repeating the same mistakes (Espinoza & Gómez, in Casillas & Espinoza, 2010).

Claudia and Guadalupe are concerned for the rights of people. The Zapotillo project is not only defective in administrative and legal terms, according to Claudia. Forced displacement of communities violates the “right to exist” of the towns, and the individual and collective rights to preserve their life, culture, religious customs and identity (Gómez in Casillas & Espinoza, 2010). Guadalupe asserts that dam construction in Mexico infringes the following human rights: to life, to development, to a healthy environment, to health, to food, to be consulted, to water, to legal certainty, to have a job, to have a house and others (Espinoza in Casillas & Espinoza, 2010). Mexico lacks regulation about the relocation of human settlements in this regard. Guadalupe suggests that Mexico should follow the UN guidelines on development-based evictions and displacements.²³

In the case of Temaca, Guadalupe has a double goal. The first one is self-evident: it is saving Temaca. The second one is making a change in the community. He would like them to have a “political conscience”.

I believe Temaca only wants to save itself, stop the dam and continue their normal life ... But we want to take it further. We want other things, we want another kind of development [model], a new life for them.

...

We have been very interested in encouraging a more horizontal [decision-making model], more discussion and encouraging people to become subjects. [We want the people] not to be objects, but [active] subjects, to develop a conscience, to think in the collective, to see the problem of the dam not only as a problem of their dam, but as a problem of the development model in the country and in the world, [a problem] of capitalism (GES-Interview).

Guadalupe acknowledges that such a change would be very difficult because it would require the people’s mentality to change. This has been a “titanic” work for them. He

²³ Specifically, the General Comment #7, issued by the Committee on Economic, Social and Cultural Rights (Commission on Human Rights) that states: the “practice of forced eviction constitutes a gross violation of human rights, in particular the right to adequate housing” (<http://www.ohchr.org/EN/Issues/Housing/Pages/ForcedEvictions.aspx>, v.i. 3 April 2014)

says that in the future, Claudia and he would like to establish some sort of school of political training.

Guadalupe has adapted to Temaca's mentality, at least in a particular aspect that challenged his political beliefs. Los Altos region is well known for its extreme Catholicism and the tradition of public education in Mexico is distinguished by its sharp secularism. The constitution that resulted from the Mexican revolution stated: "Education is free; but it will be secular if it is provided in the official institutions of education, the same applies for elementary school and higher education provided by particular institutions" (3rd article, C-1917, my translation). In 1934, under the rule of president Cardenas, the text was changed dramatically:

Education provided by the State will be socialist; besides excluding any religious doctrine, it will combat [religious] fanaticism and prejudices; to do so schools will organise their teaching and activities in a way that allows for creating a rational and exact concept of the universe and social life in the youth (3rd article, C-1934, my translation).

In 1946 the 3rd article was modified again. It omitted socialism, endorsed secularism and introduced values as international solidarity and democracy.²⁴ In the 1990s the text was reformulated again, but it kept the public education secularism. The teaching of social sciences in public universities, particularly those oriented to left ideologies, is characterised by anti-religious thought; in those spaces it is common to hear the idea that religion has been a factor behind people's ignorance in Mexico.

Guadalupe says that sometimes his friends do not understand why he is so involved in a social movement of Catholics. His answer is that he respects the community's beliefs; he understands that the Church is a very important part of their culture. He tells, in an amused tone, that when a tribunal or court rules in favour of Temaca, the people do not thank him as much as they do the Virgin of the Remedies. People from Temaca see all successes (including legal) as "miracles" made by the Virgin or "*el*

²⁴ Diario Oficial de la Federación, 30 December 1946,

http://www.diputados.gob.mx/LeyesBiblio/ref/dof/CPEUM_ref_041_30dic46_ima.pdf v.i. 4 April 2014

Señor de la Peñita" (a Christ-figure on a cliff face venerated in Temaca), he says (GES-Interview).

Figure 7.7. Guadalupe and Claudia in January's festivities of Temaca (2014)



Source: Provided by Guadalupe Espinoza, from his Facebook site

One of the innovations of this movement is the use of religious practices as a strategy in their struggle. For instance, in May 2010 the movement staged a demonstration outside the governor's official residence that consisted in continuous praying to save Temaca. The demonstration aimed at 51 hours of praying. They had prayed just 33 hours when the police arrived and told them that the governor did not want to see them there anymore. To avoid confrontation they took refuge in the closest church and came back the next day to accomplish their praying goal (Covarrubias, 2010a). Guadalupe and Claudia, together with many other supporters, joined the movement to promote and participate in this demonstration. Guadalupe has established a special friendship with Father Gabriel. Guadalupe admires the Father's intelligence and how

quickly he learns. “I guess he changed his vision from a centre-right (wing) to the left”.

Documents

C-1917	<i>Constitución Política de los Estados Unidos Mexicanos</i> , 1917 [Mexican Constitution, 1917]
C-1934	“DECRETO que reforma el artículo 3º y la fracción XXV del 73 constitucionales” [Decree to reform the articles 3 and 73-fraction XXV], in <i>Diario Oficial de la Federación</i> , Tomo LXXXVII, Num. 85, Mexico City, 13 de diciembre de 1934. Available in http://www.diputados.gob.mx/LeyesBiblio/ref/dof/CPEUM_ref_020_13dic34_ima.pdf , v.i. 4 April 2014
GES-Interview	ESPINOZA Saucedá, Guadalupe. Interview conducted in Guadalajara, México, 12 March 2013. Interviewer and translator: Fabiola Figueroa Neri
Espinoza & Gómez, 2012	ESPINOZA Saucedá, Guadalupe and GÓMEZ Godoy, Claudia (2012), <i>La lucha contra la presa del Zapotillo sigue viva</i> . Guadalajara, México, Taller Editorial La Casa del Mago, 88 pp.
Espinoza & Gómez in Casillas & Espinoza, 2010	ESPINOZA Saucedá, Guadalupe and GÓMEZ Godoy, Claudia, “Las presas de México: despojo, contaminación y privatización del agua”, in Casillas-Báez & Espinoza-Sauceda, 2010, pp. 151-154 Translator: Fabiola Figueroa Neri.
Espinoza in Casillas & Espinoza, 2010	ESPINOZA Saucedá, Guadalupe, “El sistema de presas en México. El caso de El Zapotillo”, in Casillas-Báez & Espinoza-Sauceda, 2010, pp. 213- 216 Translator: Fabiola Figueroa Neri.
Gómez in Casillas & Espinoza, 2010	GÓMEZ Godoy, Claudia, “La presa El Zapotillo, un delito de ‘necia’ humanidad”, in Casillas-Báez & Espinoza-Sauceda, 2010, pp. 186-191 Translator: Fabiola Figueroa Neri
Casillas & Espinoza, 2010	CASILLAS Báez, Miguel Angel and ESPINOZA Saucedá, Guadalupe (Eds) (2010), <i>Los ojos del mundo están puestos en Temaca. La Resistencia en Los Altos de Jalisco en contra de la presa del Zapotillo</i> . León, Guanajuato, México, Centro de Orientación y Asesoría de Pueblos Indígenas AC - Comité Salvemos Temaca – Colectivo COA – IMDEC, 228 pp.

7.6. Mireya and Liborio. Revived by the dams

The life of Mireya has been marked by the hydraulic infrastructure development of Mexico. Her father's family was displaced in the 1940s, due to the construction of the dam Lázaro Cárdenas (State of Durango). The community did not survive in the unproductive lands to which they were relocated and her relatives migrated to the US (Acosta-Gurrola, 2013). Her father studied engineering and later worked in the Ministry of Hydraulic Resources (SRH, *Secretaría de Recursos Hidráulicos*), in the planning area. He worked on the topographical studies for forthcoming dams projects.

Mireya met Liborio, her husband, in the Faculty of Engineering of the UDG (University of Guadalajara, the main public university of Jalisco State). They both graduated as civil engineers in 1972 and started their professional careers in the SRH. They witnessed the second part of Mexico's "golden age of mega-dams": 47 of the 100 largest dam of Mexico were built in the period 1960 and 1985; 27 of them were built between 1970 and 1985.²⁵ Mireya asserts that the SRH was *the* real school of engineers, more than universities (Acosta-Gurrola, 2013).

Mireya and Liborio worked on different hydraulic infrastructure construction projects until the 1980s when she decided to work for different consulting engineering firms and he established his own firm. Like many successful professionals that leave the public employment, they joined the academia, in the University of Guadalajara (UDG). Liborio was hired as permanent Faculty member in Engineering and Mireya as a lecturer in Hydraulics and Hydrology. Those were their main activities during the economic and political transition of Mexico, when the construction of large dams declined due to the different economic crises of this period.

²⁵ My calculations with data from the 2010 Water Statistics (CONAGUA, 2010).

Figure 7.8. Mireya Acosta y Liborio Saldaña



Source: Photograph by the author. 2014, Guadalajara, Jal., Mexico

It was a large dam project that took Mireya and Liborio away from the professional impasse and a possibly predictable “retirement”. In the beginning of the 2000s, the Jalisco government launched the Arcediano project, which consisted of a dam to provide water to Guadalajara city; it was located on the Santiago River below its convergence with the Verde River. The project had multiple inconveniences: the Santiago river²⁶ has alarming levels of pollution; the water would have been pumped 530 m to Guadalajara at a high cost in electricity; the environmental impact assessment was incomplete though it would have affected endogenous species and unique climates; the budget seemed too low and it was going to be funded with public debt (Bravo-Padilla & Figueroa-Neri, 2006).

The Arcediano project provoked an immediate reaction of environmentalists, many of them academics in the UDG. At the same time a group of professors from Engineering declared themselves in favour of the dam project. The media asked the UDG for its

²⁶ Part of the basin Lerma-Chapala-Santiago; the Lerma river receives the pollution from Mexico city and runs into Chapala lake (the largest of Mexico); the Santiago river starts in Chapala and receives high levels of pollutions from the industrial park of El Salto then it receive the drainage discharges from Guadalajara city before converging with the Verde river; it ends in the Pacific Ocean.

official stance on the dam. In Jalisco, the UDG plays an important role not only in academic terms, but also as a political stakeholder. The institutional design of public education has empowered public universities in Mexico. Universities are part of the corporatist system. The UDG is an academic community of approximately a quarter of a million people, including academics, non-academic staff and students (La-Jornada-Jalisco, 2014).

In order to define its official stance on the dam, the UDG created a committee of around 50 scientists from different disciplines that worked together during 2004 (Bravo-Padilla & Figueroa-Neri, 2006). Mireya and Liborio were part of this committee from the engineering team. Never before had the UDG built an interdisciplinary team that involved a large network of academics to analyse a development project from an environmental perspective. In May 2004, the committee presented its first report to the governor's office and to the dam promoter, the CEA.²⁷ The report asserted that the Arcediano project was not viable in economic, public health and environmental terms (Bravo-Padilla & Figueroa-Neri, 2006).

The governor's office requested the UDG to have roundtables with the CEA to discuss the project in-depth so the CEA could provide better and more convincing data to the UDG. The roundtables worked from June to December 2004, organised into five topic areas: 1) hydrology, 2) geology, 3) health impacts, 4) costs, and 5) sustainable development and territorial planning. The first two topics were proposed by the CEA and the others by the UDG.

The Arcediano roundtables revealed the existence of two competing paradigms (Figueroa-Neri, 2006). The CEA had a traditional paradigm; the one that the water bureaucracy had used in Mexico for the development of the hydraulic infrastructure. The paradigm establishes a dam-design methodology based on hydrological and geological assessments of potential sites. Once the site is selected or the potential "issues" are solved *ex-post*, e.g. negotiations with communities, resettlements, water

²⁷ In those years the CEA was the State's Commission on Water and Sanitation (*Comisión Estatal de Agua y Saneamiento*).

quality, social opposition (Figuerola-Neri, 2006). The paradigm has little consideration of budget or profitability. The dams of the past were built in a state-centred economy, where strategic projects had priority in the public budget.

The UDG's paradigm was based on sustainability. It suggested that the city's consumption of water should be analysed first in order to reduce consumption and waste and improve water quality. According to this paradigm, the best project decision should follow three principles: planning, environmental policy and long-term financial feasibility. It also suggested greater collaboration between agencies and government levels and the participation of society at large in decision-making (Figuerola-Neri, 2006).

The participation of Mireya and Liborio was decisive in the technical dialogue between the CEA and the UDG. They were amongst the minority of engineers on the side of the university and its sustainable paradigm. Other academics in engineering avoided confrontation with the CEA. Mireya and Liborio were the ones who solved the "technocratic puzzle" for the other disciplinary teams. The communication of the Arcediano project was "encrypted" in the technocratic language that the water bureaucracy had developed. When asked about the dam, the CEA presented an overwhelming quantity of technical data. Politicians and media then concluded that the decision had to be left to them as the experts. The UDG's committee appeared as another "expert" (in the eyes of the public) that explained the dam in a different way. The reaction of politicians and media was not what the scientist expected. Instead of formulating their own opinion, they kept on thinking that it was an expert-issue and that what they had to do was to choose between one of the two experts (either the CEA or the UDG).

The committee's activities were very demanding for the participating scientists. Mireya and Liborio were increasingly more involved, motivated by a new enthusiasm. In the same way they helped the others to understand the project from the hydrological (Mireya's speciality) and civil engineering (Liborio's speciality) perspectives, the other teams taught them to frame the problem from those of

environmental law, public policy, economy, financial environmental accountability, public health and land planning.

The episode of the Arcediano's UDG committee did not end well. The roundtables did not arrive at shared conclusions. The final report reveals that CEA and UDG kept their initial positions about the dam project. In the final press conference, the general chancellor of the UDG declared that the university was not going to interfere any more and, contrary to the scientists' views, an unspoken approval was given to the Arcediano dam. In those days, the UDG received an extraordinary amount of public budget for a cultural project that it had pursued for a long time. The media reported there had been a trade-off and the UDG received money from the government in exchange for its silence on Arcediano (e.g. Cobián & Reza, 2004; Cobián, 2004). NGOs and social stakeholders that opposed the Arcediano dam felt betrayed by the UDG. The scientists of the committee shared similar feelings and their reaction was the publication of the committee's memoirs (Bravo-Padilla & Figueroa-Neri, 2006) that has become a reference for subsequent environmental social movements.

Mireya and Liborio did not give up on Arcediano. They joined the group led by the counsel of the people from Arcediano who struggled for the project's cancellation and against the displacement of the community. Without any external funding, they have participated in other environmental social causes, too. For instance, they joined the social movement that formed after the death by arsenic poisoning of an 8 year old boy who fell into the Santiago River in 2008 (Acosta-Gurrola & Acosta-Gurrola, 2010). In March 2009 Mireya, Liborio and environmental activists and lawyers founded an NGO, the Mexican Academy of Environmental and Social Sciences²⁸ (Torres, 2009).

At the end of 2009 the government announced the cancellation of the Arcediano project. It argued that the costs had risen beyond the expected²⁹ (Nuñez, 2009).

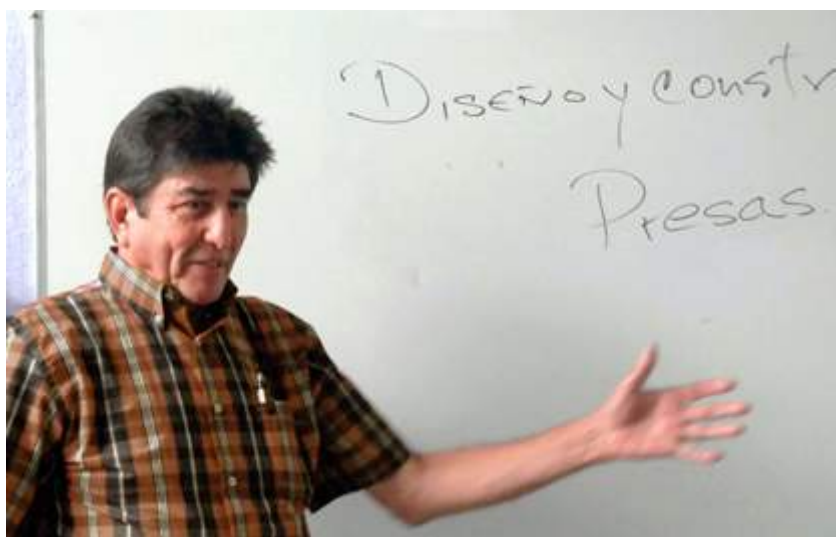
²⁸ *Academia Mexicana de Ciencias Ambientales y Sociales, A.C*

²⁹ In 2003 the local parliament entitled the government to increase the public debt in 6,700 millions pesos (around 550 millions AUD) to build the dam. In 2009 the cost of the dam was calculated as 13,000 millions of pesos. In 6 years, the government spent 700 millions pesos (around 60 millions

Another argument was that the site conditions were not suitable for a dam from a geological perspective. In reality, the state government had lost interest in the Arcediano dam since October 2007, when they decided that the dam wall of El Zapotillo would be raised to 105 m to provide water for Jalisco (Espinoza-Sauceda & Gómez-Godoy, 2012, p. 32) even though it would flood Temaca, Acasico and Palmarejo.

When the project of the Zapotillo dam was launched, the Mexican Academy of Environmental and Social Sciences reacted against it. Their initial arguments were based on the inconsistencies in the distribution's agreement of the Verde River's water between the states of Guanajuato and Jalisco (Reza, 2009). Wherever it is possible, Mireya and Liborio disseminate in a clear and simple way the inaccuracies, inconsistencies and fallacies of the Zapotillo dam project.

Figure 7.9. Liborio Saldaña



Source: Photograph by the author

In 2010 Liborio and three colleagues with wide experience in hydraulic infrastructure (all with previous experience working in the old SRH) called a press conference to present an alternative to the Zapotillo dam (El-Infomador, 2010). This initiative responded to the government's argument about the non-existence of "real"

AUD) in it (Nuñez, 2009). There was no investigation about this failed project or who was accountable for this expenditure. Exchange rate calculated in 11 April 2014, based on www.xe.com

alternatives, i.e. infrastructure projects that could satisfy the required volume of water promptly. Liborio et al. reviewed and updated a dam project called Atengo that had been proposed around 2000. It would be located upstream of the site of Arcediano and would provide water for Guadalajara city. The upstream users of Los Altos would keep on using the Verde River as they do now (El-Infomadoar, 2010). The media sought out the local head of the CONAGUA, Raúl Iglesias, to ask for his opinion about this alternative. He answered:

Suddenly, some recognised technicians say: there, here is Atengo, it is another option for the use of the Verde River. I insist, they are recognised technicians who worked in CONAGUA and some others in the CEA and most of them were in the meeting where we analysed the projects that we saw in the Construction National Chamber some eight or nine years ago. What I say is: why after so long [do they present it]? Why do they say there is another option, after the change [of the dam location] from San Nicolás to El Zapotillo, after Arcediano, after they left the State Government and CONAGUA?

...

Let's figure out if it is a good alternative. I don't discard it, but what I say is that after all the forums, why didn't they point it out [then]? Now we are on our way for the project El Purgatorio;³⁰ we don't have all the engineering for Atengo [Liborio et al.'s project] and an endless list of projects that would delay us another couple of years, supposing that we have [economic] resources for it (El-Infomador, 2010, my translation).

Mireya and Liborio did not hesitate in participating in the movement for Temaca. Mireya considers that this participation is multi-faceted. On the one hand it consists of technical advisory work, particularly for the dialogue with authorities and politicians, such as meetings in the Senate in Mexico City (MAG-Audio). Both Mireya and Liborio have elaborated expert reports for the writs of amparo for protecting the constitutional rights of the people of Temaca.

On the other hand, it is about moral support and companionship, that is, joining them in as many activities as possible. She believes that Temaca's people need to be encouraged to keep their spirits up. In the roundtables between the movement and the CEA, Mireya received good advice from America del Valle, an activist in people's

³⁰ El Purgatorio is the name for a pump sump projected in the area.

land defence: “Support them, tell them they’ve won so they can keep in their struggle” (MAG-Audio). This is not a difficult task, according to Mireya: “You get there [to Temaca], you see them and you are hooked by them” (MAG-Audio). Mireya is delighted to see the leaderships that have emerged in the community. Ordinary people who keep on with their everyday lives whilst defending their town, they have learned to fight for their cause and to support others’ causes too.

I believe the couple has a third kind of contribution to the movement. It is the dissemination of what is happening in Temaca to other audiences. In the syllabus of his lectures Liborio often includes El Zapotillo dam as a case study and also technical visits to the site of El Zapotillo and to Temaca. Mireya writes opinion pieces in newspapers (e.g. Acosta-Gurrola, 2011, 2013), attends media invitations for interviews (e.g. Z3N-2013) and assists at academic events to speak of the case. She has gained many skills to deal with the media, to focus them in the technical argument, to avoid politicised or biased commentaries and to combine the technical-rational arguments with the human side of Temaca.

Figure 7.10. Mireya Acosta



Source: Photograph by Vania Tirado Morales. 2013, Guadalajara, México,

Mireya reflects about the case. She believes it is not government’s capacity of negotiating with society that is at stake. It is the system. Politics and economy allow the powerful to control water; it is corruption and it is also disdain for society. She acknowledges that this not just a local, but a world pattern (MAG-Audio). Mireya is also concerned about the profession of hydrologists in contemporary Mexico; engineers who have hung onto the past are missing the opportunity of being enriched by other perspectives in the understanding and management of water (MAG-Audio).

Mireya and Liborio are not the only ones of their kind. Many scholars from the UDG and other local universities (the Jesuitical university ITESO, for example) are supporting the people of Temaca (and other social movements). I mention some of them who attended my invitation to participate in the fieldwork activities for this thesis:

- Anahí Gómez, social anthropologist, researcher in the Colegio de Jalisco.
- Heliodoro Ochoa, geographer and regional studies expert, researcher in the ITESO.
- Mario López, public affairs and water geopolitics expert, researcher in the ITESO.
- Jorge Gastón, psychologist and sociologist, researcher in the UDG.

I believe that universities in Mexico are fulfilling a very important role in enhancing social participation. Not directly, through their social support policies, but indirectly through academics who adopt these kinds of social commitments. Their actions compensate for, in certain way, the lack of NGOs and resources for the organisation of civil society in Mexico.

Documents

MAG-Audio	ACOSTA Gurrola, Mireya, in Focus Group Workshop [audio recording]. Guadalajara, Jalisco, Mexico, 20 March 2013. Recorder and transcriber: Fabiola Figueroa Neri.
Acosta & Saldaña in Bravo & Figueroa, 2006	ACOSTA Gurrola, Mireya and SALDAÑA Solís, Liborio, “Análisis de las posibilidades de almacenamientos superficiales. El método sistemático, la mejor alternativa para una óptima decisión, in Bravo-Padilla & Figueroa-Neri, 2006, pp. 159-168 Translator: Fabiola Figueroa Neri
Acosta & Acosta, 2010	ACOSTA Gurrola, Mireya and ACOSTA Gurrola, Diana, “Dos años más sin soluciones”, in <i>Gaceta Universitaria</i> , Issue 602, 8 may 2010, Guadalajara, Mexico, p. 6. Translator: Fabiola Figueroa Neri
Acosta-Gurrola, 2011	ACOSTA Gurrola, Mireya, “Lo que no entendemos de El Zapotillo”, in <i>La Jornada Jalisco</i> , 2 April 2011, Guadalajara, Mexico. Translator: Fabiola Figueroa Neri
Acosta-Gurrola, 2013	ACOSTA Gurrola, Mireya, “El reto de la Ingeniería Civil”, in <i>La Jornada Jalisco</i> , 25 May 2013, Guadalajara, Mexico. Translator: Fabiola Figueroa Neri
Z3N-2013	Interview to Mireya Acosta Gurrola, in <i>Zona 3 Noticias – Primera emisión</i> . Radio presenter: Pablo Lemus. 91.5 FM, 3 Octubre 2013. Available in: http://www.youtube.com/watch?v=XEO8qCNBqlw , http://www.youtube.com/watch?v=hXLkpeYeZW0 and http://www.youtube.com/watch?v=Ui1gvxotXog , v.i. 7 April 2014. Transcriber and translator: Fabiola Figueroa Neri.

7.7. Concluding remarks

The oral histories of this chapter presented different personal situations that converge in the resistance movement for Temaca and produce different profiles of environmental citizens. Each history is framed in a particular context within the complexity of Mexico in social, political and economic terms. These new environmental citizens are not only protagonists in the case of the Zapotillo dam, they are also protagonists in different social issues:

- Relationship between Catholic Church, state and community, in the case of Father Gabriel.
- Sociocultural gaps between rural and urban communities and gender issues, in the case of María Félix.
- Migration of families from rural communities to the cities to provide the young with access to education and an expected rise in the quality of life, in the case of Emma.
- Economic migration to US, in the case of Martín.
- The left-oriented “intellectual [educated] class” that is shaped by public universities and the difficulties for social advocacy, in the case of Claudia and Guadalupe.
- Responses of technology professionals (and technocracy) to new environmental paradigms, in the case of Mireya and Liborio.

In a country with limited space and scant resources for civil society and activism, these citizens have found common ground in the dam case. They are united by their efforts in advocating for the defence of Temaca, allowing them to participate in

environmental networks and to support other social movements. They also perform a role as environmental educators in their diverse realms.

These citizens have adopted environmental discourses that, despite the particularities, share a common frame: sustainable development with an emphasis on environmental conservation. In other words, if the concept of “sustainable development” entails two contradictory aims, namely, environmental conservation and economic growth (as explored in Chapter 3), these citizens adopt the side of environmental conservation, the reduction of social inequality and the defence of environmental rights of minorities and the environmentally affected. They are subjects that have adopted a strong commitment to the environment, the responsibility of advocating for sustainability, and the defence of environmental rights.

Their actions and beliefs have been enabled, to some extent, by the transition to a post-authoritarian state, having embraced democratic discourses and attitudes. However, in different ways the people whose histories were reviewed acknowledge the continuing predominance of the state and the government’s authoritarian practices. They draw on the opening of democracy to contest abuses of power or process that have occurred in the case of the Zapotillo dam. In the past anti-governmental and subversive attitudes in citizens were common within social movements. In the analysed case, activists were more likely to frame their discourses in democracy and use the democratic tools that the political transition created, such as freedoms of speech and information, and transparency and accountability, in addition to the tools brought in by globalisation and the technology and information revolution.

The case of the Zapotillo, analysed from the perspective of citizens’ oral histories, provides examples of new forms of social networks in which the diversity of individuals and their respective types of knowledge reduces the gap between community actors and experts. This interaction has helped this movement of environmentally affected people to frame their demands in a language that is more

comprehensible for the technocracy that promotes the dam. They have also learned to take their message across to the media and public opinion.

Working in teams (with different kinds of knowledge) and participating in social networks aimed at environmental and social issues may contribute in the long term to strengthen the social fabric and, consequently, to help social actors resist the authoritarian tendencies of post-authoritarian states. The profiles above provide hopeful examples of how the extra-territorial networks forming in post-authoritarian Mexico are changing the nature of the environmental conflicts and providing new opportunities for citizenship.

Chapter 8. Conclusions

My interest in environmental citizenship in Mexico arose from my observations of new situations of social resistance around large dam projects, such as the organisation of environmental movements and networks (at different levels), prolonged conflicts between communities and government and the cancellation of dam projects triggered by social opposition. They were “new” situations because during the 20th century mega dams were built on large scales, being keystones of development policies, and the state controlled social conflicts and avoided opposition and resistance from those affected by the dams.

I have shown how new forms of environmental citizenship have emerged in Mexico and their ongoing contributions to better environmental governance. “Better” in the sense of a collaborative governance (i.e. based on the involvement of social actors) that works towards improved socio-environmental outcomes. Analysing environmental citizenship and governance in Mexico is important because it explores a case of democratic transition involving a post-authoritarian state that is representative of many countries in Latin America. This thesis has contended that research on environmental citizenship must explore democratic quality and its tensions with oppressive practices in post-authoritarian contexts. While I have only focused on one country, and focused on one case study within that country, there are lessons here that translate to other contexts.

Environmental citizenship was analysed at multiple levels: from state and national environmental discourse to individuals acting out new environmental identities. This multi-level analysis has showed that environmental citizenship is not a straightforward phenomenon. It is multifaceted, complex and depends on the scale of analysis. The transition to democracy from authoritarianism in Mexico has been slow and heterogeneous. It has produced different levels of democratic quality in different geographic contexts and, in some of them, there seems to exist the risk of democratic regression (i.e. a return to authoritarianism). This thesis indicates that research on environmental citizenship must be aware of this multiplicity of situations and work

with different scales and spaces of analysis, given the fact that democracy is not entirely consolidated.

Countries with incomplete and heterogeneous democratic consolidation challenge the scholarship on environmental citizenship. Research has mainly addressed developed countries, which have consolidated democracies, fewer socio-economic problems and, in many ways, less socio-political complexity. In Latin American countries, social inequality creates different classes in which democracy is experienced differently. Consequently, there are different classes of citizens because, despite the national frame of citizenry (that establishes rights and obligations), there is unequal access to justice, state benefits and public participation. The transition from authoritarianism to democracy also works in a differentiated way, with marginalised social groups likely to remain targets of authoritarian practices. This has to do with historically asymmetric power structures and the state's processes of slow violence.

Through the case of the resistance movement for Temacapulín, this thesis has shown that environmental citizenship works in different ways and spaces in Mexico. In each site of contestation, there are diverse types of actors, environmental discourses and agendas that have shaped environmental citizenship in different ways. Table 8.1 summarises this analysis.

Table 8.1 Actors, agendas and results of environmental citizenship in different sites of contestation

Site	Arena of debate	Post-authoritarian context	Actors	Agendas	Results	Effects on environmental citizenship
Constitution	The constitution is an arena of public debate that shapes the set of (legitimate) collective aspirations Stakeholders compete to posit their discourses as the state's legitimate discourse	Major transformations in the political system's practices that ended the "imperial presidency"	Environmentalists	Establish a new environmental governance, based on sustainability, and environmental rights for citizens	Introduction of environmental rights Establishment of "sustainability" as a characteristic of national development	It establishes the constitutional framework of a new citizenship that is entitled to: - Environmental rights (liberal approach of citizenship) - Participate in a democratic national planning system - Demand sustainable development
		Democratic transition Shift to neoliberalism	Water technocracy	Keep the status quo of the state's control of water	The property of water, defined by a constructed political geography (article 27), was kept	
Federal Acts and Institutions	Government functions are debated at this level. The competition of different discourses shapes regulations and bureaucracy	A ministry on the environment (SEMARNAT) and diverse bureaux were created which comprised a new environmental bureaucracy Under a neoliberal approach, CONAGUA was created as a semi-	SEMARNAT Environmental groups CONAGUA	A new environmental governance, based on sustainable development approaches Keep the status quo (its role of "hydraulic leviathan")	Regulations and instruments established in the EEEPA. Water is defined under a ecosystemic approach of sustainability CONAGUA's discourses were "green washed", i.e. environmental rhetoric	Environmental discourses from federal legislation (EEEEPA) and environmental bureaux have shaped citizenship Citizens have adopted environmental discourses based on sustainability and demand the enforcement of regulations

Site	Arena of debate	Post-authoritarian context	Actors	Agendas	Results	Effects on environmental citizenship
		autonomous bureau, which contributed to consolidate its power and role as "hydraulic leviathan"			was adapted to "looked like" environmental The NWA separated operative regulations on water from environmental discourses. The "hydraulic leviathan" was kept	"Green washed" discourse of CONAGUA hinders social negotiations and citizens' participation in water issues
Social and political actors	Civil society is shaped by the participation of multiple social and political actors gathered around environmental issues and the support to marginalised groups (environmental victims)	Democratic transition and global communication technologies have empowered civil society Environmental social movements have flourished and consolidated a space for social action	NGOs Activists Academics and professionals Environmental organisations and networks	Public participation in environmental decisions and policies Dissemination of environmental discourses to other social sectors Advocacy for the environment and the defence of minorities and environmentally affected	New spaces of dialogue between authorities and civil society have been open Social actors participate as technical supporters of social movements for the defence of the environmentally affected. They help to close the gap between technocratic and local knowledge	Environmental discourses of social actors have helped to shape environmental discourses of minorities, victims and environmentally affected Environmental citizens have access to new forms and tools for resisting and fighting for their objectives

Site	Arena of debate	Post-authoritarian context	Actors	Agendas	Results	Effects on environmental citizenship
Community	<p>The community has a traditional life based on its beliefs and customs. It is a community in a certain way "isolated" from the national context and thus it has developed a sense of autonomy</p> <p>The community is bound to its natural environment, particularly the river, which has been increasingly deteriorated by external factors (sand-mining) and the establishment of modern hydraulic infrastructure to provide water services to its town (and other remote human settlements)</p>	<p>The transition to a post-authoritarian state is practically irrelevant for the community</p> <p>They have been historically marginalised from development and are victims of slow violence by the state</p> <p>Now the project of the Zapotillo dam threatens them and they have become an environmentally affected community</p>	<p>Permanent residents</p> <p>Absent offspring</p>	<p>Their objectives are: saving their town from flooding and keeping their traditional life as it was before the announcement of the dam project</p>	<p>Rather than results, there are consequences of the disturbance of the community's life:</p> <ul style="list-style-type: none"> - They live under constant pressure and anxiety - The offer to negotiate the sale of properties has divided the community - They are a community pursuing resistance 	<p>The community identifies a past in which members had a harmonic relationship with the environment. Within their isolated community life members have identifiable roles as environmental citizens</p> <p>Currently, environmental deterioration has affected the sense of citizenship. Responsibilities are not identifiable and affected their right to enjoy the environment</p> <p>On the other hand, they are now protagonists of a resistance social movement and have adopted environmental discourses to defend their environmental rights</p>

Site	Arena of debate	Post-authoritarian context	Actors	Agendas	Results	Effects on environmental citizenship
Individuals	<p>Diverse histories and backgrounds</p> <p>Individuals experience different sides of social-economic reality and is affected in several ways by changes in the national context</p>	<p>In the post-authoritarian state, individuals have more tools and access to collective action and social networks</p> <p>Individuals have adopted democratic and environmental discourses</p>	Non applicable	<p>Apart from their individual agendas, they share the resistance movement's agenda and the agenda of environmental networks that they have joined</p> <p>A deeper agenda is the promotion of new water governance, based on a basin approach and social collaboration</p>	<p>The resistance social movement has been strengthened by the different kinds of knowledge and resources from individual contributions</p> <p>Environmental networking creates common discourses and sets precedents for future water conflicts (particularly in the case of large dams)</p>	<p>New and diverse profiles of environmental citizens that are socially disseminated (through environmental networks and activism)</p> <p>Through activities of dissemination and training these citizens are shaping future environmental citizenship</p>

Source: Elaborated by the author

Table 8.1 allows a general look into different influences and manifestations of environmental citizenship. The interaction of multiple actors across multiple levels is producing new forms of environmental citizenship in post-authoritarian Mexico. The key findings include:

1. The state has adopted an environmental discourse of sustainability and grants environmental rights to citizens. This discourse works at a general level, at a constitutional level and within environmental legislation (the EEEPA) and the bureaucracy.
2. When it comes to the particular topic of water, the prevalence of the “hydraulic leviathan” (the strong control of the state on water through the technocratic elite, CONAGUA) generates contested situations regarding water management and infrastructure projects. Environmental conflicts around large dam projects entail the competition of traditional discourses that have been green-washed and are paired with authoritarian practices, versus environmental discourses of the environmentally affected and their supporters from civil society that have been shaped, in a certain way, by newly legitimate environmental discourses.
3. The democratic transition and the global revolution of technology and communication have favoured the empowerment of a thriving civil society. Environmental social movements and networks have flourished and contributed to shape environmental discourses and citizenship based on the defence of rights, particularly the rights of minorities and environmental victims.
4. Marginalised groups that are historical victims of slow violence by the authoritarian (and now post-authoritarian) state, have greater opportunities for resistance because of the new social fabric that is being built by environmental networks, civil society organisations and new environmental citizens. These groups are organising social movements that are framed and legitimised by broader environmental discourses.

5. Environmental conflicts that involved marginalised communities and victims of slow violence reveal that environmental citizenship might not be “new” at a community level. The case of Temaca is a representative case of a close relationship between a community and the environment, built around local knowledge and traditional ways of living. Traditional relations between members of the community and the local environment represent a type of environmental citizenship. These communities have been marginalised from the benefits of development and received many of its negative impacts such as increasing environmental degradation. Consequently, their traditional roles in interacting with the environment are challenged.
6. Social complexity and heterogeneity of Mexico (and Latin American countries generally) generates different kinds of citizens. Each one experiences different social problems and phenomena and possesses different kinds of knowledge. Environmental social movements are defending the marginalised and draw on increasingly common environmental discourses and tools for environmental social action.

I conclude this thesis with an optimistic and reserved comment. Optimistic because the research has allowed me to appreciate how forms of new environmental citizenship are being built in Mexico. Diversity and collaboration are strengthening social networks and the broader social fabric to create opportunities to make the environmentally affected less vulnerable. In my opinion, this is a positive and irreversible social change. This new environmental citizenship embraces democratic discourses and methods to seek dialogue with authorities and resist authoritarian practices and abuses. In the post-authoritarian state, conflicts around the environment and development have been kept within a relative rule of law, compared to the brutal violence exerted by the state in the past. The prolonged conflicts and government failures around large dams in Mexico is creating long-term interactions between water authorities and society and thus learning can be expected from both sides. Sooner or later, I believe, the “hydraulic leviathan” must be truly receptive of environmental discourses.

My reserved conclusion, though, reflects on the history of Latin America, which shows that prolonged democratic transitions do not always end in democratic consolidations. Our history as independent nations has rather been a history of authoritarian regressions that evolve and adapt to new times. Our societies are organised in a way that allows power concentration, corruption, elitism and inequality that may result in new forms of authoritarianism and jeopardise the development of environmental citizenship. Hopefully this thesis is one small contribution to the struggles and efforts of all those who keep on opening new spaces of environmental citizenship, despite all kinds of adversities.

References

- Aceves-Ávila, C. (2003). *Bases fundamentales del derecho ambiental mexicano* (1a. ed., p. 540). México, D.F.: Porrúa.
- Acosta-Gurrola, M. (2011, April 2). Lo que no entendemos de El Zapotillo. *La Jornada Jalisco*. Guadalajara, México. Retrieved from <http://www1.lajornadaguerrero.com.mx/2011/04/02/index.php?section=opinion&article=008a1pol>
- Acosta-Gurrola, M. (2013, May 25). El reto de la ingeniería civil. *La Jornada Jalisco*. Guadalajara, México. Retrieved from <http://www.lajornadajalisco.com.mx/2013/05/25/el-reto-de-la-ingenieria-civil/>
- Acosta-Gurrola, M., & Acosta-Gurrola, D. (2010, February 8). Dos años más sin soluciones. *Gaceta Universitaria (UdG)*, p. 6. Guadalajara, México. Retrieved from <http://www.gaceta.udg.mx/Hemeroteca/paginas/602/602-COT 6.pdf>
- Alba, A. (Ed.). (2012). *Anuario de migración y remesas Mexico 2013* (p. 112). Mexico D.F.: Fundación BBVA Bancomer - CONAPO. Retrieved from https://www.fundacionbbvabancomer.org/imagenes/Docs/Anuario_Migracion_y_Remesas_2013.pdf
- AOD. (2004). *Australian Oxford Dictionary* (2nd ed.). Oxford University Press.
- Aristegui-Noticias. (2012, October 1). Planea Peña Nieto crear seis secretarías nuevas. *Aristegui Noticias*. México, D.F. Retrieved from <http://aristeguinoicias.com/0110/mexico/planea-epn-crear-seis-secretarias-nuevas/>
- Arredondo, P., Fregoso, G., & Trejo, R. (1991). *Así se calló el sistema: comunicación y elecciones en 1988* (p. 268). Guadalajara, México: Universidad de Guadalajara.

- Arreguín, F., Herrera, C., Marengo, H., & Paz-Soldán, G. (Eds.). (1999). *El desarrollo de las presas en México. Memorias. Avances en Hidráulica 5* (p. 224). México, D.F.: Asociación Mexicana de Hidráulica - Instituto Mexicano de Tecnologías del Agua.
- Arrojo, P. (2013). Retos de cambio en la gestión de aguas de Jalisco. In S. Peniche, M. Romero, J.-H. Cortés, F. González, M. Guzmán, E. Macías, & G. Zavala (Eds.), *Gobernanza del agua en las ciudades* (pp. 21–50). Guadalajara, México: CUCEA-UDG.
- ASF. (2014). Comisión Nacional del Agua. Proyecto de Abastecimiento de Agua Potable Zapotillo para la Ciudad de León, Guanajuato. Auditoría de Inversiones Físicas: 12-0-16B00-04-0339. In *Informe del Resultado de la Fiscalización Superior de la Cuenta Pública 2012*. Mexico D.F.: Auditoría Superior de la Federación (ASF).
- Aslin, H.J. & Lockie, S. eds., 2013. *Engaged Environmental Citizenship*, Darwin, Australia: Charles Darwin University Press.
- Azuela, A. (2006). *Visionarios y pragmáticos. Una aproximación sociológica al derecho ambiental* (1a. ed., p. 554). México, D.F.: Universidad Nacional Autónoma de México - Fontamara.
- Baettig, M. B., Brander, S., & Imboden, D. M. (2008). Measuring countries' cooperation within the international climate change regime. *Environmental Science & Policy*, 11(6), 478–489. doi:10.1016/j.envsci.2008.04.003
- Barabas, A., & Bartolomé, M. (1973). Hydraulic Development and Etnocide: The Mazatec and Chinantec People of Oaxaca, México. In *International Work Group of Indigenous Affairs*. Copenhagen, Denmark.
- Barry, J., 1999. *Rethinking Green Politics*, London: SAGE Publications.
- Barry, J., 2006. Resistance is Fertile: From Environmental to Sustainability Citizenship. In A. Dobson & D. Bell, eds. *Environmental Citizenship*. London: The MIT Press, pp. 21–48.

- Bartolomé, M. (1992). Presas y relocalizaciones de indígenas en América Latina. *Alteridades*, 2(4), 17–28. Retrieved from <http://redalyc.uaemex.mx/redalyc/src/inicio/ArtPdfRed.jsp?iCve=74711363002>
- Bartolomé, M., & Barabas, A. (1990). *La Presa Cerro de Oro y el Ingeniero el Gran Dios: relocalización y etnocidio chinanteco en México* (2 Tomos, C.). México, D.F.: Instituto Nacional Indigenista-Consejo Nacional Para la Cultura y las Artes.
- Bell, D.R., 2005. Liberal Environmental Citizenship. *Environmental Politics*, 14(2), pp.179–194. Available at: <http://www.tandfonline.com/doi/abs/10.1080/09644010500054863> [Accessed December 17, 2013].
- Bravo-Padilla, T., & Figueroa-Neri, F. (Eds.). (2006). *El Proyecto Arcediano y el abastecimiento de agua potable de la Zona Conurbada de Guadalajara. Análisis de la Universidad de Guadalajara* (p. 278). Guadalajara, México: Universidad de Guadalajara.
- Bustillos-Roqueñi, J., & Benavides-Zapién, G. (2000). *Concierto ambiental en el Congreso de la Unión. Memoria del proceso legislativo en materia ambiental 1994-2000* (1st. ed., p. 155). México, D.F.: Programa de las Naciones Unidas para el Desarrollo (PNUD) - Secretaría de Medio Ambiente Recursos Naturales y Pesca (SEMARNAP). Retrieved from http://www2.ine.gob.mx/publicaciones/consultaPublicacion.html?id_pub=384
- Caldera-Ortega, A. (2010). Procesos políticos, instituciones e ideas en la gestión del agua: una propuesta desde el neoinstitucionalismo discursivo. In D. Murillo & J. Palerm (Eds.), *Primer Congreso Red de Investigadores Sociales Sobre Agua*. Jiutepec, Morelos: Instituto Mexicano de Tecnología del Agua. Retrieved from <http://redissa.hostei.com/rissa/Caldera-Ortega.pdf>
- Cámara-de-Diputados. (1998, December 15). LVII Legislatura, Año II, Sesión No. 47. *Diario de Los Debates*, pp. 4554–4564. Mexico D.F. Retrieved from <http://cronica.diputados.gob.mx/DDebate/57/2do/1P/Ord/19981215.html>

- Cámara-de-Diputados. (2011a, April 27). LXI Legislatura, Año II, Sesión No. 29. *Diario de Los Debates*. Mexico D.F. Retrieved from <http://cronica.diputados.gob.mx/DDEbates/61/2do/2P/Ord/abr/00L61A2P229.html>
- Cámara-de-Diputados. (2011b, April 28). LXI Legislatura, Año II, Sesión No. 30. *Diario de Los Debates*. Mexico D.F.
- Cámara-de-Senadores. (2011, September 29). LXI Legislatura, Primer Periodo Ordinario, Diario 9. *Diario de Los Debates*. Mexico D.F.
- Cárdenas, M. (2013, May 27). Un genocidio construcción de Presa “El Zapotillo”, consideran. *El Diario de Guadalajara*. Guadalajara, México. Retrieved from <http://eldiariodeguadalajara.com/tag/genocidio-construccion-presa-el-zapotillo/> [Accessed April 19, 2014].
- Carmona-Lara, M. del C. (2002). El derecho a un medio ambiente adecuado en México. Evolución, avances y perspectivas. In M. Carbonell (Ed.), *Derechos Fundamentales y Estado. Memoria del VII Congreso Iberoamericano de Derecho Constitucional* (pp. 221–242). México, D.F.: Universidad Nacional Autónoma de México.
- Carpizo, J. (2004). *El presidencialismo mexicano* (p. 282). México, D.F.: Siglo XXI Editores.
- Carpizo, J. (2011). La reforma constitucional en México. Procedimiento y Realidad. *Boletín Mexicano de Derecho Comparado*, 131, 543–598. Retrieved from <http://biblio.juridicas.unam.mx/revista/pdf/DerechoComparado/131/art/art3.pdf>
- Carranza-Angel, S. (2012). Nuevo Acueducto Chapala-Guadalajara 2012. Area Metropolitana de Guadalajara. Guadalajara: SIAPA (Sistema Intermunicipal de Agua Potable y Alcantarillado). Retrieved from http://www.ceajalisco.gob.mx/caa/docs/2012/foro_agua/15_acueducto_chapala_gdl_salvador_carranza_siapa.pdf

- Casillas-Báez, M. A., Hernández-López, J.-J., & González-Pérez, C. (2010). El manejo del agua en Jalisco: un asunto de poder. In M.-A. Casillas-Báez & Espinoza-Sau (Eds.), *Los Ojos del Mundo están Puestos en Temaca* (pp. 7–145). León, Gto, México: Centro de Orientación y Asesoría de Pueblos Indígenas AC - Comité Salvemos Temaca – Colectivo COA – IMDEC.
- Casillas, M.-A., & Espinoza, G. (Eds.). (2010). *Los ojos del mundo están puestos en Temaca* (p. 228). León, Gto, México: Centro de Orientación y Asesoría de Pueblos Indígenas AC - Comité Salvemos Temaca – Colectivo COA – IMDEC.
- Castro, J. E. (1995). Decentralization and Modernization in Mexico: The Management of Water Services. *Natural Resources Journal*, 35(3), 461–488.
- Chávez-Cortés, M. M. (2006). Distintas vías para abordar la sustentabilidad: una exploración del camino seguido por el gobierno mexicano. *Argumentos* (UAM-X), 19(51), 173–212. Retrieved from <http://redalyc.uaemex.mx/redalyc/src/inicio/ArtPdfRed.jsp?iCve=59505107>
- Chávez-Ogazón, V. M. (2012, May 10). Balearon y amagaron al sacerdote y al abogado de Temacapulín. *El Occidental*. Guadalajara, México. Retrieved from <http://www.oem.com.mx/eloccidental/notas/n2536589.htm>
- Clausen, J., & Contreras, S. (2010). Socio-environmental assessments for large hydro projects in Mexico : The outcomes and complexities of introducing interdisciplinary approaches to integrate cumulative effects , climate change and public participation in the early stages. In *Hydro 2010* (p. 5).
- Cobián, F. (2004, December 5). Cede la UdeG. *Proceso-Jalisco*, pp. X–XI. Guadalajara, México.
- Cobián, F., & Reza, G. (2004, December 19). Arcediano: la magia del dinero. *Proceso-Jalisco*, p. V. Guadalajara, México.
- COEPO. (2008). Análisis Sociodemográfico para la Zona Metropolitana de Guadalajara. Guadalajara, México: Consejo Estatal de Población, Jalisco.

Retrieved from

<http://coepo.app.jalisco.gob.mx/PDF/Analisis sociodemograficos/Zmg.pdf>

COEPO. (2011). Región 03 Altos Sur Análisis Sociodemográfico. Guadalajara, México: Consejo Estatal de Población, Jalisco. Retrieved from <http://www.iiég.gob.mx/contenido/PoblacionVivienda/03RegionAltosSur2010.pdf>

CONACULTA. (2006). *Encuesta Nacional de Lectura* (p. 258). México, D.F.: CONACULTA (Consejo Nacional para la Lectura y las Artes).

CONAGUA. (2010). *Estadísticas del Agua en México, edición 2010* (p. 257). México, D.F.

CONAGUA. (2010). Tabla maestra de presas principales. In *Estadísticas del Agua en México, edición 2010*. Mexico D.F.: Secretaría de Medio Ambiente y Recursos Naturales.

CONAGUA. (2011). Proyecto “El Zapotillo – Los Altos de Jalisco – León, Guanajuato”. Sistema de Bombeo “Purgatorio - Arcediano.” Mexico D.F.: Comisión Nacional del Agua. Retrieved from <http://www.conagua.gob.mx/CONAGUA07/Noticias/PTPI4.pdf>

CONAGUA. (2012). *Libro Blanco CONAGUA-03 Proyecto presa y acueducto El Zapotillo* (p. 77). Mexico D.F.: Comisión Nacional del Agua. Retrieved from <http://www.conagua.gob.mx/conagua07/contenido/Documentos/LIBROS BLANCOS/CONAGUA-03 Proyecto presa y acueducto El Zapotillo.pdf>

CONAGUA. (2013). *Estadísticas del Agua en México, edición 2013* (p. 166). Mexico D.F.: Comisión Nacional del Agua - Secretaría de Medio Ambiente y Recursos Naturales. Retrieved from <http://www.conagua.gob.mx/CONAGUA07/Noticias/SGP-2-14Web.pdf>

CONAGUA. (2014a). *El agua que mueve a México* (p. 288). Mexico D.F.: Comisión Nacional del Agua. Retrieved from <http://www.conagua.gob.mx/CONAGUA07/Campania/CGCCA-1-14.pdf>

- CONAGUA. (2014b). Strategic Projects. Mexico D.F.: Comisión Nacional del Agua.
Retrieved from
<http://www.conagua.gob.mx/english07/publications/StrategicProjects.pdf>
- Concha-Cantú, H. A., Fix-Fierro, H., Flores, J., & Valadés, D. (2004). *Cultura de la Constitución en México. Una encuesta nacional de actitudes, percepciones y valores*. México, D.F.: Universidad Nacional Autónoma de México.
- Connelly, J., 2006. The Virtues of Environmental Citizenship. In A. Dobson & D. Bell, eds. *Environmental Citizenship*. London: The MIT Press, pp. 49–73.
- COPLADE. (n.d.). Plan Regional de Desarrollo 2030. Región 03 Altos Sur. Guadalajara: Gobierno del Estado de Jalisco.
- Cossio-Diaz, J. R. (1995). Constitutional Framework for Water Regulation in Mexico. *Natural Resources Journal*, 35(3), 489–500. Retrieved from
http://heinonline.org/HOL/Page?handle=hein.journals/narj35&div=29&g_sent=1&collection=journals
- Covarrubias, J. (2009, February 10). Remueven al padre Gabriel Espinosa , solidario con la resistencia de Temacapulín. *La Jornada Michoacán*. Morelia, México.
Retrieved from
<http://www1.lajornadamichoacan.com.mx/2009/02/10/index.php?section=politica&article=011n1pol>
- Covarrubias, J. (2010a, May 24). Pese a “ interrupciones ”, terminan rezo para alejar amenaza de El Zapotillo. *La Jornada Michoacán*. Morelia, México. Retrieved from
<http://www1.lajornadamichoacan.com.mx/2010/05/24/index.php?section=politica&article=004n2pol>
- Covarrubias, J. (2010b, November 16). La lucha de Temacapulín sería más fácil con la ayuda de la Iglesia : Gabriel Espinosa. *La Jornada Guerrero*. Chilpancingo, Mexico. Retrieved from
<http://www1.lajornadaguerrero.com.mx/2010/11/16/index.php?section=politica&article=007n1pol>

- Covarrubias, J. (2012, February 12). Bola de mentirosos , los que promueven El Zapotillo , dice el padre Íñiguez. *La Jornada Jalisco*. Guadalajara, México. Retrieved from <http://www.lajornadajalisco.com.mx/2012/02/13/bola-de-mentirosos-los-que-promueven-el-zapotillo-dice-el-padre-iniguez/>
- De-Mente, B.-L. (1996). *There's a Word for It in Mexico* (p. 336). Lincoln Wood, Illinois: NTC Publishing Group.
- Del-Castillo, A. (2010, November 6). Temacapulín, del Apocalipsis al Diluvio. *Sitio de Agustín Del Castillo*. Guadalajara, México. Retrieved from <http://www.agustindelcastillo.com/2010/11/temacapulin-del-apocalipsis-al-diluvio.html>
- Del-Castillo, A. (2014, August 19). Tercera suspensión definitiva contra El Zapotillo. *Milenio*. Guadalajara, México. Retrieved from http://www.milenio.com/region/Tercera-suspension-definitiva-Zapotillo_0_356964450.html
- Delgado-Rodríguez, E.-S. (2012). *Temacapulín despojo y resistencia*. Universidad de Guadalajara.
- Dobson, A. & Bell, D. eds., 2006. *Environmental Citizenship*, London: The MIT Press.
- Dobson, A. & Valencia Sáiz, Á., 2005. Introduction. *Environmental Politics*, 14(2), pp.157–162. Available at: <http://www.tandfonline.com/doi/abs/10.1080/09644010500054822> [Accessed February 12, 2014].
- Dobson, A. & Valencia-Sáiz, Á. eds., 2006. *Citizenship, Environment, Economy*, London: Routledge.
- Dobson, A., 2005. Ecological Citizenship. In J. S. Dryzek & D. Schlosberg, eds. *Debating the Earth. The Environmental Politics Reader*. London: Oxford University Press, pp. 596–607.

- Drevenšek, M., 2006. Negotiation as the Driving Force of Environmental Citizenship. In A. Dobson & A. Valencia Sáiz, eds. *Citizenship, Environment, Economy*. London: Routledge, pp. 71–83.
- Dryzek, J. S. (1997). *The Politics of the Earth. Environmental Discourses* (p. 220). New York, US: Oxford University Press.
- Eckersley, R., 2004. *The Green State. Rethinking Democracy and Sovereignty*, Cambridge, US: Massachusetts Institute of Technology.
- El-Economista. (2012, September 17). Peña Nieto prevé nuevas secretarías. *El Economista*. México, D.F. Retrieved from <http://eleconomista.com.mx/sociedad/2012/10/01/pena-nieto-preve-nuevas-secretarias>
- El-Informador. (2010, March 24). Sube más de dos mil MDP costo de El Zapotillo. *El Informador*. Guadalajara, México. Retrieved from <http://www.informador.com.mx/jalisco/2010/188132/6/sube-mas-de-dos-mil-mdp-costo-de-el-zapotillo.htm>
- El-Informador. (2010, March 31). Proponen otra opción para dotar de agua a la ZMG. *El Informador*. Guadalajara, México. Retrieved from <http://www.informador.com.mx/jalisco/2010/190008/6/proponen-otra-opcion-para-dotar-de-agua-a-la-zmg.htm>
- El-Informador. (2014a, April 19). Se pasan la “bolita” para sancionar a los que desperdician agua. *El Informador*. Guadalajara, México. Retrieved from <http://www.informador.com.mx/jalisco/2014/523861/6/se-pasan-la-bolita-para-sancionar-a-los-que-desperdician-agua.htm>
- El-Informador. (2014b, August 7). Avanza El Zapotillo a pesar de amparos Pregunta de Jalisco. *El Informador*. Guadalajara, México. Retrieved from <http://www.informador.com.mx/jalisco/2014/542337/6/avanza-el-zapotillo-a-pesar-de-amparos.htm>

- Escobar, C. (2007). Extraterritorial Political Rights and Dual Citizenship in Latin America. *Latin American Research Review*, 42(3), 43–75.
- Espinoza-Sauceda, G. (2012, April 22). Temacapulín y Talicoyunque : un plan de reubicación fallido. *Contralínea*. México, D.F. Retrieved from <http://contralineainfo.com/archivo-revista/index.php/2012/04/22/temacapulin-talicoyunque-plan-de-reubicacion-fallido/>
- Espinoza-Sauceda, G., & Gómez-Godoy, C. (2012). *La lucha contra la presa El Zapotillo sigue viva* (p. 88). Guadalajara, México: Taller La Casa del Mago.
- Feindt, P. H., & Oels, A. (2005). Does discourse matter? Discourse analysis in environmental policy making. *Journal of Environmental Policy & Planning*, 7(3), 161–173. doi:10.1080/15239080500339638
- Figueroa-Neri, F. (2006). Presentación del Modelo. In Bravo, Tonatiuh & Figueroa F. (Ed.), *El Proyecto Arcediano y el abastecimiento de agua potable de la Zona Conurbada de Guadalajara. Análisis de la Universidad de Guadalajara* (pp. 101–112). Guadalajara, México: Universidad de Guadalajara.
- Figueroa, A. (2013a). Gestión pública ambiental y rendición de cuentas en México: la incertidumbre de nuestro futuro. In V. Mendezcarlo, A. Figueroa, & V. Torre (Eds.), *Políticas Públicas, gestión ambiental y derechos humanos: Una visión de los nuevos desafíos en México* (pp. 247–267). México: Porrúa Print.
- Figueroa, A. (2013b). *Rendición de Cuentas Hacendaria* (p. 24). Mexico D.F.: Red por la Rendición de Cuentas (CIDE). Retrieved from <http://rendiciondecuentas.org.mx/cuadernillo-rendicion-de-cuentas-hacendaria-en-mexico/>
- Fischer, F., & Hajer, M. (Eds.). (1999). *Living With Nature. Environmental Politics as Cultural Discourse* (p. 269). New York, US: Oxford University Press.
- Fischer, F., 2000. *Citizens, Experts and the Environment. The politics of local knowledge*, London: Duke University Press.

- FitzGerald, D. (2000). *Negotiating extra-territorial citizenship: Mexican migration and the transnational politics of community* (Monograph No. 2) (p. 152q). San Diego, USA. Retrieved from <http://escholarship.org/uc/item/9pd111jx>
- Flores-Macías, G. (2013). Mexico's 2012 Elections: The Return of the PRI. *Journal of Democracy*, 24(1), 128–141. doi:10.1353/jod.2013.0006
- Flynn, R., Bellaby, P. & Ricci, M., 2008. Environmental citizenship and public attitudes to hydrogen energy technologies. *Environmental Politics*, 17(5), pp.766–783. Available at: <http://www.tandfonline.com/doi/abs/10.1080/09644010802421539> [Accessed December 17, 2013].
- Fox, V. (2004). 4o. *Informe de Gobierno*. México, D.F. Retrieved from <http://cuarto.informe.fox.presidencia.gob.mx/>
- Fuentes-Molinar, O. (1983). *Las épocas de la universidad mexicana. Cuadernos Políticos*, (36), 47–55. Retrieved from <http://www.cuadernospoliticos.unam.mx/cuadernos/contenido/CP.36/CP.36.6.OlacFuentesMolinar.pdf>
- Fuentes-Molinar, O. (1988). *Universidad y democracia . La mirada hacia la izquierda. Cuadernos Políticos*, (53), 4–18. Retrieved from <http://www.cuadernospoliticos.unam.mx/cuadernos/contenido/CP.53/CP.53.3.OlacFuentes.pdf>
- García-Bátiz, M. L. (2006). *Planeación participativa: la experiencia de la política ambiental en México* (p. 249). México, D.F.: Plaza y Valdés - Universidad de Guadalajara.
- García, I. (2013, July 2). Jorge Hank Rhon, un poder político cimentado en el dinero. *CNN Mexico*. Mexico D.F.
- García, M. (1997). Desplazarán a 18 mil chinantecos para elevar el nivel de dos presas. *La Jornada*, p. 2 de marzo de 1997. México, D.F.

- Gerber, L. G. (1995). Corporatism and State Theory: A Review Essay for Historians. *Social Science History*, 19(3), 313–332. Retrieved from <http://www.jstor.org/stable/1171489?seq=3>
- Gil-Corrales, M. Á. (2007). *Crónica ambiental. Gestión pública de políticas ambientales en México* (p. 559). México, D.F.: Fondo de Cultura Económica - Secretaría de Medio Ambiente y Recursos Naturales - Instituto Nacional de Ecología.
- Gómez-Balandra, M. A., Saldaña-Fabela, M. P., & Martínez-Jiménez, M. (2014). The Mexican Environmental Flow Standard: Scope, Application and Implementation. *Journal of Environmental Protection*, 5(1), 71–79. doi:10.4236/jep.2014.51010
- Gómez-Balandra, M. A., Saldaña, P., Lecanda, C., & Gutiérrez, E. (2006). Advances in integrative approaches for dams' viability in Mexico. In L. Berga, J. M. Buil, E. Bofill, J. C. De-Cea, J. A. García-Pérez, G. Mañueco, ... J. Yagüe (Eds.), *Dams and Reservoirs, Societies and Environment in the 21st Century. Vol 2* (pp. 1187–1195). London: Taylor & Francis Group.
- Gómez-Fuentes, A. C. (2012). Asunto: Defensa del pueblo Temacapulín, Jalisco en contra de la construcción Presa El Zapotillo, en el estado de Jalisco. *Boletín Colegio de Etnólogos y Antropólogos Sociales*, 87–100.
- Gómez-Vilchis, R. R. (2013). El regreso del dinosaurio: un debate sobre la reciente victoria del PRI en la elección presidencial de 2012. *Estudios Políticos*, 9(28), 145–161.
- Gudynas, E (2009). Ciudadanía Ambiental y Meta-Ciudadanías Ecológicas. Revisión y Alternativas en América Latina. In J. Reyes & E. Castro (Eds.), *Urgencia y Utopía Frente a la Crisis de Civilización* (pp. 58–101). Guadalajara: Universidad de Guadalajara y Ayuntamiento de Zapopan.
- Gutiérrez-Rosete, J.-G. Dictamen en materia de piscología social (2010). Guadalajara, México: Juzgado Quinto de Distrito.
- Hajer, M. (1995). *The Politics of Environmental Discourse*. Oxford, England: Claredon Press.

- Harré, R., Brockmeier, J., & Mühlhäusler, P. (1999). *Greenspeak: A Study of Environmental Discourse* (p. 204). Thousand Oaks, CA, US: SAGE Publications.
- Hernández-Alpízar, J. (2012, October 17). La Yesca: personas afectadas por presa hidroeléctrica demandan respeto a sus derechos. *Zapateando*. [Internet blog]. Retrieved from <http://zapateando.wordpress.com/2012/10/17/la-yesca-personas-afectadas-por-presa-hidroelectrica-demandan-respeto-a-sus-derechos-javier-hernandez-alpizar-la-yesca-tiene-el-rostro-del-afectado-pero-no-resignado-dijo-el-abogado-representante-d/>
- Hernández-Flores, P. (2009, March 2). Seis meses bajo el agua. *La Gaceta (UDG)*, pp. 4–5. Guadalajara, México.
- Hernández-Flores, P. (2011, July 10). El pueblo que desea existir. *Día Siete*, pp. 24–31. Guadalajara, México.
- Hernández, J., & Casillas, M. (2008). La presa que se llenó de engaños: el caso de San Nicolás, Jalisco. Respuesta regional a los proyectos estatales de trasvases. *Relaciones*, XXIX (116), 23–62.
- Horton, D. (2006). Demonstrating Environmental Citizenship? A Study of Everyday Life among Green Activists. In A. Dobson & D. Bell (Eds.), *Environmental Citizenship* (pp. 127–150). London: The MIT Press.
- Huddart-Kennedy, E., 2011. Rethinking ecological citizenship: the role of neighbourhood networks in cultural change. *Environmental Politics*, 20(6), pp.843–860. Available at: <http://www.tandfonline.com/doi/abs/10.1080/09644016.2011.617169> [Accessed December 17, 2013].
- Huitema, D., Mostert, E., Egas, W., Moellenkamp, S., & Pahl-Wostl, C. (2009). Adaptive Water Governance : Assessing the Institutional Prescriptions of Adaptive (Co-) Management from a Governance Perspective and Defining a Research Agenda. *Ecology and Society*, 14(1), 26. Retrieved from http://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1026&context=unf_research

- Humphrey, M., 2007. *Ecological Politics and Democratic Theory*, London: Routledge.
- Huntington, S.P., 1991. *The third wave : democratization in the late twentieth century*, Oklahoma, US: Norman: University of Oklahoma Press.
- IDD-LAT, 2013. *Indice de Desarrollo Democrático de América Latina 2013*, Montevideo, Uruguay: Konrad-Adenauer-Stiftung & Polilat. Available at: <http://www.idd-lat.org/2013/downloads/idd-lat-2013.pdf>.
- INEGI. (2010). *Panorama de las religiones en México 2010* (p. 270). Aguascalientes, México: Instituto Nacional de Estadística y Geografía.
- INEGI. (2011). *Sistema de Cuentas Nacionales de México. Producto Interno Bruto por entidad federativa. Año base 2003*. (p. 357). Aguascalientes, México: Instituto Nacional de Estadística y Geografía.
- INEGI. (2013). *Estadísticas a propósito del día internacional del migrante* (pp. 1–13). Aguascalientes, México. Retrieved from <http://www.inegi.org.mx/inegi/contenidos/espanol/prensa/Contenidos/estadisticas/2013/migrante0.pdf>
- J.H.University. (2011). Johns Hopkins Global Civil Society Index. Baltimore, USA: Center for Civil Society Studies, The Johns Hopkins University. Retrieved from http://ccss.jhu.edu/wp-content/uploads/downloads/2011/12/Civil-Society-Index_FINAL_11.15.2011.pdf
- Jimenez-Domínguez, B. (2013). Efectos psicosociales anticipados del proyecto de Presa El Zapotillo sobre los habitantes de Temacapulín. In J.-M. Flores-Osorio (Ed.), *Repensar la psicología y lo comunitario en América Latina* (pp. 139–172). Tijuana, Mexico: Universidad de Tijuana CUT.
- Kaya, A. (2012). Transnational citizenship: German-Turks and liberalizing citizenship regimes. *Citizenship Studies*, 16(2), 153–172.
doi:10.1080/13621025.2012.667608

- Kramer, J. (2006). *Implementation of River Basin Management in Mexico. Organization.* Ohio University. Retrieved from <http://etd.ohiolink.edu/send-pdf.cgi/KramerJulie.pdf?ohiou1148567251>
- Krauze, E. (2010). México contemporáneo (1988-2008). In G. Von-Wobeser (Ed.), *Historia de México*. Mexico D.F.: Secretaría de Educación Pública - Fondo de Cultura Económica.
- Kurian, G.T. et al. eds., 2011. *Encyclopaedia of Political Science*, Washington, D.C.: CQ Press.
- La-Jornada-Jalisco. (2014, April 1). En 2013 subió a 6 mil universitarios la matrícula de la UdeG: Tonatiuh Bravo. *La Jornada Jalisco*. Guadalajara, México. Retrieved from <http://www.lajornadajalisco.com.mx/2014/04/01/en-2013-subio-a-6-mil-universitarios-la-matricula-de-la-udeg-tonatiuh-bravo/>
- Lago, S., & Marotias, A. (2006). Los Movimientos Sociales en la Era de Internet. *Razón y Palabra*, (54). Retrieved from <https://www.razonypalabra.org.mx/anteriores/n54/lagomarotias.html>
- Lane, J.-E. (1995). *The Public Sector. Concepts, Models and Approaches*. London: SAGE Publications.
- Langner, A. (2013, October 3). Luege Tamargo recomienda no crear secretaría del agua. *El Economista*. México, D.F. Retrieved from <http://eleconomista.com.mx/sociedad/2012/10/03/conagua-recomienda-pena-crear-secretaria-ordenamiento-territorial>
- Latta, A. (2014). *Matter, politics and the sacred: insurgent ecologies of citizenship*. *Cultural Geographies*, 21(3), pp. 323-341.
- Latta, A. & Wittman, H., eds (2012). *Environment and Citizenship in Latin America. Natures, Subjects and Struggles*. New York, US: CEDLA, Latin American Studies - Berghahn Books.

- Latta, A. & Wittman (2010). Environment and Citizenship in Latin America: A New Paradigm for Theory and Practice. *European Review of Latin American and Caribbean Studies*, 89, pp. 107-116.
- Layton, M. (2009). Philanthropy and the Third Sector in Mexico : The Enabling Environment and Its Limitations. *Norteamérica Revista Académica*, 4(1), 87–120.
- Layton, M. (2011, November). Focos rojos en las cifras sobre sociedad civil organizada. *Este País*. Retrieved from <http://estepais.com/site/?p=35835>
- Lezama-Escalante, C. (2012). Temacapulín: La lucha de un pueblo que se resiste a desaparecer. In D. Tetreault, H. Ochoa, & E. Hernández (Eds.), *Conflictos Socioambientales y Alternativas de la Sociedad Civil* (pp. 127–150). Guadalajara, México: Instituto Tecnológico y de Estudios Superiores de Occidente (ITESO).
- Lira, A. (2010). La consolidación Nacional (1853-1887). In G. Von-Wobeser (Ed.), *Historia de México* (pp. 185–207). Mexico D.F.: Secretaría de Educación Pública - Fondo de Cultura Económica.
- Loaeza, S. (1994). Las relaciones Estado-Iglesia Católica en México, 1988-1994. Los costos de la institucionalización. *Foro Internacional*, (143-144), 107–132. Retrieved from <http://201.147.150.252/handle/123456789/1077>
- López, M. (2005). *Geopolítica y Gestión Pública del Agua en la Zona Metropolitana de Guadalajara: un Análisis de lo Global a lo Local*. Instituto Tecnológico y de Estudios Superiores de Occidente.
- Luque, E., 2006. Researching Environmental Citizenship and its Publics. In A. Dobson & A. Valencia Sáiz, eds. *Citizenship, Environment, Economy*. London: Routledge, pp. 55–69.
- MacGregor, S., 2006. No Sustainability without Justice: A Feminist Critique of Environmental Citizenship. In A. Dobson & D. R. Bell, eds. *Environmental Citizenship*. London: The MIT Press, pp. 101–126.

- Machin, A., 2012. Decisions, disagreement and responsibility: towards an agonistic green citizenship. *Environmental Politics*, 21(6), pp. 847–863. Available at: <http://www.tandfonline.com/doi/abs/10.1080/09644016.2012.712791> [Accessed December 17, 2013].
- Martínez-Lagunes, R., & Rodríguez-Tirado, J. (1998). Water policies in Mexico. *Water*, 1, 103–114.
- Martinez, A. (2014, August). Les llevan Internet hasta Temacapulín. *Mural*. Guadalajara, México.
- Martínez, S. (2012, August 20). Los muertos de Felipe Calderón. *Sin Embargo MX*. Mexico D.F. Retrieved from <http://www.sinembargo.mx/opinion/20-08-2012/8932>
- Martinsson, J. & Lundqvist, L.J., 2010. Ecological citizenship: coming out “clean” without turning “green”? *Environmental Politics*, 19(4), pp.518–537. Available at: <http://www.tandfonline.com/doi/abs/10.1080/09644016.2010.489709> [Accessed December 17, 2013].
- MCD_INDESOL. (2011). Presa Zapotillo en Jalisco. In L. Becerra, M. Canto, & M. López (Eds.), *Las Articulaciones y Estrategias de las Organizaciones de la Sociedad Civil en México para la Interlocución y la Incidencia* (pp. 32–42). México, D.F.: Movimiento por la Comunidad y el Desarrollo, AC - Instituto Nacional de Desarrollo Social.
- McDonald-Wilmsen, B., & Webber, M. (2010). Dams and Displacement : Raising the Standards and Broadening the Research Agenda. *Water Alternatives*, 3(2), 142–161.
- McGregor, A. (2000). *Warm fuzzy feelings : discursive explorations into Australian environmental imaginations*. University of Sydney.
- McGregor, A. (2004). Sustainable development and ‘warm fuzzy feelings’: discourse and nature within Australian environmental imaginaries. *Geoforum*, 35(5), 593–606. doi:10.1016/j.geoforum.2004.02.001

- Meadow, D. H. (1972). *The Limits to growth : a report for the Club of Rome's Project on the Predicament of Mankind* (p. 205). London: Potomac Associates.
- Merriam, S. B. (2009). *Qualitative research: a guide to design and implementation* (p. 320). San Francisco, US: Jossey-Bass - Wiley
- Mestries, F. (2013). Los migrantes de retorno ante un futuro incierto. *Sociológica*, 28(78), 171–212. Retrieved from file:///C:/Documents and Settings/ffiguero/My Documents/Downloads/Los migrantes de retorno ante un futuro incierto.pdf
- Meyer, J. (2010). México entre 1934 y 1968. In G. Von-Wobeser (Ed.), *Historia de México* (pp. 249–259). Mexico D.F.: Secretaría de Educación Pública - Fondo de Cultura Económica.
- Meyer, L. (2013). *Nuestra tragedia persistente* (p. 488). Mexico D.F.: DEBATE (Random House Mondadori).
- Micheli, J. (2000). Política ambiental en el sexenio 1994-2000 (antecedentes y globalización del mercado ambiental mexicano). *El Cotidiano*. UAM-A, 17(103), 90–102. Retrieved from <http://redalyc.uaemex.mx/pdf/325/32510309.pdf>
- Mireille, A. (2013, June 7). México padece por los efectos de no leer. *Sin Embargo MX*. México, D.F. Retrieved from <http://www.sinembargo.mx/07-06-2013/644000>
- Mumme, S. P., & Lybecker, D. (2002). Environmental Capacity in Mexico: an Assessment. In H. Weidner & M. Jänicke (Eds.), *Capacity Building in National Environmental Policy* (pp. 311–327). Berlin: Springer.
- Mussetta, P. (2009). Participación y gobernanza . El modelo de gobierno del agua en México. *Espacios Públicos (UAEM)*, 12(25), 66–84. Retrieved from <http://redalyc.uaemex.mx/redalyc/src/inicio/ArtPdfRed.jsp?iCve=67611350005>
- Narro-Robles, J., & Moctezuma-Navarro, D. (2012). Analfabetismo en México : una deuda social. *Revista Internacional de Estadística y Geografía*, 3(3), 5–17.

- Navarajo, J. (2012, November 26). Seis años después: miles de muertos y un Estado más vulnerable. *Aristegui Noticias*. Mexico D.F. Retrieved from <http://aristeguinoticias.com/2611/mexico/seis-anos-despues-miles-de-muertos-y-un-estado-mas-vulnerable/>
- Nixon, R. (2011). *Slow Violence and the Environmentalism of the Poor* (p. 354). Cambridge, US: Harvard University Press.
- Núñez, F. J. (2009, November 2). Arcediano (2003-2009). *El Economista*. México. Retrieved from <http://eleconomista.com.mx/notas-impreso/foro-economico/2009/11/02/arcediano-2003-2009>
- Ortega-Riquelme, J. M. (1997). Sobre el desarrollo de la teoría del neocorporativismo. *Revista Mexicana de Sociología*, 59(4), 31–45.
- Palerm, J. (2005). Practice report: Needs and opportunities for SEA in Mexico: a view through the Arcediano dam case study. *Impact Assessment and Project Appraisal*, 23(2), 125–134. doi:10.3152/147154605781765607
- Partida, J. C. G. (2011, March 2). Reprueba Juan Sandoval apoyo de cura a colonos que rechazan presa. *La Jornada*, p. 37. México, D.F. Retrieved from <http://www.jornada.unam.mx/2011/03/02/estados/037n1est>
- Peet, R., & Watts, M. (Eds.). (1996). *Liberation Ecologies* (p. 273). London: Routledge.
- Pérez, A. G., Cuevas, M. L., Cotler, H., González, D. I., & Tharme, R. (2010). Evaluación del grado de alteración ecohidrológica de los ríos y corrientes superficiales de México. *Investigación Ambiental*, 2(1), 25–46.
- Políticas-Públicas. (2013, August 14). Reporte Legislativo, Comisión Permanente: Miércoles 14 de 2013. *Políticas Públicas COM.MX*. Mexico D.F.
- Portes, A., Haller, W., & Guarnizo, L. E. (2001). Transnational entrepreneurs: the emergence and determinants of an alternative form of immigrant economic adaptation. Oxford, England: Transnational Communities Program - University of Oxford. Retrieved from <http://www.transcomm.ox.ac.uk/workingpapers/WPTC-01-05 Portes.pdf>

- Provencio, E., Alvarez, P., González, A., & Martínez, R. (1999). Impactos Sociales y Ambientales. In F. Arreguín, C. Herrera, H. Marengo, & G. A. Paz-Soldán (Eds.), *El desarrollo de las presas en México. Memorias. Avances en Hidráulica 5* (pp. 65–87). Mexico D.F.: Asociación Mexicana de Hidráulica - Instituto Mexicano de Tecnologías del Agua.
- Purvis, M., & Grainger, A. (Eds.). (2004). *Exploring Sustainable Development. Geographical Perspectives* (p. 402). London: Earthscan.
- Racine-Salazar, M. V. (2008). *La justicia constitucional en México: actualidad y perspectivas* (p. 352). Toluca, México: Instituto de Administración Pública del Estado de México. Retrieved from http://www.iapem.org.mx/iapem_nueva/docs/libros/978-968-6452-81-8.pdf
- RAE. (2001). *Diccionario de la Lengua Española* (22nd ed.). Real Academia Española. Retrieved from <http://rae.es/rae.html>
- Ramírez-Flores, F. (2013, April 4). El Zapotillo: una presa, una lucha y varias alternativas al problema del agua. *Magis (ITESO)*. Guadalajara, México. Retrieved from <http://www.magis.iteso.mx/redaccion/El-Zapotillo-presa-lucha-alternativas-problema-agua>
- Ramírez, E. (2010, October 20). Desplazados por la presa El Zapotillo. *Contralínea*. Mexico D.F. Retrieved from <http://contralinea.info/archivo-revista/index.php/2010/10/20/desplazados-por-la-presa-el-zapotillo/>
- Ramírez, J. (2014). Temacapulín. Crónica de un despojo etiquetado. *Crónica de Sociales. ORG*. Guadalajara, México. Retrieved from <http://cronicadesociales.org/2014/05/08/temacapulin;cronica;de;un;despojo;etiquetado/>
- Ravelo, R. (2014, June 4). Los Hank : Estirpe de corrupción. *Proceso*. Mexico D.F. Retrieved from <http://www.proceso.com.mx/?p=271709>
- Rea, D. (2012, October 1). Tendrá Agua su Secretaría. *Reforma*, p. 1. México, D.F.

- Reding, A. (1988). Mexico at a crossroads: the 1988 election and beyond. *World Policy Journal*, 5(4), 615–649.
- Reyes del Campillo, J. (2012). 2012. Elecciones sembradas de dudas. *El Cotidiano*, (175), 37–47. Retrieved from Disponible en: <http://www.redalyc.org/articulo.oa?id=32524468005>
- Reyes-Mendoza, L. (2012). *Introducción al Estudio del Derecho* (p. 138). Tlalnepantla, México: Red Tercer Milenio, SC. Retrieved from http://www.aliatuniversidades.com.mx/bibliotecasdigitales/pdf/sistemas/Introduccion_al_estudio_del_derecho.pdf
- Reyes, J.-P. (2013, October 3). Luege defiende Conagua ; podría existir una Secretaría del Agua. *Excelsior*. México, D.F. Retrieved from <http://www.excelsior.com.mx/2012/10/03/nacional/862352>
- Reza, G. (2009, April 12). Arcediano y El Zapotillo: El descrédito. *Proceso-Jalisco*. Guadalajara, México. Retrieved from <http://www.proceso.com.mx/?p=85583>
- Ríos, J. (2014, April 25). El Congreso llamará a la ASF a revisar cuentas de El Zapotillo. *La Jornada Jalisco*. Guadalajara, México.
- Rivera, P., & Foladori, G. (2006). Reflexiones sobre la contabilidad ambiental en México. *Economía, Sociedad y Territorio*, VI(21), 177–217.
- Rodríguez-Solórzano, C. (Ed.). (2003). *La descentralización en México. Experiencias y reflexiones para orientar la política ambiental* (p. 176). México, D.F.: Instituto Nacional de Ecología. Retrieved from <http://www2.ine.gob.mx/publicaciones/download/403.pdf#page=116>
- Rodríguez, M. (2012). *Temaca en el Alma* (p. 108). Guadalajara, México: La Casa del Mago.
- Rojas, J. P. (2007). La hidropolítica en Jalisco en los albores del siglo XXI : Tres escenarios de conflicto y negociación política en torno al proyecto público de la presa de Arcediano. *Estudios Sociales, Nueva Época*(2), 103–135. Retrieved from

http://www.publicaciones.cucsh.udg.mx/ppperiod/estsoc/pdf/estsoc07_2/estsoc07_2_103-135.pdf

- Romero-Lankao, P. (2007). Descentralización y retiro del Estado ¿Mecanismos para gestionar sustentablemente el agua? *Gestión y Política Pública*, XVI(1), 29–59.
- Sánchez-Quintanar, C. (2005). Causas de los comportamientos migratorios desde la perspectiva de migrantes y no migrantes. Puebla, México. *Revista Mexicana de Psicología*, 22(2), 505–512.
- Schirmer, J., 2013. Engaging with scientific data: making it meaningful. In H. J. Aslin & S. Lockie, eds. *Engaged Environmental Citizenship*. Darwin, Australia: Charles Darwin University Press, pp. 87–105.
- Schultz, B. (2001). Language and the Natural Environment. In A. Fill & P. Mühlhäusler (Eds.), *The Ecolinguistics Reader* (pp. 109–114). New York, US: Continuum.
- Serrano-Iñiguez, S. (2014, April 29). Infraestructura básica para El Zapotillo es de \$ 13 mil millones. *Milenio*. Guadalajara, México. Retrieved from http://www.milenio.com/politica/Infraestructura-basica-Zapotillo-mil-millones_0_289771074.html?print=1
- Smith, P. H. (2004). Los ciclos de democracia electoral en América Latina, 1900-2000. *Política y Gobierno*, XI(2), 189–228. Retrieved from http://www.politicaygobierno.cide.edu/num_anteriores/Vol_XI_N2_2004/SMITH.pdf
- Sundberg, J. (2012). Negotiating Citizenship in the Maya Biosphere Reserve, Guatemala. In Latta, A. & Wittman, H., eds. *Environment and Citizenship in Latin America. Natures, Subjects and Struggles*. New York, US: CEDLA, Latin American Studies - Berghahn Books.
- Sunyer, P., & Peña, A. E. (2008). Quince años de desarrollo sostenible en México. In *X Coloquio Internacional de Geocrítica. Diez años de cambio en el mundo, en la*

- geografía y en las ciencias sociales, 1999-2008*. Barcelona: Universidad de Barcelona. Retrieved from <http://www.ub.edu/geocrit/-xcol/317.htm>
- Szerszynski, B., 2006. Local Landscapes and Global Belonging: Towards a Situated Citizenship of the Environment. In A. Dobson & D. Bell, eds. *Environmental Citizenship*. London: The MIT Press, pp. 75–100.
- Tetreault, D., Ochoa, H., & Hernández, E. (Eds.). (2012). *Conflictos Socioambientales y Alternativas de la Sociedad Civil* (p. 280). Guadalajara, México: Instituto Tecnológico y de Estudios Superiores de Occidente (ITESO).
- Tilt, B., Braun, Y., & He, D. (2009). Social impacts of large dam projects: a comparison of international case studies and implications for best practice. *Journal of Environmental Management*, 90 Suppl 3, S249–57.
doi:10.1016/j.jenvman.2008.07.030
- Torgerson, D. (1999). *The Promise of Green Politics. Environmentalism and the Public Sphere* (p. 220). Durham, US: Duke University Press.
- Torres, M. (2014, July 9). 20 puntos clave en las nuevas leyes sobre telecomunicaciones. CNN Mexico. México, D.F. Retrieved from <http://mexico.cnn.com/nacional/2014/07/09/20-puntos-clave-en-las-nuevas-leyes-sobre-telecomunicaciones>
- Torres, R. (2009, March 19). Los convenios con Guanajuato sobre el agua del río Verde violan la soberanía de Jalisco : AMCAS. *La Jornada Jalisco*. Guadalajara, México. Retrieved from <http://www1.lajornadamichoacan.com.mx/2009/03/19/index.php?section=politica&article=009n1pol>
- TPP-México. (2012). *Pre-audiencia sobre Presas, Derechos de los Pueblos e Impunidad Mesa de devastación ambiental y derechos de los pueblos Capítulo Mexicano del Tribunal Permanente de los Pueblos Dictamen final* (p. 42). México, D.F. Retrieved from http://www.tppmexico.org/wp-content/uploads/2013/04/Dictamen_final_preaudienciaPresasTPP.pdf

- UN-Human-Rights. (2011). End of Mission to Mexico: Mexico requires a new strategy to overcome the twin challenges of “food poverty” and obesity, says UN food expert. Mexico D.F.: Office of the High Commissioner for Human Rights. Retrieved from <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=11173&LangID=E>
- Valdez-Escontrilla, H. A. (2009). El catolicismo social en la Iglesia mexicana. *Política y Cultura*, (31), 139–159. Retrieved from <http://www.redalyc.org/pdf/267/26711982008.pdf>
- Valencia Sáiz, A., 2005. “Globalisation, Cosmopolitanism and Ecological Citizenship.” *Environmental Politics*, 14(2), pp.163–178. Available at: <http://www.tandfonline.com/doi/abs/10.1080/09644010500054848> [Accessed December 17, 2013].
- Van Dijk, T. A. (2011). Discourse and Ideology. In T. A. van Dijk (Ed.), *Discourse Studies* (pp. 379–404). London: SAGE Publications.
- Vázquez-Anderson, A. (2004). Democracia en México: transición hacia un corporativismo social. *Espiral*, X(29), 11–44. Retrieved from <http://www.redalyc.org/articulo.oa?id=13802901>
- Velazco, A. (2013, February 13). Clausura Cañadas de Obregón la construcción del Talicoyunque. *La Jornada Jalisco*. Guadalajara, México. Retrieved from <http://www.lajornadajalisco.com.mx/2013/02/13/clausura-canadas-de-obregon-la-construccion-del-complejo-habitacional-en-talicoyunque/>
- Velazco, A. (2014, June 22). Conredes asegura que trasvase de agua a León afectará producción de alimentos en Los Altos. *La Jornada Jalisco*. Guadalajara, México. Retrieved from <http://www.lajornadajalisco.com.mx/2013/06/22/conredes-asegura-que-trasvase-de-agua-a-leon-afectara-produccion-de-alimentos-en-los-altos/>

- Verduzco, B., & Sánchez, A. (2008). Planning hydroelectric power plants with the public: a case of organizational and social learning in Mexico. *Impact Assessment and Project Appraisal*, 26(3), 163–176. doi:10.3152/146155108X363052
- Von-Bertrab, É., Díaz-Alba, C., & Fisher, S. (2011). Grandes presas en México: entre la imposición y la resistencia. La lucha de Temacapulín. *Ecología Política*, (41), 117–122.
- Von-Borstel, M. (2013). La guerra de baja intensidad contra las comunidades en resistencia contra la represa El Zapotillo. San Cristobal de las Casas, Mexico: Otros Mundos AC / Amigos de la Tierra Mexico.
- Wanner, T. (2014). The New “Passive Revolution” of the Green Economy and Growth Discourse: Maintaining the “Sustainable Development” of Neoliberal Capitalism. *New Political Economy*, 0(0), 1–21. doi:10.1080/13563467.2013.866081
- White, R. (2013). Environmental harm, ecological citizenship and transnational activism. In H. J. Aslin & S. Lockie (Eds.), *Engaged Environmental Citizenship* (pp. 19–34). Darwin, Australia: Charles Darwin University Press.
- Wilder, M. (2005). Water, Power and Social Transformation: Neoliberal Reforms in Mexico. *Hors Série - Vertigo*, 6(1), 1–5. Retrieved from <http://vertigo.revues.org/1925?file=1>
- Wilder, M. (2010). Political and economic apertures and the shifting state-citizen relationship: reforming Mexico’s national water policy. In D. Huitema & S. Meijerink (Eds.), *Water policy entrepreneurs. A research companion to water transitions around the globe* (pp. 79–96). Cheltenham, UK: Edward Elgar Publishing Limited.
- WJP. (2014). *The World Justice Project Rule of Law Index 2014* (p. 218). Washington, D.C.: The World Justice Project.
- Zapata-Schaffeld, F. (2004). ¿Democratización o rearticulación del corporativismo? El caso de México. *Política*, (42), 13–40. Retrieved from <http://www.redalyc.org/articulo.oa?id=64504203>

Zeijl-Rozema, A. Van, Cörvers, R., Kemp, R., & Martens, P. (2008). Governance for Sustainable Development : *Sustainable Development*, 16(6), 410–421.
doi:10.1002/sd