

Movements against the current

Scale and social capital in peasants' struggles
for water in the Ecuadorian Highlands



Jaime Hoogesteger

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Movements against the current

Scale and social capital in peasants' struggles for water in the Ecuadorian Highlands

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Thesis

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Con el agua nos hemos familiarizado, se ha unido el pueblo y las comunidades. Con el agua nos hemos formado porque hay las asambleas generales, hay las mingas, allí nos encontramos nos conversamos, nos conocimos. Entonces hemos llegado como una familiarización con el agua.

...

La importancia de las organizaciones de base es estar organizados para reclamar nuestros derechos, entonces, yo, si yo solita voy a reclamar, nadie me va a hacer caso, pero si estamos organizados, estamos vinculados a una organización grande, podemos hacer como dice ‘la unión hace la fuerza’. Eso es mantenerse una organización.

With water we have familiarized, the village and the communities have united. With water, we have formed ourselves because there are general assemblies, there are *mingas*, there we find each other, we talk to each other, we got to know each other. So we have come to a familiarization with water...

The importance of the grassroots organisations is to be organized to claim our rights, so I, if I alone go to claim, no one will listen, but if we are organized, if we are linked to a large organization, we can, as they say, ‘our unity makes us strong’. That is to maintain an organization. (Author’s translation)

-Inés Chapi, Licto, Chimborazo, March 2011.

...to Gerrit van Vuren who left from our midst to soon.

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Abbreviations and Acronyms

ACRA	Italian based international NGO Association for Cooperation in Africa and Latin America; <i>Associazione di Cooperazione in Africa e America Latina</i>
AEJUR	Association of Ecuadorian Irrigation Water Users, <i>Asociación Ecuatoriana de Juntas Usuarias de Riego</i>
AVSF	French international NGO Agronomists and Veterinaries without Borders; <i>Agronomes et Vétérinaires sans Frontières</i>
CAAP	Andean Centre for Popular Action; <i>Centro Andino de Acción Popular</i>
CAMAREN	Consortium for Capacity Building in the Management of Natural Resources; <i>Consortio de Capacitación en el Manejo de los Recursos Naturales</i>
CESA	Ecuadorian Central for Agricultural Services; <i>Central Ecuatoriana de Servicios Agrícolas</i>
CNRH	National Council of Water Resources; <i>Consejo Nacional de los Recursos Hídricos</i>
CODERECH	Regional Development Corporation of Chimborazo; <i>Corporación de Desarrollo Regional de la Provincia de Chimborazo</i>
CONAIE	Confederation of Indigenous Nationalities of Ecuador; <i>Confederación de Nacionalidades Indígenas del Ecuador</i>
Concertación	Inter-Andean research and networking programme financed by DGIS
CORSICEN	Regional Development Corporation of the Central Highlands; <i>Corporación Regional de Desarrollo Sierra Centro</i>
COSUDE	Swiss Agency for Development and Cooperation; <i>Cooperación Suiza para el Desarrollo</i>
DGIS	The Netherlands' Directorate-General for International Cooperation; <i>Directoraat-generaal Internationale Samenwerking</i>
FEDURICC	Federation of Indigenous and Peasant Irrigators of Cotopaxi; <i>Federación de Usuarios de Riego Indígenas y Campesinos de Cotopaxi</i>
FEPP	Ecuadorian Fund Populorum Progressio; <i>Fondo Ecuatoriano Populorum Progressio</i>
FIR	Forum for Irrigation, <i>Foro Interinstitucional de Riego</i>
FOCCAP	Federation of Peasant Organisations of the Pillaro Parish; <i>Federación de las Organizaciones Campesinas de la Parroquia San Andres del Cantón Pillaro</i>
FONAG	Water Fund of the City of Quito, <i>Fondo para la Protección del Agua</i>
FOPAR	Fund for the Protection of Riobamba's Water; <i>Fondo de Protección del Agua de Riobamba</i>
Hydrocracy	State bureaucracy concerned with water management
IEDECA	Institute of Ecology and Development of the Andean Communities; <i>Instituto de Ecología y Desarrollo de las Comunidades Andinas</i>
INAR	National Irrigation Institute; <i>Instituto Nacional del Riego</i>
INERHI	Ecuadorian Institute of Hydraulic Resources; <i>Instituto Ecuatoriano de Recursos Hidráulicos</i>
Interjuntas-Chimborazo	Provincial Water Users Organisations' Federation of Chimborazo; <i>Federación Provincial de Organizaciones de Usuarios del Agua de Chimborazo</i>
IMT	Irrigation Management Transfer
JAAPRE	National Alliance of Water Use Communities, <i>Juntas de Usuarios de Agua Potable y Riego del Ecuador</i>

JPURC	Water Users Federation of Chimborazo; <i>Junta Provincial de Usuarios de Riego de Chimborazo</i>
NGOs	Non-governmental development organisations
NUFFIC	Netherlands Organization for International Cooperation in Higher Education
MAGAP	Ministry of Agriculture, Livestock, Aquaculture and Fisheries; <i>Ministerio de Agricultura, Ganadería, Acuacultura y Pesca</i>
SENAGUA	National Water Secretariat; <i>Secretaría Nacional del Agua</i>
SNV	Dutch based Netherlands Development Organization (NGO)
SPPC	Ministry of People and Citizen Participation; <i>Secretaría de Pueblos y Participación Ciudadana,</i>
SWAS	Struggling for Water Security research programme
WA	Water Agency, <i>Agencia de Aguas</i>
WALIR	Water Law and Indigenous Rights inter-Andean research and networking programme financed by DGIS
WRF	Water Resources Forum; <i>Foro de los Recursos Hídricos</i>

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Chapter 1: Introduction

'Private property 1975' is written on the intake of the irrigation system on which three members of the community of Chorrera Mirador Alto, at the foothills of the Chimborazo mountain, stand. I took this picture during a field visit on February 16th 2011, with the lawyer of the Office of Legal Advice of the Provincial Water Users Organization's Federation Interjuntas-Chimborazo. The community, member of the federation, was engaged in a legal process to defend its water rights vis-a-vis a cement factory. But not only were they pursuing a legal procedure, the community also jealously guarded its' territory and water by preventing strangers and officials from entering 'their land' without prior consent. The community's organization, production systems and infrastructure were a result of multi-scalar interactions between the community, indigenous and peasant organisations, state agencies and non-governmental organisations. This thesis explores how in the Ecuadorian Highlands peasant and indigenous communities like Chorrera Mirador Alto, struggle for secure access to water and voice in water governance at local, regional and national scales by creating organisations and collectives through which they can develop political agency. The present chapter introduces this thesis which revolves around the following main research question: How have peasant and indigenous communities developed multi-scalar political agency in water governance to gain and maintain their water access and related rights in the Ecuadorian Highlands since the 1980s?

1.1 Introduction

This thesis analyses the histories and relationships between organized water users, water reforms and non-governmental development organisations (NGOs) in the Ecuadorian Highlands since the early 1980s. Internationally Ecuador is well known for its indigenous movement, which under the umbrella of the Confederation of Indigenous Nationalities of Ecuador (*Confederación de Nacionalidades Indígenas del Ecuador*, CONAIE) has booked important achievements in national, regional and local politics (Andolina, Laurie and Radcliffe 2009, Becker 2008, Laurie, Andolina and Radcliffe 2005). Many studies have analysed how this movement emerged and developed into an important political actor. Although less studied, water users -as a distinct economic and identity based group- have moved from the defence of particular interests to struggles for structural political changes in Ecuador, in this case, concerning water governance. This research is based on the study of a) two local water user organisations; b) one regional federation of water user organisations; c) a national multi-stakeholder platform; and d) the relations between these different levels of analysis (see figure 1 for location of studies). It shows how through the consolidation of normative frameworks, organisations and networks, water users have included themselves and changed water governance at multiple scales.

The dynamics of resource control in Ecuador makes it important to understand how organized water users have come to participate in shaping water governance from the bottom up. In the Ecuadorian Highlands, inequalities in access to land and water are old and longstanding, traversing the periods of the colonial hacienda rule, the independent nation state development, and stretching to the present (Boelens 2008a, Gaybor 2010). The inequalities are not only in access to water and land, but also in the capacity to influence state policies and the distribution of resources. Throughout this history, indigenous and peasant communities have often been left aside by the governing elite. Their allotted role was confined to that of recipients of state policies. Despite this top-down marginalization, peasant and indigenous communities have always strategically fought for their rights from the bottom-up¹. To do so they have mobilized collective action and created strategic alliances with other grassroots based organisations, NGOs, churches and different state institutions (Bebbington and Perreault 1999, Perreault 2003b). What makes the Ecuadorian water user organisations interesting to study in this context, is that they have developed the capacity to influence water governance arrangements simultaneously at the local, regional and national levels. Their capacity to do so, and the issues they struggle for, are important for the ways democracy and participation are conceived of in water governance.

From a perspective of empowerment and people's participation, the Ecuadorian Highlands offer an interesting case to study how water users can develop political agency through the coproduction of 'new' scales. As the state plays an important role in facilitating the coproduction of scales my first empirical chapter (chapter 3) analyses how the state policies both enabled and triggered the organization of water users at different scales. In the empirical chapters that follow I study how water user (re)create local,

¹ See for instance Becker 2008, Korovkin 1997a, 2001.

provincial and national organisations. I undertook two case studies of supra-community irrigation systems to study how water users organize and consolidate their organisations and irrigation technologies beyond the local community level (see chapter 4). These are the irrigation systems of Guanguilquí-Porotog in the Province of Pichincha (a national emblem of indigenous resistance around water), and Pillaro Ramal Norte in the province of Tungurahua (a formally state managed irrigation system that developed through grassroots struggles and alliances with NGOs) (see figure 1). To understand the regional consolidation of water user organisations' federations, I studied the Provincial Water Users Organisations' Federation of Chimborazo (*Federación Provincial de Organizaciones de Usuarios del Agua de Chimborazo*, Interjuntas Chimborazo) that has office in the city of Riobamba, Chimborazo. It represents the peasant and indigenous² water users of one of the poorest provinces of Ecuador (Chapter 5). The analysis of the development of national political agency is informed by a case study of the Water Resources Forum (*Foro de los Recursos Hídricos, WRF*), which has become an important policy advocacy multi-stakeholder platform through which water users have been able to translate their demands into the 2008 Ecuadorian Constitution and forthcoming national water law (see chapter 6).

This thesis contributes to increasing the understanding of the role of organized water user collectives in supra-community irrigation system management and at broader scales (provincial and national) of water governance. The analysis is informed by the concept of 'scale', stemming from human geography, and its' combination with that of social capital, which comes from sociology³. This study shows how the capacity of local actors to press their claims vis-a-vis the state or to resist water claims of external actors -and therewith actively participate in water governance- depends largely on their ability to 'jump scales' (Fox 1996); that is to forge networks with groups or individuals with broader institutional and, therefore, spatial reach (Perreault 2003b). This conception is informed by theoretical bodies concerning the social (re)production of space and the consolidation of place(s). Scale will be understood as intrinsically relational and process based (Swyngedouw 1997). It will be explored to better understand the ability of peasant and indigenous communities to shape (influence) water governance at different levels of organization and political action. This analysis is based on the conception that all political processes and actors are affected by their relation to different spatiality(ies). Water users (re)create their local organisations through practices and relations that maintain their irrigation systems and water flows functioning and by defending their water rights through 'scalar politics' (see chapter 2). The mobilization of trust, reciprocity and collaboration (that is social capital) within groups and their networks, lies at the basis of their engagement in scalar politics. These enable the construction and linkage of hierarchical scales (Bebbington and

² In the Ecuadorian context I use the term 'peasant' rural communities to describe communities that depend on agricultural or livestock production, predominantly under family labour, as one of the most important pillar of their livelihoods. The term indigenous is used to denote those communities that identify themselves as having a specific indigenous identity which separates them in terms of history, culture and forms of organization from other 'peasant communities'.

³Both these terms have been used together before by amongst others Fox 1996, Bebbington 1997b, 1998, Bebbington and Perreault 1999, Perreault 2004. See also chapter 2.

Perreault 1999, Perreault 2003d). As argued in this research, the (re)creation of user based local space(s) around irrigation systems lies at the base of the establishment of multi-scalar networks and alliances and the empowerment of water users; paving the way towards more grassroots participation and democracy.

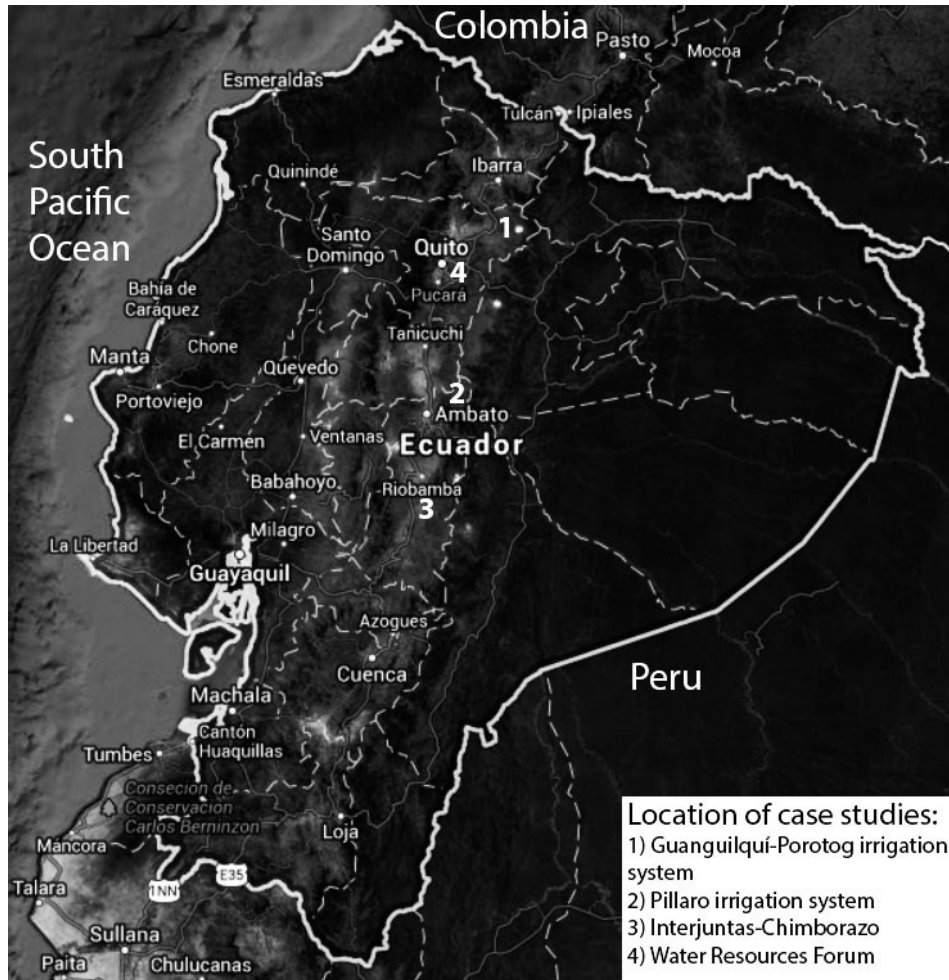


Figure 1 Location of the case studies analysed in this thesis in Ecuador (own elaboration)

The main lines of analysis and argument of this thesis are further elaborated in the following chapters. In the remainder of the present chapter I will present a short descriptive background of irrigation in the Ecuadorian Highlands (section 1.2); the different case studies (section 1.3); the main research themes this thesis contributes to (section 1.4); the main research question and focus of this thesis (section 1.5). In section 1.6, I present how this thesis is embedded in my own research interests and broader research groups. Section 1.7 presents the research methodology. The chapter closes with the structure of the thesis (section 1.8).

1.2 Irrigation in the Ecuadorian Highlands

Irrigation in the Ecuadorian Highlands -just as in many other parts of the Andes- plays an important role in rural societies. It often has multiple purposes as it, for instance, provides a vital source of drinking water for households and livestock and is necessary for the cultivation of most crops. The predominance of rugged terrain that is at times interrupted by the inter-Andean valleys, renders a landscape that is dotted by irrigation schemes both on slopes as well as in the valleys. Most irrigation schemes are small and cover areas of up to a few hundred hectares. Several larger (formerly) state managed schemes, with a command area of between a couple of hundred hectares and up to 10,000 hectares also traverse the landscape (many of which are in the inter-Andean valleys).

Except for the few state irrigation systems, most irrigation management is decentralized and carried out by water user organisations and communities. Water flow patterns, physical irrigation infrastructure and management practices are locally defined and vary from irrigation system to irrigation system. Traditionally water is transmitted to the fields by means of open earthen canals. In the last thirty years an increasing number of irrigation systems have been modernized whereby irrigation canals have been lined, night storage reservoirs built and some irrigation systems have been pressurized (through gravity) to enable sprinkler and -in some scattered cases- drip irrigation. Water allocation and distribution, canal construction and maintenance and the resolution of conflicts are mostly managed at community level.

Before the 1900s, many of the smaller irrigation schemes were built, taken into use, and dominated by landlords (or *haciendas*) who often only gave water to peasants in exchange for labour (Boelens 2008a). A minority were built and/or maintained by 'free communities'. This resulted in a distribution of water that was highly skewed towards the *haciendas* (Hoogesteger 2013b). The onset of the 'large' state managed irrigation systems started in the 1920s when the state took a more prominent role in the development of irrigation in Ecuador. As most land was still in the hands of *haciendas*, these also benefitted the most from state investments (Apollin and Boelens 1996, Arroyo, García and Robles 2011). During the agrarian reforms of the 1960s and 1970s, many communities acquired formerly hacienda owned land⁴ (see de Janvry and Sadoulet 1989). Where the technical possibilities existed, communities engaged at supra-community level in struggles for obtaining irrigation water through either the rehabilitation of formerly hacienda owned irrigation systems or the construction of new ones (often financed by external agents and the state) (see for example Boelens 2002, Korovkin 1997a). The two irrigation systems that are analysed in this thesis are cases in which local communities organized at supra-community level and allied with non-governmental development organisations to press the state and international donors to finance the socio-technical construction of irrigation systems as is presented below.

⁴The Ecuadorian agrarian reforms are very much debated as most *haciendas* were able to keep their most productive land (often irrigated land) while communities were given the marginal lands.

1.3 The case studies

1.3.1 Local level: The irrigation systems of Guanguilquí-Porotog and Pillaro

The two case studies of water user associations that I present and analyse in this thesis (chapter 4) are characterized by irrigation on steep slopes and at high altitudes (above 2600 meters above sea level) and the presence of predominantly smallholders and a few *haciendas*. The two irrigation systems are comparable in production characteristics and are well linked to local markets. Both irrigation systems lend themselves well to the production of vegetables (onions, potatoes, cabbages, and other vegetables) and the establishment of pastures (mostly used for smallholder dairy production). Although intermittent labour migration (mostly by men) has increased in the last twenty years, most households depend on irrigated agriculture for the sustenance of their livelihoods⁵. In both irrigation systems an external (yet different) NGO supported the water users in the consolidation of their irrigation systems. It is interesting to compare these two case studies by focusing on how water user organisations, irrigation infrastructure, internal normative frameworks and the broader networks and political strategies of the water user associations were structured, because of the different intervention methodologies of the external NGOs (see also Hoogesteger and Solis 2009)⁶.

The case study of the Guanguilquí-Porotog irrigation system with a usable water allocation of 800 l/s (and an additional right to 250 l/s) irrigates around 8000 hectares of 3854 water users, according to official data of the Ministry of Agriculture, Livestock, Aquaculture and Fisheries (*Ministerio de Agricultura, Ganadería, Acuacultura y Pesca*, MAGAP). It is situated in the south of the canton Cayambe in the province of Pichincha (see figure 1 and 6). It lies in an indigenous area which is strongly linked to the national indigenous federations. The Institute of Ecology and Development of the Andean Communities (*Instituto de Ecología y Desarrollo de las Comunidades Andinas*, IEDECA) -the NGO that supported the local communities in the consolidation of their irrigation system- has close links with the indigenous movement. These links inform the intervention methodology of IEDECA that is aimed at strengthening existing autonomous community structures, their practices and normative frameworks.

The irrigation system of Pillaro Ramal Norte⁷, has at present 3270 hectares under irrigation with a water allocation of 1270 l/s. It benefits some 3100 families. The case of Pillaro, which is situated in the province of Tungurahua (see figure 1 and 7), has a mix of

⁵ This trend was confined by almost all interviews done during fieldwork and by a small socio-economic survey done in the Cayambe area which is published in Hoogesteger and Solis (2009). To get better figures on how rural livelihoods are economically and socially structured more research is necessary.

⁶ Both interventions in which a socio-technical irrigation system was built were accompanied by other interventions aimed at enhancing local rural livelihoods. An analysis of these broader interventions falls out of the scope of this thesis. Some of these broader interventions are described in Hoogesteger and Solis (2009).

⁷ This irrigation system is part of the Pillaro irrigation system which is divided in two: the northern part which is studied in this thesis and the southern part which was still under construction at the time of the fieldwork.

mestizo-peasant and indigenous smallholder communities. These were supported by the Ecuadorian Central for Agricultural Services (*Central Ecuatoriana de Servicios Agrícolas*, CESA) with the construction of their irrigation systems⁸. CESA is an NGO with a vast experience in irrigation system interventions and the empowerment of water users. Its interventions and political positioning enable it to collaborate with, and work within the frameworks of state agencies. This leads to a different intervention methodology than in irrigation projects that are supported by IEDECA.

1.3.2 Regional level: The water users' federation Interjuntas-Chimborazo

In this thesis I did an in-depth study of Interjuntas-Chimborazo. The province of Chimborazo is situated in the Central Ecuadorian Highlands and has an area of 5287 square kilometres that ranges in altitude between 320 and 6310 meters above sea level (see figure 2). The province is part of two basins which are the Guayas River Basin which drains to the Pacific Ocean; and the Pastaza River Basin that drains into the larger Amazon Basin. The sub-basin of the Chambo river, which is part of the Pastaza Basin, is almost fully contained within the province.

According to the Ecuadorian census of 2010⁹ the province of Chimborazo has a population of close to half a million inhabitants of which around 180,000 live in the urban centres of Riobamba, Colta, Chambo, and Guano. The capital and largest urban centre of the province is the city of Riobamba. The province has a large number of small community and privately (mostly *haciendas*) managed irrigation and domestic water supply systems and five larger irrigation systems¹⁰ that were built by state agencies and/or with international funding. The province has an estimated 50,000 irrigated hectares of which around 10,000 hectares are covered by the larger irrigation systems that were built with external support¹¹. These are Chambo (5,600 hectares), Licto (1300 hectares), Quimiag (1,500 hectares), Cebadas (530 hectares) and Chingazo-Pungales (700 hectares). All of these irrigation systems are in the Chambo sub-basin (see figure 2). Between the mid-and end of the 1990s, all these systems came to be managed by water user associations. In Chambo, Quimiag and Licto the state agency is still (on paper) responsible for the operation and maintenance of the main canal.

To defend their interests at provincial and national level the water user associations of the province have collaborated since 1997. This collaboration, which was later supported by state and non-state agents, led to the establishment of the provincial water users federation Interjuntas-Chimborazo that is now active in provincial water governance. Interjuntas-Chimborazo now brings together 330 water user organisations; including all the larger irrigation systems and both peasant and indigenous based water user

⁸ Initially the organized communities of Pillaro approached IEDECA for collaboration, but as the irrigation system is a state system and would have to be built following state guidelines, IEDECA declined.

⁹ <http://www.inec.gob.ec/cpv/> (accessed February 2013)

¹⁰ Unpublished powerpoint presentation of SENAGUA (Resumen Análisis de las concesiones de agua en la Subcuenca del Río Chambo, Spring 2009).

¹¹ Unpublished powerpoint presentation of CESA, Indicadores Chimborazo, 2008.

organisations of small community managed irrigation and domestic water supply systems. At present, it is one of the best organized, active and representative water user federations of Ecuador. Interjuntas-Chimborazo has an office of Legal Advice -which is unique in the whole country- and has successfully struggled for more transparency and equity in the provincial water administration. It is well recognized at both provincial and national levels through its extensive networks and alliances that enable it to actively engage in broader debates and decisions over water governance.

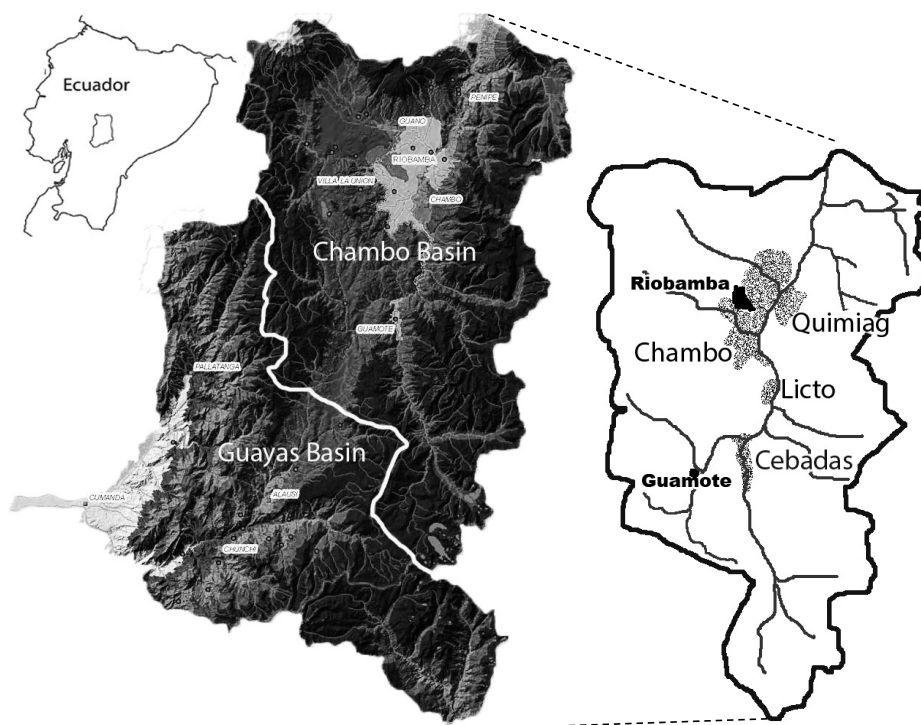


Figure 2 The province of Chimborazo, its configuration of river basins and location of state irrigation systems in the Chambo sub-basin (own elaboration based on material of SENAGUA and CESA)

1.3.3 National level: The Water Resources Forum

WRF is a multi-stakeholder water-centred platform that is hosted by the inter-institutional Consortium for Capacity Building in the Management of Natural Resources (*Consortio de Capacitación en el Manejo de los Recursos Naturales*, CAMAREN). Through this platform water user representatives have come together with NGOs and state agencies for the analysis of national and regional water policies and local water realities since the early 2000s. It has linked many local water user associations to other actors that operate at different levels ranging from the local to the global. It has enabled local peasant and indigenous water collectives to defend their water rights, local autonomy and irrigation systems in national water governance based on their identity as water users. In terms of achievements in the domain of water policies, WRF can be compared to CONAIE despite their marked differences in history, structure, constituency and strategies.

1.4 Research themes addressed

1.4.1 Peasant and indigenous struggles

Communities throughout the Andes tend to have strong organizational structures and embedded forms of collective action that dynamically sustain their identity, their traditions and their access to key natural resources, especially land and water (Assies 2006, Baud 2006, Sosa and Zwarteveen 2012, Zoomers 2006). Many authors, have extensively studied the rural peasant and indigenous struggles in Ecuador. Thomas Perreault for instance studied how through the development of social capital, the consolidation of spaces and the creation of multi-scalar networks the residents of Mondayacu in the upper Amazon have defended their lands and played a key role in bringing about local rural development (Perreault 2003a, 2003b, 2003c). Deborah Yashar analysed how identity has come to play a key role in the political mobilization of the indigenous peoples (Yashar 2005). Tanya Korovkin has studied how local communities struggle for- and are inserted in larger processes of (rural) economic development (Korovkin 1997a, 1997b, 1998, 2000, 2001, 2003). Anthony Bebbington focused on how second tier organisations and federations were coproduced with external support and came to play a key role in bringing about local and regional rural development (Bebbington 1997b, 2001, Bebbington and Perreault 1999, Carroll and Bebbington 2001). Mark Becker analysed the historical development of the Ecuadorian indigenous movement (Becker 2004, 2007, 2008). In another important contribution Robert Andolina, Nina Laurie and Sarah Radcliffe (2009) analyse how indigenous development has been shaped through the interplay of local and transnational actors in different areas such as education, water governance and gender (see also Laurie, Andolina and Radcliffe 2005).

The scholarly attention for the social and developmental side of water user organisations in Ecuador has received relatively less attention except for the work of Rutgerd Boelens and the international WALIR/Water Justice network, which has produced many studies on water in (amongst others) this country¹². Other studies that have explored water user organisations were framed in larger rural development research programs such as Andolina (2012), Andolina, Laurie and Radcliffe (2009), Carroll and Bebbington (2001) and Perreault, Bebbington and Carroll (1998). In these studies on water user organisations little explicit attention has been given to how water users engage in ‘scalar politics’ through the mobilization of social capital to a) maintain their irrigation systems functional, and b) defend their water rights in regional and national policies. This study addresses these two issues and contributes to a better understanding of how water users,

¹² The main objective of the network is to contribute to more water justice – in the form of democratic water policies and sustainable development practices that support an equitable distribution of water through capacity building activities and the exchange of ideas, research results and insights that focus on water accumulation, conflicts and civil society action in water governance (see www.justiciahidrica.org). Publications of this network include amongst others Boelens 2008b, Boelens 2008a, Boelens, Bustamante and Perreault 2010, Boelens and Doornbos 2001, Boelens and Getches 2010, Cremers, Ooijevaar and Boelens 2005, Garcia 2010, Gaybor 2008, Gaybor 2010, Isch and Gentes 2006, Ruf 2000).

as a specific group of the peasant and indigenous population, consolidate local organisations and develop political agency at local, regional and national level.

The focus of both Thomas Perreault and Anthony Bebbington on social capital and scale to analyse the development of peasant and indigenous communities' struggles in Ecuador was important for informing this research. They analysed how indigenous and peasant organisations and federations developed at different scales and show how these became important agents of local rural transformations that favoured the position of these groups economically and politically. In these struggles, strategic alliances with NGOs, state agencies and other grassroots organisations have been pivotal. This thesis builds on these conceptions but also goes beyond them in the following ways.

First, many of the above mentioned authors and work on rural peasant struggles focus on the community, the organisations and institutional networks. In doing so the role of individuals and especially grassroots leaders in these networks is not explicitly attended. Ethnographic work on social movements such as that of Marc Edelman (1999, 2009) point at the important role these individuals play for the defence of grassroots interests (see also Baud and Rutten 2004, Becker 2004). This focus also runs through the analysis of chapter 5 and 6 of this thesis.

Second, the role of NGOs in local rural development has received much attention in the work of Anthony Bebbington, Thomas Perreault, Marc Edelman, Robert Andolina and many others. The role of NGOs in the coproduction of grassroots organisations and the defence of the latter's interests in regional and national politics is well established by these studies. An analysis of the intervention methodologies of NGOs and how these shape local organisations and their networks has received less attention. This thesis addresses this specific issue and pulls insights from the irrigation interventions literature in the Andes (Boelens and Hoogendam 2002, Gutierrez 2005). Through the reconstruction of how the local, regional and national water user based organisations consolidated and operate, this study brings some of the processes, achievements and tensions that emerge in the collaboration between user organisations and NGOs to the fore.

1.4.2 Users' participation in water governance

In this thesis I conceptualize water governance as a contested process. Governance refers to the processes that define 'how organisation, decisions, order and rule are achieved in heterogeneous and highly differentiated societies'(Bridge and Perreault 2009:476). As such it reflects and projects economic and political power through decisions about the design, manipulation and control of water related socio-natural processes (Rap 2004, Wester 2008). Following Bridge and Perreault (2009) this leads me to understand water governance not as the 'governance of water' but as the processes of 'governance through water'. It refers to the functions of government and to the relations between government, non-governmental and user-based actors and agencies. It follows that participation of stakeholders in governance is relevant in terms of its capacity to change existing constellations of organisations, decisions, order and rule that are constructed around

water. The recognition of power is central to this conception. Following Lukes (2005), I consider power as the capacity ‘to make or to receive any change, or to resist it’ (p. 478). As such it is a capacity to act and exercise agency over- or with others in order to challenge or confirm the status quo (Gaventa 2006).

In international policies and literature much attention has been given to the participation of users in water governance. Local irrigation management has been discussed since at least the late 1970s. Initially much attention was given to understanding why state managed irrigation systems performed poorly and much blame was put on inefficient bureaucracies (Repetto 1986). Inspired amongst others by studies on community managed irrigation schemes, the creation of water user associations in state managed irrigation systems was promoted internationally since the late 1980s. The international funding of irrigation management transfer programs (IMT) was an important factor that triggered the formation of water user organisations that took over local irrigation management responsibilities in many countries (Rap 2006). IMT was informed by the recognition that organized water users can administer, operate and maintain their own irrigation systems (Ostrom 1990, Uphoff 1986). From a policy perspective, it was promoted as a mechanism to improve irrigation management by reducing the role of ‘inefficient bureaucracies’ and increasing ‘self-management’, while also decreasing state expenditure (Vermillion 1997). From a development perspective local water user organisations were seen as a tool to promote local agricultural development and the empowerment of organized civil society (Boelens and Hoogendam 2002).

The different contributions, debating water rights and empowerment, in Boelens and Hoogendam (2002) are an important contribution to this field. They give important insights into how peasant and indigenous communities participate in the (re)creation of local irrigation systems and water rights (defined as a social relationship that mediates power relations around water) in the Andes (see also Guillet 1992, Mitchell and Guillet 1994). Gerbrandy and Hoogendam (2002) for instance highlight the importance of collective action by showing how communities and individuals created hydraulic property in the extension and rehabilitation of two irrigation systems in Bolivia. Hendriks (2002) points to the importance of understanding and establishing normative and socio-organizational issues as essential cornerstones for the success of any external (NGO or state) intervention in irrigation systems (see also Hoogesteger 2013b). Boelens and Zwarteveen (2002) bring the attention to the gender dimensions of local water rights showing that this issue has been neglected in most intervention processes.¹³ In Boelens (2002), the case study of the Licto irrigation system in Chimborazo shows how peasant and indigenous communities organized and got empowered through the struggles that led to the creation of their irrigation system. In the process they challenged the state, strengthened the local community structures and changed local power relations.¹⁴ Claire, Gutiérrez and Hoogendam (2002) show how intervention processes in existing irrigation

¹³ See also Vera-Delgado 2012, Vera-Delgado and Zwarteveen 2007, Meinzen-Dick and Zwarteveen 1998, Zwarteveen, Roth and Boelens 2005.

¹⁴ See also Gelles 2000, Perreault, Bebbington and Carroll 1998, Ploeg 2006, Vera Delgado and Zwarteveen 2008, Verzijl 2007.

systems get shaped by existing normative frameworks (see also Gutierrez 2005). Both Apollin (2002) and Boelens and Doornbos (2002) show how the normative frameworks that mediate access to water and the right to participate in decision making are (re)constructed and adapted through contestations and negotiations between actors with different powers.¹⁵

This thesis contributes to the existing literature and analyses how, in two large supra-community irrigation systems of a few thousand water users and irrigated hectares, peasants and indigenous users actively participate in defining local water governance. It explores how peasant and indigenous communities transform social capital in their water centred organisations and how social capital is mobilized outside the group boundaries in and amongst a multitude of state and non-state actors at multiple scales. It shows that these external ties are of great importance for peasant and indigenous communities in their struggles to gain and perpetuate their irrigation systems, access to water and political agency at broader scales.

Beyond the local level, increased water user participation has received much attention through the wide international reference to a) the principles outlined under Integrated Water Resource Management (IWRM) (GWP 2000, Molle 2008), b) the principle of subsidiarity (Bakker 2008, Moss and Newig 2010), and c) multi-stakeholder platforms as participatory governance tools (Warner 2007). This has brought about the implementation of programs as well as legal and institutional water reforms that stipulate broader participation of local governments and stakeholders (Merrey et al. 2007, Mollinga and Bolding 2004). Many of these reforms and participatory spaces have been conceptualized as mechanisms to streamline decision making for more effective (often top-down) policy implementation (Sze et al. 2009, Wester et al. 2008). Yet much depends on how the mechanisms for participation are established and how power is distributed (Clever 1999, Franks and Cleaver 2002, Wester, Merrey and de Lange 2003). State policies that stipulate increased levels of user participation tend to project and reaffirm established vested interests, imbalances in power and histories of social exclusion in the new institutional frameworks (Waalewijn, Wester and van Straaten 2005).

Water users and civil society do not only participate in political spaces that are opened by state policies and programs, but are actively and continuously creating their own- and contesting the existing- political spaces at multiple scales of water governance (Assies 2003, Bakker 2010b, Boelens, Bustamante and Perreault 2010, Harris 2011, Miroso and Harris 2012). These strategies include local struggles such as those depicted in the cover picture of this chapter, but also the creation of regional federations such as Interjuntas-Chimborazo (Hoogesteger 2012a), temporal regional alliances such as the ones that emerged around the water wars of Cochabamba (Assies 2003), national water users movements (Perreault 2008) and the articulation of transnational movements such as the ‘water as a human right’ movement.

¹⁵ See also Apollin and Boelens 1996, de Vos, Boelens and Bustamante 2006, Zwartveen, Roth and Boelens 2005.

Grounded in the notion that water governance is politically contested (Mollinga 2008) - and that water users are not passive 'objects'; but active subjects (Boelens 2008a, Ploeg 2008)- this thesis will contribute to a better understanding of how the marginalized peasant and indigenous water user groups struggle for their demands through the (re)creation of space(s), networks and alliances in regional, national and in some cases international water governance. These insights will contribute to the debates on how users can bring about progressive change and equity through increased user participation from the bottom up.

1.5 Research objectives and questions

Having briefly sketched the context, case studies and debates that will inform the main threads of this thesis, I now turn to the main objectives and questions. In a nutshell, the main objective of this study is to better understand how peasant and indigenous collectives organize and strategize to gain voice in local, regional and national water governance processes to attain and maintain access to irrigation water and water related rulemaking in the Ecuadorian Highlands. A better understanding of these processes will contribute socially and scientifically in the following ways.

First its objective is to contribute to on-going processes on reflection amongst the organized water users -in Ecuador, the Andes and beyond- and to provide inputs for the discussion on the important role autonomous organisations, networks and alliances play in terms of gaining access to- and maintaining irrigation systems and related water flows. At a broader level it will contribute to processes of reflection through which water users can better understand the ways through which -as grassroots- they can become participants in water governance decisions through bottom-up initiatives.

Second, this study will be of use to NGOs, international donor organisations and policy makers that aim to support and empower peasant and indigenous communities to become active participants in rural transformations. For those involved with the peasant and indigenous organisations studied here it will be a way to look back at their interventions, some of its important achievements, pitfalls and challenges. This can be insightful for the future design of policies and interventions. For those not directly involved in the described cases but actively engaging with grassroots struggles at different levels it can show some of the processes through which they -as external actors- can support peasant and indigenous organisations to become active participants of their own development.

Third, academically this thesis aims to contribute to a better understanding of peasant and indigenous struggles both in Ecuador and beyond. The focus on the political construction of scale through social capital and normative frameworks that I use to understand organisations and networks (see chapter 2) will further the academic debate on these topics with insights from the analysed struggles for water and voice. Another academic debate to which this thesis aims to contribute to is -as mentioned above- the field of water governance. In this field the specific contribution will be on the debate on participation 'from below' bringing additional new views on the changing roles of the different actors involved in these processes.

The above-mentioned objectives will be addressed by responding the following main research question:

How have peasant and indigenous communities developed multi-scalar political agency in water governance to gain and maintain their water access and related rights in the Ecuadorian Highlands since the 1980s?

This main research question will be answered by addressing a number of sub-questions.

The development of political agency from the grassroots does not take place in a vacuum. It has to be constructed by water users that operate in a specific socio-political and legal context. State agencies, administrative boundaries, legal frameworks, policies and their dynamics are structural elements that influence the possibilities and ‘room to manoeuvre’ of water users and other state and non-state actors. With this background the following sub-question -which is answered in chapter three- is posed:

How did the neo-liberal water policies of the 1990’s affect the development of multi-scalar organisations that demand and defend the water rights of peasant and indigenous communities in the Ecuadorian Highlands?

In order to gain access to water for irrigation, peasant and indigenous communities have to collaborate. Larger irrigation systems demand supra-community collaboration between communities that at times have conflicts over religious, political, ethnic or other differences. Only if organized are they able to claim for the allocation of water and the construction of their irrigation systems. Once water and infrastructure are obtained collaboration in water user associations and water management skills are needed for managing the irrigation system and ensuring water delivery (see for instance Ostrom 1990, Vos 2002). In order to defend and maintain their water and modernize or expand their irrigation systems alliances with NGOs and state institutions are needed. Collaboration within water user associations and with external actors is analysed in this thesis through social capital which leads to the following question, which is answered in chapter four through the analysis of case studies of the Guanguilquí-Porotog and Pillaro Ramal Norte irrigation systems.

How do peasant and indigenous communities through their supra-community water user associations transform (mutate and form new) social capital that enables them to maintain both internal collaboration as well as alliances with external actors to create and sustain their irrigation systems?

Once water user associations have been created to manage their irrigation systems, these often become part of broader networks and alliances. Through these, users engage in water governance at regional and national scales to defend their water rights while at the same time reaffirming the local. One of the strategies used to consolidate these broader networks and develop regional and national political agency is the creation of water users organisations federations. An important water user federations in the Ecuadorian Highlands is Interjuntas-Chimborazo, which is analysed in chapter five based on the following question:

Which processes led to the creation of Interjuntas-Chimborazo as a new regional federation for the defence of the water rights of peasant and indigenous communities; and how has it evolved and developed political agency since its creation in 2002?

NGOs have played an important role in supporting the creation of water user organisations and federations not only through direct interventions in these organisations but, importantly, also through capacity building activities and the creation of multi-stakeholder platforms, forums and related networks. These bring together representatives of organized water users, state agencies, universities and NGOs at regional and national levels. The Water Resources Forum (WRF) is one of the broadest water centred policy advocacy multi-stakeholder platforms in Ecuador and has booked important achievements in national water policies while also empowering local water user organisations. Based on the following question this platform is analysed in chapter six.

How has WRF developed and evolved as an important actor that defends the interests of- and empowers- organized water users while striving for the inclusion of progressive proposals in national water governance?

In the analysis of the above mentioned case studies and leading sub-questions -and to inform the main research question- special attention will be given to a) how water user engage in the politics of scale; b) how social capital is transformed; c) the relation between the grassroots organisations and NGOs; and d) the role of the leaders of the studied organisations, federations and networks.

1.6 This research in context

1.6.1 Embedding of this thesis in my broader research

This thesis, although now reshaped towards the form of a book, is based on a number of publications and research material that I have elaborated and published in the past years of my research journey (see annex A). The key publications that form the basis for this thesis are about my investigations with water user associations and federations in Ecuador but this research is embedded in a broader academic and action research context that has shaped my interest in multi-scalar water governance.

My research interest and engagement in water governance in general and water users and their organisations more specifically started during my BSc and MSc in Tropical Land Use (now International Land and Water Management) at Wageningen University, in the early 2000s. It was deepened during my MSc thesis work in Mexico (Hoogesteger 2004) and Iran (Hoogesteger 2005).¹⁶ I graduated at Wageningen University in 2005, with a major in Irrigation and Water Engineering and minors in Forestry; Rural Sociology; and Land Degradation and Development. After graduation I worked for three years (2006-2008) as Researcher and Lecturer at the department of Irrigation and Water Engineering

¹⁶ Both theses were done within the framework of the 'Comprehensive Assessment of River Basin Development and Management' programme of the International Water Management Institute (IWMI).

of Wageningen University. In this position, I built on my investigations on groundwater- and river basin management in Mexico and Iran through both teaching and research.

This work on users organisations and collective action made me realize that -beyond formal policies, bureaucracies and the state- water user organisations are of key importance for the advancement of more inclusive and democratic water governance. In line with this interest for organized water users, in 2006, I joined Flip Wester in the study of the rise, consolidation and development of the user based aquifer management councils (COTAS) in the State of Guanajuato, Mexico. The results of this research were published in *Natural Resources Forum*, (Wester, Hoogesteger and Vincent 2009), *Hydrogeology Journal* (Wester, Sandoval-Minero and Hoogesteger 2011), and popular publications and conference papers. They also formed the basis for three co-authored book chapter contributions; Shah et al. (2007), Wester, Hoogesteger and Paters (2007) and Wester and Hoogesteger (2011).

My research on river basin management focused on the development trajectories of river basins and related policy and (individual and collective) grassroots responses. In Iran, I examined the historical development of the Zayandeh Rud basin, focusing on how both the state and water users strategically dealt with a long term drought between 1999 and 2001. The result of this research were published in two co-authored publications in *Irrigation and Drainage* (Molle, Hoogesteger and Mamanpoush 2008, Molle et al. 2010).

In the past years, which have comprised my PhD period, I further deepened and explored my fascination for water users collectives and their role in water governance by doing research on water user organisations, water policies and water governance in the Ecuadorian Highlands. Ecuador was very interesting, given my previous research, because of the successes that organized water users have been able to achieve in the development of political agency at local, regional and national level. Results of this part of my research have been published as book chapters (Hoogesteger and Solis 2009, Hoogesteger 2013a), in the peer-reviewed journals *Society and Natural Resources* (Hoogesteger 2013b) and *Human Organization* (Hoogesteger 2012a, Forthcoming 2013), in a documentary film titled '*Defending water rights: the experience of Interjuntas-Chimborazo, Ecuador*' (accessible online in both Spanish and English)¹⁷, and a series of ten popular radio reports that were broadcast in the province of Chimborazo in 2011.

Beyond the research results that have directly become an integral part of this PhD thesis I have also worked with Rutgerd Boelens and others on the broader issues of water governance in Ecuador (see Annex A). The article titled 'Water reform governmentality in Ecuador: neoliberalism, centralization, and the restraining of polycentric authority and community rule-making' written with Rutgerd Boelens and Michiel Baud will be published in *Geoforum*. Also with Rutgerd Boelens and Jean-Carlo Rodriguez, I wrote a paper which will be published in *Capitalism Nature Socialism* titled 'Commoditizing water territories? The clash between Andean water rights cultures and Payment for Environmental Services policies'.

¹⁷ <http://www.thewaterchannel.tv/hn/videos/categories/viewvideo/1163/governance/defending-water-rights>

Another component of my PhD research and its outcomes is the book that I have edited with Patricia Urteaga, titled '*Agua e inequidad: Discursos, Políticas y Medios de Vida en la Región Andina*' (Water and Inequity: Discourses, Politics and Livelihoods in the Andean Region). This book brings together several theoretical and empirical studies on water struggles in the Andean region (Bolivia, Peru, Ecuador and Colombia) (Hoogesteger and Urteaga 2013). Besides this book's introduction and conclusions (which I wrote with Patricia Urteaga), the book also contains a contribution in which, together with Rossana Manosalvas, Milagros Sosa Landeo and Andres Verzijl, (my NWO-WOTRO funded project colleagues) we explore how in Peru and Ecuador water users defend their water security through a multiplicity of up-scaling strategic alliances.¹⁸

1.6.2 Embedding in networks and a broader research groups

This PhD thesis is embedded in the Water Justice network as part of the programme 'Struggling for Water Security: Social mobilization for the defence of water rights in Peru and Ecuador' (SWAS) that is funded by the Netherlands Organization for Scientific Research (NWO) through its department of Science for Global Development (WOTRO). This programme aims to broaden the existing knowledge on water users by better understanding the historical evolution and current development of new supra-local water user federations, in terms of their strategies, organizational practices and political significance for defending water security of peasant and indigenous communities in the Andes of Peru and Ecuador. This program has important action research elements and aims to give much of the results back to the objects of study through popular publications.

This thesis is about a part of these networks and their activities. I was introduced into these networks in Ecuador by organizing the WALIR international conference that was held in Cusco in 2006 and later by the implementation of Dutch funded capacity building activities with CESA and CAMAREN. This embedding in the CAMAREN/WRF networks enabled me to meet and create bonds of trust and reciprocity with many of the actors that later became my objects of study. This gave me as researcher a very privileged position. Since the onset I was introduced and incorporated into this network, its activities and dynamics. I contributed to these networks as capacity builder, participant in discussions and workshops, action research and the coproduction of popular publications. The trust that was created through these activities greatly benefitted my ethnographic work and analysis. In it, I also greatly profited from my native Spanish-speaking and Latin American cultural background as I easily blended into the local dynamics and subtleties of personal and institutional relations.

1.7 Methodology

This thesis is based on empirical material that was gathered during extended field work periods. The first time I visited Ecuador was during a very short one week visit at the end of 2007. It was followed by a five week visit to Ecuador in February-March 2008, during

¹⁸ This collective writing effort has informed and conceptually contributed to framing this thesis, even though a lot of the material has been left out of this thesis monograph.

which I did research in the Guanguilquí-Porotog and Pillaro irrigation systems¹⁹. In that same year in September another two week visit followed, in which I coordinated and taught in a capacity building programme on water governance and conflicts that was funded by the Dutch government and was carried out by Wageningen University together with CESA and CAMAREN. In January 2009, I once again travelled to Ecuador for a six months stay. The first five months of this visit I spent in Riobamba, where I studied and engaged with Interjuntas-Chimborazo and its close networks, both in the province of Chimborazo as well as beyond the province boundaries. The last month of this prolonged stay I spent in Quito to interview important actors related to national water policies and politics. In January 2010, I travelled to Ecuador again for five weeks focusing mainly on understanding the Federation of Indigenous and Peasant Irrigators of Cotopaxi (*Federación de Usuarios de Riego Indígenas y Campesinos de Cotopaxi*, FEDURICC). The final field work visit to Ecuador was a four months visit from December 2010 to April 2011 in which I returned once more to Riobamba to broaden my understanding of Interjuntas-Chimborazo and its networks. As part of my research I attended several meetings of WRF by following the leaders of the Interjuntas-Chimborazo, FEDURICC and their related partner NGOs. During my stays in Ecuador, I also returned to the Guanguilquí and Porotog irrigation systems and had several students do their internships in the Pillaro Irrigation System (see also detailed methodology for different chapters).

The study is based on qualitative data and follows an interpretive approach, which considers the meanings and interpretations given by social actors to their context and actions (including those of others) as constituting their social reality (Mason 2002). This includes the way I interpret my own observations, experiences and data. To collect the data I used several methodologies.

First, data gathering consisted of semi-structured interviews with water users, the leaders of the water user associations, practitioners of both state agencies and NGO and local researchers. The interviewees were selected through a snowball sampling methodology (Heckathorn 1997). With regards to this source of information, I am aware that building on memory and interpretations of social actors might be considered slippery terrain. Nevertheless I find it a very important source of data; and here I would like to quote Portelli (1991), in Edelman (1999), who states that:

The importance of oral testimony may lie not in its adherence to fact, but rather in its departure from it, as imagination, symbolism, and desire emerge. Therefore, there are no 'false' oral sources.... Wrong statements are still psychologically 'true' and ... this truth may be equally important as factually reliable accounts.
(p.51)

Second, I spent a lot of time 'following the actors' (Long 1992, 2001). In this sense I am grateful to all those people that let me join them in their day-to-day activities, meetings and work. I found out that through observation and informal talk and discussions during

¹⁹ This research was funded by Intermón-Oxfam.

these day-to-day activities important aspects of the reality I was researching came to the fore.

Third, another important source of information was action research and participant observation. With Interjuntas-Chimborazo I collaboratively engaged in organizing workshops, making radio reports, an audio-visual and in trying to find funds to finance the Office of Legal Advice. With the Water User Association of the Chambo irrigation system, I was taken along to all the negotiations and events that the water users organized to get their water allocation formalized. In informal settings, I often found myself engaged in deep discussions with many of the actors of the organisations and networks I studied. In WRF, I joined one of its thematic working groups while attending most of its events and gatherings. Through this mix of research methods I developed a detailed understanding of how different actors engage(d) in and shape(d) these organisations.

To order and interpret the data I reconstructed life histories of individuals and organisations. To do this the data from the different information sources and research methods were first triangulated to corroborate findings and test their validity (Lincoln and Guba 1985). Then the data were ordered through a historical reconstruction in which the strategies, processes, individuals and events that were key in the formation of the different levels of water user and mixed organisations were identified. Finally it is important to mention that through these data gathering methods, and through these sources of information the different case studies that I present in this thesis are the result of- and therewith constitute 'insiders stories'. In the paragraphs below I present a more detailed methodology for the chapters based on case studies which are chapters four, five and six.

1.7.1 Researching water user associations

In this thesis I undertook two case studies of supra-community irrigation systems that have similar production characteristics in the Ecuadorian Highlands. The Guanguilquí-Porotog in a predominantly indigenous area and the Pillaro Ramal Norte in an area of mixed mestizo and indigenous communities. The data of these case studies, which are presented in chapter 4, were gathered in 2008 and 2009 through fieldwork in the irrigation systems. Data gathering consisted of forty-four semi-structured interviews, four focused group discussions, and observations in the field and at nine community meetings. This primary material was supplemented by reviewing secondary material from IEDECA²⁰, CESA and other researchers who have worked in the area(s). Through the research design data were gathered from amongst the included actors only (water users and IEDECA/CESA's personnel). This results in an insider's story about social capital formation and the construction of the socio-technical spaces that are embodied in irrigations systems and their organisations.

To reconstruct the history of the irrigation systems and water user associations the interviewees were selected through a snowball sampling methodology. This started with

²⁰This non-governmental organization has worked for over 20 years with the communities of Cangahua on rural development based on learning and on joint efforts among communities and the institution.

personnel from IEDECA and CESA who had worked and/or work with the communities belonging to the above mentioned irrigation systems. From there, people that had been actively involved in the water user associations at different moments in time were selected and interviewed. During field visits to the irrigation systems with personnel from IEDECA and CESA, and with leaders of the water user organization, new interviewees were approached from among the water users. In addition, for the case of Pillaro, I supervised two students (Edwin Haasjes and Vincent den Ouden) who did their internship at CESA and worked in the Pillaro Irrigation System.

For the description of the short case studies, and to inform my understanding of broader processes that played out in irrigation systems, I greatly profited from the work of different MSc students who I supervised. For El Pisque irrigation system, I used the detailed case study description of MSc student Yisenia Tiaguaro (WUR) (Tiaguaro-Rea 2012) (supervised with Edwin Rap), while the thesis of Marcel Kellner (CEDLA) (Kellner 2011) (supervised with Michiel Baud) and Citlalli Aheli Gonzalez (WUR) (Gonzalez 2009) (supervised with Margreet Zwartveen) provided extra information on the Quimiag and Chambo irrigation systems. The detailed case study presented by Arroyo, García and Robles (2011) was also used in this chapter.

1.7.2 Researching water user federations

Chapter 5, which analyses Interjuntas-Chimborazo is based on three fieldwork periods in 2009 (six months), 2010 (one week) and 2011 (four months) in which I interviewed (ex-)staff of the Dutch based Netherlands Development Organization (SNV), the Italian based NGO Association for Cooperation in Africa and Latin America (*Associazione di Cooperazione in Africa e America Latina*, ACRA), the French international NGO Agronomists and Veterinaries without Borders (*Agronomes et vétérinaires sans frontières*, AVSF), CESA, CAMAREN, the National Irrigation Institute (*Instituto Nacional del Riego*, INAR), the National Water Secretariat (*Secretaría Nacional del Agua*, SENAGUA), the Provincial Council of Chimborazo as well the leaders of 14 different water users organisations that are part of the constituency of the federation. During these periods I intensively accompanied both Carlos Oleas and Hugo Vinueza, Interjuntas' leaders, in their Interjuntas-related activities. I was given a key of Interjuntas' office where I shared my working space with the lawyers and secretary of the Office of Legal Advice of Interjuntas Chimborazo. This proved to be a perfect place for participant observation. I was able to accompany both Carlos Oleas as well as Hugo Vinueza to almost every Interjuntas-Chimborazo related meeting they had. I was often invited to attend meetings of WRF as well as meetings they had with other members of Interjuntas-Chimborazo, high officials of the SENAGUA, INAR and NGOs in both in Riobamba as well as in Quito.

The 'water team' of CESA-Riobamba as well as the Office of Legal Advice of Interjuntas oriented me during my first stay in Riobamba, opening the doors to many crucial contacts. I spent a considerable amount of time in the office of CESA in Riobamba with Silvain Bleuze of AVSF who directed most of the water programs that were implemented together with Interjuntas-Chimborazo; and with Hugo Vinueza who works as staff of

CESA in this same water unit. I accompanied Hugo Vinueza to meetings and field visits he- as staff of CESA and as vice-president of Interjuntas- had with water user organisations in the rural areas of Chimborazo.

For the case of FEDURICC (which I only briefly present in chapter 3) I visited the province of Cotopaxi on two occasions for two weeks to interview key people of the federation as well as of the state institutions and NGOs that were closest to this federation. To supplement my own data I supervised Mercedes Valverde who did a short case study of the FEDURICC to fill in the gaps I felt were still open in my data (Valverde 2010).

1.7.3 Researching the Water Resources Forum

The data gathered for chapter six for a part greatly overlapped with the data gathering that took place for better understanding both the water user associations as well as their networks. As Interjuntas-Chimborazo, as well as CESA and AVSF, are closely related to- and active members of WRF, many of the data gathered while studying Interjuntas also gave great insights into how WRF works through and for its members. These data which consisted of participant observations, personal discussions with many of the members of WRF and action research, were complemented with in-depth semi structured interviews with staff of CAMAREN (8), CESA (7) and other core members of WRF (6). Additionally, people outside of WRF, but very active in the water domain in social movement organisations (3), NGOs (3) and SENAGUA (3) were also interviewed. These data enabled me to reconstruct the history of the development of WRF and to get an understanding of its day-to-day functioning, strengths and weaknesses.

1.8 Structure and chapters of this thesis

This introduction has presented the background, context, case studies and theoretical debates to which this thesis aims to contribute. Based on these, the objectives of this research were presented together with the main research question and the sub-questions that form the red thread of the empirically based chapters that follow. After this, the embedding of this thesis in my personal research path as well as in broader networks and research groups was described. The methodology of the study and specific case studies followed. In this last section of this introductory chapter I shortly present the outline and contents of the thesis.

Chapter two sets the theoretical and conceptual basis through which I explore the water user struggles for water rights and how they engage in scalar politics and jump scales through the consolidation of organisations and broader networks. This chapter opens with a short vignette that describes how the water users of the Chambo irrigation system engaged in a multi-scalar struggle to defend their historical water allocation. With this case as background, in this chapter, I first explore the concept of scale; how it is structured and how I understand the term scalar politics. I then shortly discuss the state as one of the strongest and therefore also contested scale in social life. I then turn my attention to the term of social capital which has greatly informed my analysis of how water use collectives are able to (re)construct their irrigation systems and engage in scalar

politics. After this, I explore how and why NGOs and leaders are important determinants of the shaping of water user based organisations at different levels. Finally, I present how the three organizational forms that are analysed in this thesis are conceptualized (water user associations; water user federations; and multi-stakeholder platforms and related networks).

Chapter three explores how the neoliberally informed water reforms re-scaled and transformed the state involvement in Ecuadorian water governance since the late 1980s. It explains how the state was decentralized and ‘rolled-back’ by dismantling the Ecuadorian Institute of Hydraulic Resources (*Instituto Ecuatoriano de Recursos Hidráulicos*, INERHI) and its responsibilities through institutional reforms, legal frameworks and IMT. I analyse the controversial Ecuadorian IMT programme that was funded and steered by the World Bank. Then I turn my attention to the efforts of NGOs that were involved in empowering the water users to manage their irrigation systems while also developing political agency at broader spatial scales through federations and platforms. I analyse how the confluence of these developments affected the (re)construction of multi-scalar organisations that as a movement demand and defend the water rights of peasant and indigenous communities in the Ecuadorian Highlands. This sets the policy and institutional context within which the case studies analysed in chapters four, five and six are placed.

Chapter four analyses how in Ecuador peasant and indigenous communities organized to gain and later maintain access to irrigation water and investments in infrastructure through the analysis of case studies of the Guanguilqui-Porotog, and Pillaro irrigation systems. In these irrigation systems, new autonomous supra-community water user associations were coproduced between organized peasant and indigenous communities and supporting NGOs based on the transformation²¹ of social capital. I describe how these organisations consolidated and argue that the support of external agents was important. In doing so, I explore the processes through which peasant and indigenous communities transform social capital in water user associations; and how these enable users to (re)create the local scale of irrigation systems by sustained internal collaboration, negotiations and contestations; as well as through alliances with external actors.

Chapter five analyses how Interjuntas-Chimborazo emerged, developed and sustains itself since the late 1990s. Its (re)construction resulted from the active engagement of water user associations in the development of regional political agency. This case study explores a) the actors and processes through which Interjuntas-Chimborazo established as a new regional federation for the defence of the water rights of peasant and indigenous communities, and b) how it has evolved and developed political agency since its creation in 2002.

Chapter six analyses how WRF developed and evolved as an important actor that defends the interests of- and empowers organized water users in national water governance. This

²¹ I use the term trans-formed social capital to indicate that it was 1) mutated from existing forms of social capital, and 2) formed into new structures of social capital around water.

chapter shows how this platform developed based on extended NGOs' networks that engaged in collective capacity building programmes. This network gradually expanded to include more and more actors of water user based organisations, state agencies and NGOs. The key to this development has been the organization of dialogues, capacity building programmes, research, workshops and national conferences that bring water related actors together. This chapter brings to the fore the internal dynamics that led to the creation and transformation of this national platform and its remarkable achievements in terms of empowering water users collectives and pushing forward policy proposals.

In the conclusions I answer the main research question of this thesis by bringing together the results of the foregoing chapters. Based on these I reflect on the objectives of this thesis as well as on the achievements, implications and contradictions that exist at the different levels of the organisations that conform the Ecuadorian water users movement. To do so, I discuss the role of water reforms in the rescaling of the state and how, through differently scaled organisations, peasant and indigenous users have consolidated a social movement, and discuss the important role of NGOs and leaders for the coproduction and recreation of movement organisations. Based on these I reflect on the implications this has for the theoretical discussions on scale and social capital. Finally, I point to some of the major opportunities and challenges with which water users, as well as practitioners, are confronted in the search towards more socially just forms of water governance.



Chapter 2: Scale and social capital in peasants' struggles for water in the Ecuadorian Highlands

I took this picture on June 12th 2012 during a public gathering in Molobog, Chimborazo, it expresses how through the mobilization of social capital local water users are able to engage in scalar politics to defend their access to water. In the picture, the president of Interjuntas-Chimborazo (middle left) shakes hands with the president of Ecuador, Rafael Correa (far right), while the president of the Chambo Irrigation system (far left) and the municipal president of Riobamba (middle right) watch. This presidential visit to the local Water User Association Chambo marked the successful end of the water users' struggle to have the historical water allocation of the Chambo Irrigation system legalized. The case illustrates how peasant and indigenous water users engage in scalar politics to defend their interests through strategies that link local water users to multiple local, regional and national actors. In this chapter, first the history of the abovementioned struggle is presented as the backdrop of the theoretical concepts that are used to understand these struggles.

2.1 The Chambo Water User Association's struggles for water

The Chambo irrigation system is the largest supra-community irrigation system of Chimborazo Province (see figure 2). At present it irrigates 5700 hectares that benefit seventy communities and over 10,000 water users in the rural areas close to- and around Riobamba. The construction of the irrigation system started in 1920 and has since then been gradually expanded and modernized by joint efforts of changing state agencies and the users. In 1966, INERHI took over its management. In 1995, the 82 water user organisations that had taken over the management of the secondary units of the irrigation system from INERHI federated in the Water User Association Chambo (*Corporación de Juntas de Regantes del Sistema de Riego Chambo*, WUA-CH). These water user organisations and the WUA-CH had been formed as part of an irrigation development project funded by the European Union and the Italian government. In the following two years the Regional Development Corporation of the Central Highlands (*Corporación Regional de Desarrollo Sierra Centro*, CORSICEN), which had replaced INERHI in 1994, gradually reduced its irrigation management tasks and in 1997 these were turned over to the water users (except the management of the main canal). That same year, WUA-CH led the first initiative to consolidate a federation of water users at provincial level (the first Water Users Federation of Chimborazo, *Junta Provincial de Usuarios de Riego de Chimborazo*, JPURC), and successfully lobbied for the creation of the Regional Development Corporation of Chimborazo (*Corporación de Desarrollo Regional de la Provincia de Chimborazo*, CODERECH) in late 1997. Later WUA-CH became a member of Interjuntas-Chimborazo (see chapter 5).

Upon trying to formalize their historical water allocation of 5,000 litres/second (l/s) from the state, the water users were allocated a mere 3400 l/s from the National Water Secretariat (*Secretaría Nacional del Agua*, SENAGUA) on September 8th 2008. In the process that followed between September 2008 and July 2009, WUA-CH strategized at different scales by mobilizing its social capital to get their historical water allocation back. From September 2008 to March 2009, a mixed commission that was formed by four water users' leaders of the Chambo system, two externally hired experts, two representatives of the national SENAGUA, one local representative of SENAGUA, one representative from the National Irrigation Institute (*Instituto Nacional del Riego*, INAR), and one representative of Interjuntas-Chimborazo assessed the case. It concluded that the irrigation system needed the 5000 l/s. The report on which this decision was based was discarded within SENAGUA and a new commission was installed to reassess the case. Yet, the users -while keeping engaged in the process with SENAGUA- also sought other means to struggle for their demand.

On March 26th 2008, in Colta, during a presidential visit to Chimborazo, the president of Interjuntas-Chimborazo handed over a letter to the Ecuadorian president Rafael Correa. In this letter the water users explained their problem and warned that they would go with a large commission to Quito and also have a demonstration in Riobamba if the problem was not solved rapidly and in their favour. As a response the Ministry of People and Citizen Participation (*Secretaría de Pueblos y Participación Ciudadana*, SPPC) also got

involved in the case and approached the water users asking them not to mobilize but to continue the negotiations with SENAGUA; now with the support of SPPC. This did not stop the water users from mobilizing to Quito with 400 people, while also holding a demonstration in Riobamba on the 30th of March 2009. A visit of the SENAGUA minister to the irrigation system followed on May 25th 2009. After the visit the minister promised to try to find a solution to the problem through a modernization of the system which would 'reduce their water needs/demands'. The president of WUA-CH expressed his rage as follows:

They lied to us; they have betrayed us when they gave us this water concession and now they seem to be playing with us. But this is no joke and I told the minister that we need at least 5000 l/s and that we will stand for this amount of water; we will fight for this water...

The case was discussed in a small meeting of Interjuntas-Chimborazo that brought together the leaders of all the provincial state managed irrigation systems. In this meeting the leaders resolved that if the issue would not be solved in favour of WUA-CH they would mobilize 'the whole province' as united water users that defend a 'legitimate and historical water right'.

While this process with SENAGUA lingered on, WUA-CH wrote letters to the president Rafael Correa and invited him to visit the irrigation system. On the June 12th 2009, Rafael Correa visited the irrigation system 'to see the progress that was being made with the lining of the main canal'²². He was received in Molobog by thousands of water users. On the podium the leader of WUA-CH, and the president of Interjuntas-Chimborazo were seated alongside president Rafael Correa and other high standing politicians²³. The first to speak was the president of WUA-CH:

... We, as water users are going through an internal problem that you might not know. [...] but this is our opportunity to tell you that we are very preoccupied [...] they [SENAGUA] reduced our water allocation by 1600 l/s. We have tried through commissions, reports and meetings to solve this problem as fast as possible yet, up until now, the water allocation is not solved and we are asking that the 1600 litres are given back to us... I would be very thankful, Mister president, if you could intercede on our behalf...

He was followed by the president of Interjuntas-Chimborazo:

Before starting I would like to adhere myself to the demand of my comrade... we have had this water sixty years... [...] We ask you for now, Mister President, that you intercede for us and that hopefully this same day this gets resolved...

Rafael Correa responded as follows.

²² In the period 2008-2009 the government invested 9 million dollars in lining the main canal of the irrigation system.

²³ See cover picture of the present chapter.

First of all, my apologies, only now I am getting to know of these problems of water... [...] I can imagine how you are feeling if they took from you 1600 litres of water. Already at this moment by telephone I have asked the Minister of SENAGUA to immediately brief me of what has happened, and personally I will see to it that the problem gets solved comrades. I beg you my apologies... [...] ... surely it must be an error... [...] I will myself take care of the problem, don't worry.

That very same day upon his return to Quito, the president summoned the Minister of SENAGUA for a short meeting at the airport. In the days that followed, one of the close advisors of the president was set on this case. On July 1st 2009, the advisor of the president together with the closest advisor of the Minister of SENAGUA visited the lawyer that had taken up the case of WUA-CH in Quito (also related to WRF). They presented and discussed the first draft of the new water allocation. On July 2nd 2009, the advisor of the president travelled to Riobamba to discuss the new water allocation with the president and directives of WUA-CH. That same day the water allocation was made official. It granted 5898.4 l/s to WUA-CH. This allocation meets the current demands and foresees for the expansion of the tail end of the irrigation system with 1700 hectares (Guano area).

2.2 Introduction to the theoretical framework

In this chapter I elaborate the theoretical lens through which I analyse how water users such as those of WUA-CH, are able to defend their water access, irrigation systems and right to voice at different levels of water governance. As shown by the illustration above, this is done through collective action and mobilizations; and by engaging, allying-with and pressuring individuals and institutions within broader networks. The framework that I present in this chapter builds on the conception of a) the social construction of scale, and b) social capital. Through the use of these concepts, I will present how in this thesis local water user organisations, provincial and regional water user federations and national water centred multi-stakeholder platforms and networks and their strategies will be interpreted.

In brief, water user organisations are structured in a nested hierarchy in which hydraulically based groups in irrigation systems (secondary and tertiary canal management groups) are a part of larger irrigation system wide water user associations. These water user associations are affiliated to provincial-level federations that are in turn part of national multi-stakeholder platforms and networks. This simplified outline is a good representation but it fails to show the processes that underlie the ways in which, through scalar politics, these levels of organization are (re)created through material practice and discourses. In the following sections, I first explore how scale is socially (re)constructed and contested (section 2.3). Then, I present how this (re)construction of scales can be examined through an analysis of how social capital is transformed and mobilized (section 2.4). Other important factors that have supported the water users to consolidate space(s) and jump scales are NGOs and popular leaders. These actors are shortly discussed in sections 2.5 and 2.6. Finally I present how I have come to understand

the water users movement and its organisations. I close the chapter by bringing these elements together in the summary.

2.3 Scale as socially constructed

The concept of geographical scale has received much attention in the social sciences as a lens or background in which human (inter) actions take place. In the most elemental sense scale is a 'socio-spatial level of analysis' used to understand the articulation of the organizing elements of spatial processes (Perreault 2003b:98). Within human geography the concept of scale has been used for 'understanding the processes that shape and constitute social practices at different levels of analysis' (Marston 2000:220). The central question that drives the inquiries into the production of scale is to get a better understanding of how and why scale matters for social, political and environmental processes.

2.3.1 Placing the debates on the social construction of scale

Scale has been discussed since the 1970s, mostly in terms of its political and economic dimensions. Initially theoretical attention for scale and scale politics emerged around the examination of how forces of capitalism were (re)shaping space. The role of the production of scales in facilitating these processes received special attention (Moore 2008). Scale has been understood within a context of capitalist production of space, where scales are socially produced through relations of production and exchange under capitalism (Swyngedouw 1997). Yet this politico-economic approach to scale was broadened in the early 1990s, to theorize the role of geographical scales as frameworks for a wide spectrum of social activities and struggles. These included those struggles for capital accumulation and state regulation, and also importantly those of social reproduction, contestation, oppositional mobilization and identity formation (Brenner 2001).

This broadening of the term and its use has led to a lively debate on scale. According to Richard Howitt (2007), initially, scale was analysed in terms of distinct and fixed ontologically given and hierarchically nested levels of analysis such as the local, regional, national and global. In this literature there was a tendency to charge the broader (or higher) scales (such as the global) as more powerful than the local. In the 1990s this fixity and hierarchy of scales was questioned as more discursive and relational ideas of scale emerged. Howitt (1993), for instance, questioned the idea of nested hierarchies and whether scales were ontologically given. In 1995, Neil Smith remarked that:

Geographical scale is socially produced as simultaneously a platform and container of certain kinds of social activity. Far from neutral and fixed, therefore, geographical scales are the product of economic, political and social activities and relationships... (Smith 1995: 60-61)

Likewise, in his contribution of 1998, Howitt poses that scale is not defined only by size (watershed, province, continent) and level (local, regional, global), but quintessentially as a relational element; bringing the attention to its social construction. A special issue

edited by David Delany and Helga Leitner (1997) entitled ‘Political Geography of Scale’ in the journal *Political Geography* further opened the debate. Delaney and Leitner (1997) argue, in their contribution to this special issue, that scale is socially constructed by actors engaged in political transformations. This can only be understood in the context of a theory of the social production of space(s) and place(s)²⁴ (Lefebvre 1991). Another important contribution that pushed the debate of scale towards an understanding of social construction and non-fixity was that of Swyngedouw (1997) who puts it at follows:

Spatial scalar configurations, whether physical, ecological, in terms of regulatory order(s), or as discursive representations, are always already a result, an outcome, of the perpetual movement of the flux of sociospatial dynamics. (p. 141-142)

Cox (1998b) pledged for liberating the concept of scale from an excessively areal approach that focuses on territorial space by arguing that networks of associations define the spatial form of scales. In doing so, he points to the great variety of ways in which scale can be ‘socially’ (re)constructed through associational networks, pulling the attention to the analysis of the relationships that emerge between groups. Another important contribution of his, is the attention to the fact that scales are not only ‘jumped’ upwards but also that in the process of scale structuration the local can be as powerful as the global; albeit in different ways. The focus here is set on understanding how scales are constituted, dissolved and contested rather than conceptualizing these as predefined arenas (Brenner 2001).

This initial work has led to a broader acceptance and commitment to a framework that conceives of scale as socially (re)constructed by the outcome of the tensions that exist between structural forces and the practices of human agents (Marston 2000). As Brenner (2001) asserts ‘the new lexicon of geographical scale of the 1990s has provided a powerful means to denaturalize, historicize and critically interrogate the very spatial units and hierarchies in which capitalist social relations are confined.’ (p.603). This has opened the field to the study of processes of rescaling – of capital, of the territorial state and of social power relations more generally.

An important conception in rescaling processes in the last three decades has been that of glocalization. This term was introduced by Erik Swyngedouw to the scale lexicon to point to two interrelated processes of scale structuration. The first is the restructuring of the institutional level from the national scale to simultaneously broader supranational or global scales and narrower or more local scales such as the urban, the body and others. The second, concerns the strategies of global localization of industrial, service and financial capital. These processes of glocalization often go paired with specific strategies of powerful actors to create and control specific forms of scalar fixity that impose a series of social practices (routines, norms and rules) and relations at a particular spatial scale (of capital, the territorial state and of social power) that is to their advantage (see Swyngedouw 1997). Scalar fixes organize hierarchies in which activities organized at

²⁴ Place is defined as a point or area on the Earth’s surface.

some scales tend to predominate over others. These bound political, economic and cultural activities in specific ways and are a way to exercise power. Nevertheless, 'repressive scalar fixes' are always subject to resistance by the subjects on whom they are imposed though a multiplicity of strategies which include amongst others the creation of space(s) (Perreault 2003b), the creation of alliances (McCarthy 2005), and the engagement in scalar politics (MacKinnon 2011).

In the conceptual debate about scale there have been some tensions. One is that between the fluidity and fixity of scales. The crux of this tension rests in the tendency for scales, once socially (re)produced, to be taken for granted as entities in which social relations unfold. This takes attention from the constitutive processes through which scale is actually produced and transformed (Moore 2008). Another criticism is that in many writings there is no clear definition of scale which is often used interchangeably with level (Brenner 2001). Thirdly the question of hierarchies and the tendency to assert the broader scales as more powerful has also been highly criticized (Marston, Jones III and Woodward 2005). Marston, Jones III and Woodward (2005) even suggested to promote a human geography without scale. They proposed to do so by moving towards 'flat ontologies' that focus on the multiple linkages between key actors and sites within 'horizontal' networks.

Another strain of geographers has stressed a post-structural approach to scale (see Delaney and Leitner 1997, Moore 2008). Their approach to scale is in understanding the performativity of scale as an epistemological construct that presents specific sociospatial orderings, rather than something that has an ontological existence (Moore 2008). The focus here lies on understanding how scales become representational devices or discursive frames that are used by different actors that seek to pursue a goal. From this perspective, Delaney and Leitner (1997) pose that the (re)construction of scale(s) is based on practical efforts and actions that aim to persuade, and convince others of the importance, specificity and difference specific scales make (see also van Lieshout et al. 2012). Therefore scale is conceived of as 'always emergent', being subject to on-going processes of becoming through the construction of social meanings, relations and identities; or as MacKinnon (2011) puts it:

Once scales are established through processes of social construction and reproduction, they exist independently of individual actors' conceptions of them.... [...] At the same time, of course, scales are only represented and understood through particular scalar narratives and discourses. (p. 28)

But how then are scales as both ontologies and as epistemologies structured and constituted? The next section addresses this question.

2.3.2 The structuration of scale as a socio-natural process

Scale structuration as both a socio-material ontology as well as an epistemology defines and is defined by four facets which are size (social group and place), level (local, regional, national) and relation (ties in and among different spaces and actors) and content description (what is the scale about and what does it deal with) (Howitt 1998).

Through the exercise of power in- and on these three facets it becomes an organizing element of human interactions. This conception is anchored in the idea that the (re)construction of scale constitutes -and is in-itself- a way through which interests are realized through the exercise of power, that is; the outcome of negotiations, alliances, struggles and compromise (Swyngedouw 2004). Neil Brenner (2001) brings some key ideas of the literature of scale production together in the conclusions of his paper. These can be summarized as follows (also see MacKinnon 2011, Marston 2000, Smith 1995):

- 1) Scales are shaped as dimensions of broader sociospatial processes such as social reproduction, state regulation, political contestation, consumption, grassroots mobilization and capital accumulation rather than representing inherent properties of spatiality.
- 2) Scales are inherently relational and are continually reworked through everyday social routines, practices, negotiations, conflicts and struggles in which the vertical relationships between the different levels of organization (local, regional, national, global) within one geographical scale matter.
- 3) Scalar relations are characterized as mosaics rather than as fixed vertical pyramids. They are structured through interlocking and superimposed scalar hierarchies in which socio-material processes evolve.
- 4) Scalar structuration can result into scalar fixes of ‘nested’ spatial hierarchies even though these are never accomplished ‘once and for all’. They are continually forged and remade.
- 5) Scales are (re)created (both epistemologically as well as materially) through the interaction between inherited scalar structures and emergent social and political projects. As such existing scalar fixes create a specific path-dependency on processes of scalar structuration and contestation.

One of the shortcomings of this approach is the lack of attention for the role of non-human actors such as technologies and nature in the structuration of scale. In much of the political economy literature, as well as in the poststructuralist approaches to scale, the non-human actors have been systematically under conceptualized. Recently calls have been made to bring insights from political ecology into the scale debate and the other way around (McCarthy 2005, Sayre 2005, Swyngedouw 2007). This work has contributed much to what has been termed the political ecology of scale (Neumann 2009).

For the study of scale in water governance related processes, attention for the characteristics of water and its flows and for the technologies that are used to utilize water and the power relations that emerge around it are of utmost importance (Bakker and Bridge 2006, Boelens 2008a). Wittfogel (1957) early work on the role of irrigation in the transformation and structuration of the state and society is illustrative even though the reference to scale is not explicit. Erik Swyngedouw (2007) more explicitly addresses how specific scalar structuration processes are deeply intertwined with nature in what he calls the ‘production of nature’. He shows how Franco’s specific scalar geographical project to modernize Spain rested for a great part on the reconfiguration and profound transformation of the socio-natures of water. The material and social construction of

technologies and the transformation of nature for controlling and utilizing water became a particularly effective strategy to change the Spanish society and landscape at different scales. Other important contributions in this field come from Karl Zimmerer's work on irrigation in the Andes (Zimmerer 2000, Zimmerer and Bassett 2003). Many other contributions on how scales can inform the study of water governance have followed (Cash et al. 2006, Lebel, Garden and Imamura 2005, Sze et al. 2009). In one of his most recent contributions Perreault challengingly poses that water governance 'is positively evangelical about the importance of hydro-social scale as spaces of policy implementation and political action. Water governance, in other words, 'is *all about scale*' (Perreault 2013 unpublished paper:5).

These contributions show how scale is not only socially produced. It is also materially (re)produced in nature and through nature and technologies. Once constituted these new socio-natures also become socially producing. New scaled socio-natures craft different power relations as they empower some while disempowering others (Swyngedouw 2007, Sze et al. 2009), becoming a means of social inclusion or exclusion (Norman and Bakker 2009). Geographical scales, even as they are engraved in social relations, technologies and nature, are always contested, reconstructed and transformed. The relative social power positions in these scales will vary substantially depending on who controls what at which scale. The continuous (re)scaling that has taken place in Ecuadorian water governance in the last thirty years is an integral part of strategies and struggles for control by differently scaled actors of state, non-state and grassroots organisations. These engage in processes of scale restructuration by challenging existing spatio-political hierarchies through scalar politics (Perreault 2003a, Swyngedouw 2000, 2003).

2.3.3 From the politics of scale to scalar politics

The politics of scale is understood here following Brenner (2000) interpretation of Lefebvre (1991) as: the political struggles within spatial scalar hierarchies that are oriented towards their reorganization, reconfiguration and even transcendence (p. 374). In the early discussions on scale the capacity of local actors to defend their claims was seen as greatly dependent on their ability to jump scales in hierarchically nested levels (Fox 1996). Cox (1998b) contributed to this debate by showing that 'jumping scales' cannot be reduced to 'simply moving from the 'local to the 'global'' (Jones 1998). He again points the attention to the ways in which through networks, actors get engaged, constitute, transform and transcend different scales. Through the politics of scale local actors can up-scale their struggles through a) the consolidation and control of new scaled spaces and place(s); and b) by forging networks with actors at different spatial scales. This enables them to access institutional, financial and political support; increasing their capacity to make political claims against other actors (Perreault 2003b:99). Yet 'jumping scales' is not only defined as a jump from the smaller to the larger scales; but also and often simultaneously in the reverse direction towards the 'more' local (Cox 1998b). In jumping scales users shift between centres of social power that have the potential to help them materialize the demands at hand. They often shift from those that have not been able (or cannot) help them with the demand at hand to those that can. In this way the necessary political space is created. Neil Brenner (2001) proposed to disaggregate the politics of

scale into a singular (one scale) and a plural meaning (across different scales) which he respectively termed ‘the politics of spatiality’ and the ‘politics of scalar structuration’.

James McCarthy (2005) however argues, based on his study of environmental NGOs and their engagement in struggles that imply reconfiguration of scales, that the above distinction is not stable and misses the precise strategies and evolution of some politics of scale. Taking up this critique Danny MacKinnon (2011) contributed to this debate by pointing to the fact that often scale itself is not *per se* the prime object of contestation between social actors, rather it is ‘specific processes and institutionalized practices that are themselves differently scaled’(p. 22-23). He proposes to move from the politics of scale to a specific meaning of scalar politics in which both the material and discursive processes of scale structuration are studied. First and importantly this notion replaces the implication that the politics of scale are fundamentally about scale; rather ‘political projects and initiatives have scalar aspects and repercussions’(p.29). In other words not all political activity and movements are necessarily concerned with scale even though reconfigurations of scales might be implicated. Second, scalar politics focuses on the strategic use of scale by different actors. Understanding how material expressions of power relations that become fixed in scale are epistemologically constructed and deployed in political projects as seemingly natural, normal and legitimate then becomes paramount for understanding scalar politics. A third aspect of inquiry into scalar politics which I add to the above conceptions is that non-human factors are also important elements of scalar politics. This notion is based on the insights of political ecology and the debates on socio-natures (Bakker and Bridge 2006, Swyngedouw 2007). Scalar constructions often rely simultaneously on the successful mobilization of social processes and of a multiplicity of non-human (f)actors; some of which elude human control (Bridge and Perreault 2009). Sharp distinctions between scalar structuration and the production of nature are therefore indefensible (McCarthy 2005).

2.3.4 Rescaling of the state

Much of the scale literature has focused on capitals and states as important structuring factors of scales, which are shaped mainly to ensure the on-going expansion of capital (Marston 2000). In the last thirty years a lot of attention has been given to better understanding how states have been re-scaled and changed through processes of glocalization and neoliberalization²⁵ (Bakker 2009, 2010a, Perreault 2005). These changes have brought about ‘a dramatic period of scale reorganization from both powerful as well as subaltern groups since the 1980’s’ (MacKinnon 2011:24). In the multiple spatialities that constitute social life, the state is one of the central structuring elements of a specific though always contested and process-based fixity. The result hereof is that many scales

tend to correspond closely to the nested organizational levels of governments... many of our most deeply embedded and operative notions of scale do correspond to long-established levels of government. (McCarthy 2005: 733)

²⁵ See chapter 3 for a definition and the processes of change that are usually associated with neoliberalism.

Therefore for powerful elites, as well as for counter movements and political projects, scalar politics are aimed at changing and or getting something from the government (often with important implications for scalar structuration of the state).

The modern sovereign state has shaped societies to such a degree that it is now an intrinsic and mutually constitutive part of them (Giddens 1990). The presence of the state looms over the everyday lives of individuals and organisations by establishing strong and weak as well as visible and invisible ties within societies, which Giddens (1990) asserts by stating that “disengagement from governmental systems is today well-nigh impossible” (p. 91). Through its organization, the state plays a dominant role in shaping socio-political and spatial scales through which configurations of people, institutions and landscapes get structured. As a result people and institutions are made to fit in a territory through different levels of state driven systems of power, control and monitoring (Brenner 2001, Lebel, Garden and Imamura 2005). The capacity and power of state institutions to define how scale is represented has overall far exceeded those of other actors. This capacity is created through policies, laws, programs, institutions, data gathering, media campaigns and the exercise of force that are deployed in a specific spatial confine.

The processes that have rescaled capital, the territorial state and social power relations more generally through the hollowing out of the keynesian development state and parallel processes of ‘glocalization’ in the last three decades, have triggered diverse changes in scalar configurations and their counter movements (Swyngedouw 1997). Although in Latin America much attention has been given to the hollowing of the state through neo-liberal policies and globalization processes, I concur with Mark Edelman (1999) who asserts that:

... even after more than a decade[s] of neo-liberalism, state agencies remain absolutely central points of reference, foci of demands, and sites of struggle, despite the undermining of traditional power centres that accompanies economic globalization... The state may have diminished its size and the scope of its activities, but it still remains a fount of resources [...] a potential source for specific problems, and an essential element in the political legitimation of ‘new social subjects’. (p. 187)

Even though in Ecuador -in at least the last two decades- the state has ‘rolled back’ and water users have gained access, control and power over new spatial and political spaces, the state in its different forms is still a central point of reference for forwarding demands and protests (Hoogesteger 2012a). Yet other social actors also take part in the construction of scale even through their agency is often restricted to contesting and modifying the dominant scalar frameworks imposed by states and capital (McCarthy 2005). This does not mean that the agency of other actors is not important both in state dominated scales as well as beyond these.

2.3.5 The focus on scale in this thesis

In this thesis the focus on scale is twofold. First, it aims to better understand how through processes of decentralization and glocalization, the state institutions that were charged with water management were rescaled since the 1990s under the influence of neo-liberally inspired water policies. My interest is on how through these processes political space was created for NGOs and autonomous water user associations in the irrigation domain. Second, it aims to understand how the above mentioned scalar re-configurations of the state and other actors interacted with processes through which peasant and indigenous communities structured a multi-scalar water centred grassroots movement in Ecuador. In this analysis the processes of scalar structuration ‘from below’ will be conceptualized as a result of -and platform for- struggles for access to irrigation water and participation in broader water governance domains. Special attention will be given to the processes of coproduction between NGOs and peasant and indigenous groups and organisations at different scales. Scalar structuration and reproduction ‘from below’ and how these have become a multi-coloured -and at times counterhegemonic- movement in Ecuador will be analysed through the concept of social capital as elaborated below.

2.4 Social capital as a structuring element of scale

If space, place and scale are socio-materially constructed, then social capital is a useful concept to understand how these are (re)constructed (Bebbington and Perreault 1999, Perreault 2003d). The concept of social capital offers a useful analytical tool for understanding how people collaborate and come together around shared interests; in this case water. In this section, I explore this concept to better understand a) ‘local’ collaboration within water user associations (that are concerned in first instance with the administration, operation and maintenance on an irrigation system to ensure sustainable water delivery), and b) the ‘broader’ alliances of collaboration in water user federations, platforms and networks that are mainly concerned with the representation of interests and the development of political agency at different scales.

In sociology the term social capital was developed by Pierre Bourdieu (1977) and later James Coleman (1990) as a way to better understand how and why individuals benefit from social relations at a micro-scale. Through the work of Putnam (1993) the term was extrapolated to the analysis of characteristics of social structures and civil society organization. Amongst others, he argued that in societies that are more authoritarian and vertical lower levels of trust amongst citizens prevail, hampering the capacity for collective action. In the prevalence of more horizontal social structures and higher levels of trust amongst individuals, institutions and groups, also higher levels of collective action prevailed. These in turn resulted in more inclusive economies and governance structures. In the years that followed social capital has come to be seen as a framework for ‘analysing the functional value of social relations and organizational networks, as well as their influence on economic outcomes and state accountability’ (Perreault 2004:329).

This conception led, amongst others, to the inclusion of social capital in development discourse and practice since the 1990’s (Bebbington 1997b, 1998, Rydin and Holman 2004, Whittaker and Banwell 2002). Social capital development is seen as a potential

means through which traditionally marginalized groups can build and use other forms of capital and more effectively make their claims on other actors to establish and defend their right to access other capitals. It can, for instance, enhance the protection of natural capital both from internal as well as external threats of resource capture or degradation/overuse through the enforcement of rules and sanctions. It can help shift the relations between civil society and state (and related allocation of state resources); help poor people to get better prices for their products by changing market relations; and build human capital through networking, education and capacity building programs (Bebbington 1999).

Social capital is engrained in the structure of relationships and, as such, can be defined as 'the ability of actors to secure benefits by virtue of membership in social networks or other social structures' (Portes 1998:6) and therefore 'to possess social capital, a person must be related to others, and it is those others, not himself, who are the actual source of his or her advantage' (Portes 1998:7). The motivation to make resources available and support others are not uniform and are usually related to the presence of both trust and reciprocity which are mediated by norms. In line, Putnam (1993) defines social capital as the stock of 'norms of reciprocity and networks of civic engagement'. Reimer et al. (2008) build further on this definition and argue that trust and reciprocity are a consequential component of the normative structures that define social relations. Normative structures maintain and organize the connections in these networks by establishing 'reasonable' expectations concerning what others will do through 'systems of sanctions and incentives that ensure consistency in those actions' (Reimer et al. 2008: 259). Furthermore these same authors categorize four different kinds of normative structures that organize and guide social relations through which people accomplish tasks, legitimize their actions, structure their institutions and distribute resources. These are (p. 261-263):

- Market relations: Through these relations between relatively free actors people exchange goods and services and in doing so build, create and maintain relations of trust.
- Bureaucratic relations: These are often impersonal and formal legal relationships based on generally applied principles, hierarchies and status positions through which rights and entitlements are regulated between social actors. The legitimacy and implementation of these rules form an important element of trust building amongst social actors.
- Associative relations: These are based on shared interests and the common contribution to shared goals through different forms of collective action.
- Communal relations: These are based on a strong sense of shared identity based on, for instance, location, birth, ethnicity, intensely shared socialization. The rights and obligations are closely linked to this identity. Generalized reciprocity and collective action are important in these relations which is mostly maintained through the exchange of favours and the reinforcement of identity.

Once social capital is established in either one, or a multiplicity of its forms, it can, according to Portes (1998) have three different yet complementary functions which are: a) a source of social control and enforcement of the shared normative framework, b) a source of support from other members of a defined and bounded group, and c) a source of benefits through broader extra-group networks. Yet, the existence of social capital does not mean that it is also mobilized and used (Anthias 2007). Thus, although networks might exist it does not mean that they are automatically translated into a group and/or individual advantage.

Social capital is unequally available to different actors in a network. The structures of norms and networks as well as power positions of groups and individuals determine if and how social capital can be used/mobilized. Therefore the use of social capital by actors can be impaired by their position and power in a network; their knowledge and capabilities about the networks; and their ability to operate effectively within its normative structures. Additionally structural factors such as political influence, costs, lack of resources, racial and economic discrimination, distance, and level of education also lead to differentiated possibilities of mobilizing social capital in a network; a failure to do so often results in exclusion and marginalization (Anthias 2007, Reimer et al. 2008).

Although social capital differentials can form a source of exclusion and marginalization as explained in the section above, it can also serve as source of solidarity for groups to move along shared objectives and based on collective action challenge existing power relations and normative frameworks. To better understand the creation of- and the different functions of social capital as a source of community, solidarity and collective action, Putnam (2000) introduced the terms bonding and bridging, and later Rydin and Holman (2004) introduced the terms linking and bracing which are defined as follows:

- Bridging: Refers to the establishing of ties of collaboration for getting ahead along shared goals across groups despite marked differences and sometimes conflicts across other social ties such as those established by ethnicity, political orientation, territoriality or religion.
- Bonding: Bonding refers to ‘inward looking’ ties of people that are alike and share a common group identity and or goal. These relations are mediated by a shared normative framework that establishes relations of trust and reciprocity among group members. Bonding and bridging are not mutually exclusive as people usually bond along one social dimension while they bridge across others in a continuum of social relationships (Ryan 2011).
- Linking: Refers to the creation of ties with actors that are external to the defined group. These ties with multiple actors often cross different scales and serve to maintain a bonded group through external support and recognition.
- Bracing: Bracing capital is seen as the establishment of targeted links. It is usually boundary defined through alliances that form in a network to work-on or solve a specific problem at hand.

Bonding and bridging ties are above all important for the development of internal cohesion in groups. Linking and bracing ties are much more relevant and important for

the development of social capital with actors that are external to the group; but that are necessary for achieving the group's goals.

How social capital and these different functions of it are developed within groups and at broader levels has received less attention. Portes (1998) points us to the following:

social networks are not a natural given and must be constructed through investment strategies oriented to the institutionalization of group relations, usable as a reliable source of other benefits. (p.3)

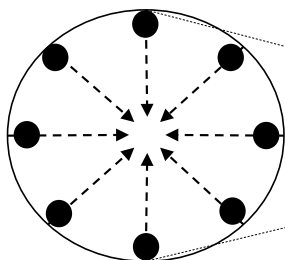
Jonathan Fox identified three different pathways through which civil society organisations can be (re)constructed (Fox 1996). The first is the convergence of civil society and state institutions whereby individuals inside the state use the resources at their disposal to help strengthen rural organisations and their networks. Secondly he identifies the coproduction between local and external civil society organisations (such as churches and NGOs). In this case the latter engage in efforts to help build the capacities and networks of the local groups through funding, capacity building programs and political support. The third one is autonomous mobilization by local groups; a strategy that often leads to the other two forms of social capital formation.

Yet, social capital is not developed or created in a social or material void. Associational life, networks and thus social capital are affected by state or external societal actors that "can provide either positive incentives or negative sanctions for collective action" (Fox 1996:1090). Additionally, as Ryan (2011) rightly indicates, although social capital can be developed, it always builds on, expands and alters previously existing social relations. As such social capital is mutated from one set of social relations and inserted into new ones. In this process, its underlying norms are changed and inscribed into new normative frameworks and social relations in a process I have termed 'social capital transformation'. This term points to both the mutation as well as the formation of relations of trust and reciprocity between groups and individuals.

In the whole framing and discussion on social capital and its (re)production, no attention has been given to the role of non-human actors in forming, fostering and/or restricting the development of social capital. Nevertheless, resources, natures and technologies also play an important role both materially as well as epistemologically in the mediation of human relations (Swyngedouw 2007). For instance water technologies and water flows create material links between water users. The specific design of the water technologies are created by- and have- consequences for how people relate for managing and controlling these technologies and related water flows. Different technological designs can also foster or restrict the development of relations of trust and reciprocity amongst users (Bolding, Mollinga and van Straaten 1995).

But how do these processes of social capital transformation work within and around water user organisations at different scales? I address this question in the following section by focusing on two distinct forms of social capital in irrigation systems: these are inward looking- and outward looking social capital (see figure 3).

Inward looking social capital
within the confines of a group:
bonding and bridging



Outward looking social capital
with external actors: linking and
bracing

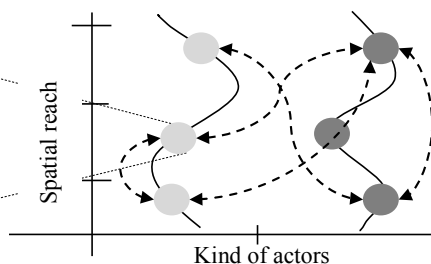


Figure 3 Schematic representation of inward and outward looking social capital (own elaboration)

2.4.1 Inward looking social capital

Inward looking social capital refers to the ties and bonds of reciprocity that bind a group or association together. These ties have potential benefits for both the individuals that are part of the association as well as for the group as a whole. Peasant and indigenous peoples need associations that can mobilize collective action in order to autonomously manage irrigation systems. Because of their size many irrigation systems need supra-community cooperation to coordinate water delivery and administration, operation and maintenance tasks. The water rights frameworks that consolidate the rules of interaction in irrigation systems, are based on community and associational relations which define according to Boelens (2008a) two different kinds of rights which are (p. 59):

- Access and operational rights that define access to water and infrastructure and the operation of the system and entail the right to: withdraw and use part of the water flow; use the water intake, conduction and distribution infrastructure to get water to a plot; access information on the management of the system; be eligible and occupy positions in the water users organization, to represent users and to implement decisions regarding water distribution and system management including penalties and the enforcement of rules; and the right to take part in social activities related to the system's water management.
- Control rights which grant individuals the right to take part in collective decision-making over: management and system operation (water distribution, irrigation schedules, flow rates, water use purposes, organizational forms, posts, responsibilities); the inclusion and exclusion of members; changing or expanding the hydraulic system and irrigation technology; transferring the rights to third parties; and changing the internal rights and regulations.

In most irrigation systems where external interventions catalyse processes of change or the construction or modernization of the hydraulic infrastructure, bureaucratic relations and normative frameworks tend to be externally imposed (Boelens and Doornbos 2001,

Boelens and Hoogendam 2002). Nevertheless, water users assimilate, incorporate, hybridize and adapt these bureaucratic frameworks with their own community and associative frameworks in creative and strategic ways (Boelens 2009). Yet, regardless of the kind of predominant normative framework (bureaucratic, associative or communal), water users are bonded to and depend on the socio-natural characteristics and boundaries of the water use system. This makes exclusion and inclusion as well as rule enforcement through restricting water delivery to the rule breaker an especially strong relational mechanism. Through these locally specific water rights systems, normatively established social capital -that is also projected in material constructs (technologies and natures)- can be conceptualized as one of the main drivers behind the mobilization of collective action.

2.4.2 Outward looking social capital

Collective action is not only mobilized for the construction and day-to-day maintenance, operation and administration of autonomously managed irrigation systems. Importantly, social capital is also mobilized in order to secure access to the natural resource water, legal recognition of both water allocations and the water user associations, the development of human capital through capacity building, the allocation of financial and human resources for the construction, expansion and modernization of irrigation systems, and sometimes support for agricultural production and its marketization (Beccar, Boelens and Hoogendam 2002, Hoogesteger 2013b). The capacity of local water users to secure their access to these different capitals often hinges on their capacity to link and brace with external actors. For instance through linking government agencies, donors, NGOs and local communities come in contact. These contacts have the potential to bring mutual benefits to the involved actors through the development of alliances in the form of for example co-financed projects, political support, capacity building programs and more.

Beyond the (re)production of the socio-natural scale of an irrigation system, in the Ecuadorian Highlands, water users have mobilized their social capital to become active agents in broader regional and national water governance. This results in similar outcomes as those described by Perreault (2005) for the case of Bolivia:

The formation of translocal networks linking peasant irrigators with national and international NGOs, scholars, and political activists allows irrigators to jump scales organizationally, while asserting the importance of the local. (p. 280)

Since the 1980s in the Ecuadorian Highlands, many efforts were made by NGOs to stimulate the active development of outward looking social capital for engaging local water user associations in scalar politics. These efforts actively stimulated the creation of spatially (and socially) broader water user networks. The strategies to achieve this include institutional support programs, workshops, training and the organization of information sharing and exchange activities amongst local associations. These activities ideally lead to the development of inward looking social capital amongst water users (and strategic allies) at broader scales and the consolidation of regional and national user based federations and multi-stakeholder platforms.

2.5 NGOs and water user organisations

Many European donor agencies have increasingly focused on funding NGOs that worked on making the rural poor the agents of their own development (Bebbington and Farrington 1993, Zoomers 2005). Many such NGOs and development organisations focused on fostering development by strengthening local representative grassroots institutions (Biekart 2007). Through increased participation from grassroots organisations, empowered social actors would slowly work on transforming their societies. In Ecuador, NGOs have played an important role in the (re)creation of water user organisations and their broader networks and alliances (Hoogesteger 2012a, 2013b). Just as in the case of the Bolivian irrigators movement (Perreault 2005, 2006, 2008, Assies 2003), and many peasant and agrarian movements in Latin America (Borras Jr, Edelman and Kay 2008), in Ecuador, developmental and environmental NGOs have come to play a key role in the consolidation of water users multi-scalar organisations.

In this study I use the definition of NGOs that was developed by Mario Padrón, which defines NGOs as:

private non-profit organisations that are publicly registered (i.e., have legal status), whose principal function is to implement development projects favoring the popular sectors, and which receive [external] financial support. (Padrón 1982) in (Landim 1987:30)

And complement it with that of Bebbington (1997a) who describes them as:

... private, professionally staffed, non-membership and intermediary development organisations, [...] created from the mid-1960s through to the mid-1980s that were founded on the basis of a commitment to an alternative, more democratized and inclusive development. (p. 1756)

According to Landim (1987) in Latin America, NGOs often ‘think of themselves largely in terms of autonomy and individuality, stressing their direct relationships with social groups and movements within which they act’ (p.30) and existing ‘at the service’ of the marginalized sectors of the population or the environment. Many have supported local peasant and indigenous groups through programs of institutional strengthening and the promotion of alternatives for local development. Nevertheless, many NGOs in the third world assume functions that used to be carried out by the government. The sources of financial support are often, but not exclusively, other non-governmental organisations (often European or North American) that operate in the framework of development cooperation.

According to Uvin and Miller (1996) the rise of NGOs on a large scale ‘parallels a slow but profound change in the international development aid system’ (p.344) and responds to the internationally increased attention for ‘less state’ and more ‘bottom-up; market based’ development and increasing levels of civil society participation in issues concerning their own development (Bebbington 1997c). This international trend, which was supported and greatly promoted by the World Bank and other international organisations and donors,

has gone hand in hand with a search for another form of development which Petras and Veltmeyer (2006) put as follows:

a widespread search for "another form of development," a decentralised and participatory form of local development based on more sustainable forms of "democratic" or "good" governance. The result has been a veritable flood of proposals and alternative models for bringing about "development" on the basis of social capital, i.e., through the agency of "self-help" of community-based or grassroots organisations, with the assistance and support of partner institutions and "international cooperation" for development. (p. 87)

In this context, since the 1980s, the Andes became a 'hot spot' for development organisations and NGOs. Non-governmental sources of support and international development funds streamed into Bolivia, Peru and Ecuador (Bebbington 2004). There is great variety and diversity in the orientation and goals of funders and NGOs that became active in the developmental domain. For instance, some funders and NGOs are ideologically grounded in Marxist ideas and have been engaged in anti-neoliberal political activism, others have come forth from church organisations and, again, others have actively promoted the advancement of capitalist and market-environmentalist ideas such as payment for environmental services (Boelens, Hoogesteger and Rodríguez Forthcoming, Pagiola, Arcenas and Platais 2005, Wunder, Engel and Pagiola 2008, Rodríguez-de-Francisco, Budds and Boelens forthcoming). Some NGOs operate at international level while others are very local in character.

The NGOs that are studied in this thesis²⁶, and the connotation of the word NGO as used in this thesis, concerns those NGOs that, although parting from sometimes different ideological groundings, have been committed to the political and economic empowerment of peasant and indigenous communities. Their strategy to do so has been to support the development of rural peasant livelihoods and the coproduction of organizational structures of representation. The term coproduction is used in this thesis to point to the coordinated joint efforts between a) state and/or external actors and, b) local peasant and indigenous communities, in the establishment of representative (multi-scaled) organisations around water (cf. Fox 1996, Ostrom 1996). These organisations are coproduced to, at local level, provide a service to their constituents (Ostrom 1996), and to develop political agency at multiple scales. Processes of coproduction not necessarily imply the direct involvement of the state (even though the state is somehow always there through legal frameworks).

Although NGOs were involved in the coproduction of community managed irrigation systems since at least the 1970s, since the 1990s, some of these same NGOs engaged in the coproduction of water user associations in state managed irrigation systems. This was the result of the growing international and national recognition that irrigation management could best be done by water user associations. International funders financed these interventions, while through neoliberal policies, openings were made for

²⁶ CESA, IEDECA, AVSF, FEPP, ACRA, SNV and the inter-institutional consortium CAMAREN

NGOs and other non-state actors to take over some of the former state responsibilities in the irrigation domain. These policy changes were the result of a search to reduce state expenditure in the irrigation sector (Boelens and Cremers 2004, Rap 2004, Wester 2008). This opened at national level legal doors for the development of water user associations in formerly state managed irrigation systems, while at international level several development cooperation organisations freed funds to support the construction of hydraulic infrastructure and the formation of water user associations to which agricultural production programs were often coupled. The engagement of a plurality of differently oriented NGOs in the irrigation domain was supported by the Ecuadorian state throughout the 1990s and a great part of the 2000s. With the rise of the government of Rafael Correa and his '*revolución ciudadana*' (citizens' revolution²⁷), the position of NGOs in the irrigation sector (and in Ecuador in general) has been changing as is analysed in the latter part of chapter 3.

2.6 Popular leaders: consolidating networks and alliances

Popular leaders are important for the development of social capital in- and across scales and the consolidation of user based spaces. They play a critical role in an organization and its broader networks as brokers that mediate between different scalar domains (Rappaport 2004) through the framing of ideas and the acquisition and mobilization of funds for their organisations. In this process they interpret ideas, narratives, perspectives and discourses from one space into another. They knit together and translate local concerns to broader spaces of governance and vice-versa through persuasion, arguing, contestation, subtle rhetoric posturing and interpersonal influence, that change the contents of interpretative frames. To do this, as Borrás Jr, Edelman and Kay (2008) state: leaders 'engage in a 'simplification process' to make complex realities legible to and manageable for them' (p. 186) and I would argue 'the others'. As such they become social brokers that 'translate' and transgress different languages and realities across scales (Baud and Rutten 2004). Baud and Rutten (2004) define them as:

people who articulate reflexive knowledge on the society they live in and are able to convert this analysis in ideological work and ultimately in political activism... [They] develop, borrow, adapt and rework interpretative frames that promote collective action and that define collective interests and identities, rights and claims. (p.7)

Popular leaders often have the capacity to bring people together through their charismatic discourses, their cultural/public performance and actions in which they often convincingly portray a vision and a strong conviction regarding the cause they defend and their own central role as leaders in defending and managing this cause. In this process they often combine resource flows, public ritual and passion as a part of their cultural

²⁷ Through this 'citizens' revolution', which heavily rests on Keynesian thinking, the government has tried to establish itself more centrally in Ecuadorian society by increasing its role in the provision of public services and by playing an important role in the development and regulation of the national economy.

performance (Rap 2007) which Edelman (1999) summarizes as 'style and culture'. In this sense Rap (2007) states that:

As a ritual, cultural performance tries to convince participants of the way the world is. Rather than being an empty or opaque show of form, it is meant to engage people, not only rationally, but also emotionally. (p. 601)

Cultural performance is always part theatre and part drama that is directed at the observers. Therefore it is sensitive to the contexts in which it is performed. If popular leaders lack the capacity to perform differently in various spaces, their leadership and often the fate of their organization become constrained. Therefore popular leaders must be able to adapt their cultural performances to the setting in which they are performing. Successful popular leaders are usually able to transgress scales by their capacity to perform differently while leading a mobilization or when they chair a meeting of their constituents; relax with their close friends; or are alert in a closed negotiations with high bureaucrats. Therefore as Rap (2007) argues, in different public contexts 'some aspects of publicly performed activity are 'expressively accentuated and other aspects, which might discredit the fostered impression, are suppressed' (p. 600-601).

The position and cultural performance of individuals and leaders is always enmeshed in political negotiations. Therefore the role and importance of popular intellectuals is not undisputed and 'social scientists disagree about the role of charismatic leadership in contemporary social movements' (Edelman 1999) p. 193). Although some authors have stated that there is an over-emphasis on the role popular leaders play in social movements, I will argue, based on fieldwork that their role is central in making or breaking federations, their networks and their possible achievements in broader political spheres.

2.7 From local users to a national social movement

My analysis of peasant and indigenous communities' struggles for accessing water and gaining voice in broader water governance is informed by looking at how scales are constituted. For defending their interests the studied peasant and water user groups engage in the (re)construction of space(s) at multiple scales through diverse strategies; but can the conglomerate of local actors that engage in processes of scale 'jumping' to participate in water governance in the Ecuadorian Highlands be considered a social movement? Social movements have been conceptualized as one of the important forms through which collectives give voice to-, articulate and press their 'grievances and concerns about rights, welfare, and well-being of themselves and others by engaging in various types of collective action' (Snow, Soule and Kriesi 2004: 3). Fostering or halting changes by using different strategies is therefore the core of social movements. They have often been associated with the democratization of society, the liberation of populations from oppression, the pursuit of fundamental change in power relations, and the search for different alternatives to development dilemmas (Edelman 1999, McAdam, Tarrow and Tilly 2001, Tilly 2004) which is asserted by Alvarez, Dagnino and Escobar (1998) as follows:

Social movements not only have sometimes succeeded in translating their agendas into public policies and in expanding the boundaries of institutional politics but also, significantly, have struggled to resignify the very meanings of received notions of citizenship, political representation and participation, and, as a consequence, democracy itself. (p.2)

Based on these conceptions, I use the definition of social movements that is given by Snow, Soule and Kriesi (2004) social movements are:

... collectivities acting with some degree of organization and continuity outside of institutional or organizational channels for the purpose of challenging or defending extant authority, whether it is institutionally or culturally based, in group, organization, society culture , or world order in which they are a part. (p.11)

As this thesis will show, the Ecuadorian water users have developed from local interest groups to a national water centred movement that has successfully fought for the recognition of water users autonomy, their inclusion in decision making processes, the redistribution of water allocations and the recognition amongst others of the human right to water. Yet as the case of the Chambo irrigation systems shows water user organisations are simultaneously local interest groups and the base of the broader national movement. The national water users movement of Ecuador, is constituted by linkages of interaction between place-based multi-scalar water user organisations. These have been able to link with NGOs, state agencies and multi-lateral donors to (re)create local, regional and national user based spaces and engage in the scalar politics of water governance. I recognize that this movement, is not composed of the marginalized and most disaffected groups of peasants. Rather, they are those groups that manage to engage in interest group politics and mobilize people around a shared cause (Edelman 2001:289).

In this sense the Ecuadorian water users movement is a particular kind of social movement as water users are in general terms not the most disaffected populations. Nevertheless the movement is composed mostly by peasant and indigenous smallholders that have been able to challenge extant authority through participation in spaces that are opened by state agencies; and more importantly through protest, contestation and the exercise of power. In doing so, this movement has been able to re-signify -at least in Ecuadorian water governance- the meanings of political representation and participation through struggles for recognition of the water users' rights; transparency in resource allocations; democracy in decision making processes; and equity in water allocation.

While doing this study I came to realize that I could not understand 'the' movement -its origins and demands- without understanding the 'social movements' organisations' and their material, technical, human and organizational networks at multiple scales. These are the water users organisations, its' federations and platforms. As Walder (2009) poses:

Social movement organisations [...]are the key actor in mobilization processes. They vary in ways that contribute to or impede a movement's success. [...] the

potential impact of social movement organisations and their leaders on the views and level of commitment of their members varies considerably. The more effective the mechanisms that enforce group solidarity, the greater will be the group's impact on its members. (p. 404-405)

Therefore, for understanding the Ecuadorian water users movement, I focus -based on ethnographic case studies- on the origins, development and strategies through which these groups navigate and transform the politics of water governance at different scales. In this study specific attention is given to collective action and how it is mobilized (for a great part) based on community and supra-community water users associations and their networks. This is especially relevant as much attention has been given to broader scale struggles such as the 'water wars' of Cochabamba, Bolivia (Assies 2003, Bakker 2008, Perreault 2006), the struggles and achievements of CONAIE (Jameson 2011, Becker 2011) and the Bolivian irrigators movement (Perreault 2008), yet in many of these studies the local community and supra-community organisations seem to be taken for granted. In the next section, I explore how I have conceptualized the social movement organisations at different levels.

2.7.1 Local: Water user organisations

Constituency	Water users
Main objective	Materialize water delivery to water users and ensure the sustainability of the irrigation system(s).
Functions and tasks	Administration, operation and maintenance of the irrigation system based on the implementation of the internal normative framework.

People are committed to diverse forms of spatial fixity in order to secure specific conditions in particular places (Swyngedouw 2004). In irrigation systems the natural conditions of the landscape and the availability of water, as well as the infrastructure that is needed to transport this water, materially create a fixed and confined space in nature and in society²⁸. To access water, peasant and indigenous families have a rather fixed dependence on these systems because water (and especially the amounts of water that are needed for irrigation) cannot be materialized or spatially shifted from one place to another in the absence of infrastructure. This makes shifting their access to water spatially to another place or socially to another space highly problematic and in most cases impossible. As a result water users are dependent on their irrigation systems. The interest of the water users are resource and place dependent and in first instance local, and/or

²⁸ Water use systems are conceptualized here as socio-material systems with well-defined yet dynamic boundaries both spatially as well as in terms of the water users (members), as irrigation systems are often expanded or reduced (formally or informally) both spatially as well as in terms of its members through processes of contestation.

locally anchored²⁹. This leads me to build on the idea of Cox (1998b) and define irrigation systems as local spaces of dependence. These are defined as:

those more-or-less localized social relations upon which we depend for the realization of essential interests and for which there are no substitutes elsewhere; they define place-specific conditions for our material well-being and our sense of significance. (Cox 1998b:2)

Water users engage in the social and technical (re)construction of irrigation systems to a) ensure their access to water for irrigation and domestic use, and b) to defend their access to water at broader scales. As Boelens (2008a) points out these spaces often also become spaces of identity formation and cultural practices around water. Therefore, the (re)creation of irrigation systems is not only conditioned by economic rationality. A territorialisation around water takes place that is related to the life worlds of the water users of a specific locality. In this sense Cox (1998a) argues that:

The reference to the life world is to the way in which interaction is secured by a common set of taken-for-granted meanings, transmitted via socialization mechanisms, and normatively enforced. It is through these systems of meaning that people acquire a sense of identity: an identity which is threatened by those who are outside the normative structure in question. (p. 26)

For water users to secure the conditions that can guarantee the continued existence of these spaces they engage with other social actors. This engagement takes first of all place within the confines of the irrigation system, and is aimed at ensuring the maintenance, operation, management and administration of the irrigation system³⁰. The sustainability of water use systems, -both the water user organisations as well as the hydraulic infrastructure and water flows- can only take place through the collaboration between individuals that come together and help each other to materialize water delivery.

Beyond the internal collaboration, water users also engage with external actors. Through these contacts they ensure the legal and political recognition of their organisations and water use, external investments for the modernization and expansion of their irrigation systems, institutional capacity building and other benefits (Beccar, Boelens and Hoogendam 2002, Ostrom 1990). As shown by the example of the Chambo irrigation system, to maintain their irrigation systems and defend their interest, water users engage

²⁹ Water users are inserted in several spaces of dependence simultaneously. Besides their dependence on the irrigation system, water users depend on markets to sell their produce, credit to finance their investments in agriculture and supply chains for their needed agricultural inputs (Perreault, Bebbington and Carroll 1998). Yet access to water on a specific plot of land is the most place dependent space of dependence and has much sharper boundaries with respect to inclusions and exclusion than for instance the markets in which water users can sell their products, or supply-chains for the needed agricultural inputs (which can be substituted and/or shifted more easily in place, time and social networks than access to water).

³⁰ For these tasks social spaces in which specific technical and organizational skills are developed by individuals can be structured through different organizational models such as a water user organization, a state agency or a private agency (Meinzen-Dick 2007), but in this thesis I concentrate only on understanding water user organisations.

with other centres of social power. The construction of networks that enable actors to exercise agency at broader scales -where decisions are made over water governance- is important. In these political spaces, the challenge is one of influencing the decisions of others through the development of political agency (Carroll and Bebbington 2001, Perreault 2005).

2.7.2 Regional and national organisations

Local scale water user organisations often manage water delivery and help resolve local problems. Nonetheless they often lack the capacity to address regional issues that might benefit many localities such as large scale infrastructure, investments and policies affecting wider regional or national water governance (Carroll and Bebbington 2001). To do so water users construct a different form of political space which is the space of engagement defined as 'the space in which the politics of securing the space of dependence unfolds' (Cox 1998b:2). Carroll and Bebbington (2001) argue that to be able to participate in decision making at policy level, systems of multi-communal and regional cooperation, that have the potential to gain access to broader institutional spaces, are needed³¹. Jonathan Fox (1996) furthermore stresses that the (re)creation of regional organisations is expressly significant for representing the interests of dispersed groups for three reasons:

- Community based horizontal associations are often segmented across spatial and ethnic divides which regional organisations can overcome by establishing shared interests that help overcome the constraints of locally confined solidarities.
- Regional groups have the potential to combine the strength of scaling up with closer ties with the local bases. This is important because local organisations usually lack the clout to develop regionally significant political agency, while national organisations are usually less representative of local diversity.
- These organisations often facilitate access to information about shared problems and common challenges which are the prerequisite for broader interest articulation and collective action.

2.7.2.1 Water user federations

Constituency	Water user organisations
Main objective	Representation and defence of the interests of its constituent member organisations
Functions and tasks	Lobbying, representation of interests, information sharing, service delivery to member organisations

Federations usually bring together many local organisations that share a common identity or interest (be it resource use, geographic, ethnic, political, religious). They represent and

³¹ See Boelens, Bustamante and Perreault 2010, Hoogesteger 2012a, Perreault 2005, 2008.

defend the interests of these local organisations through political advocacy, brokerage with external institutions and the state, networking and sometimes the delivery of services. They are usually based on (explicit or implicit) normative frameworks that define: a) which local organisations can become a member of the federation, b) how organisations are represented (mostly through the board of each of the constituent organisations), and c) how internal decision making processes are structured (Bebbington, Humphreys Bebbington and Bury 2010).

Federations -as spaces with broader spatial reach which can be regional or national- often have the capacity to address regional and national issues (Carroll and Bebbington 2001, Perreault 2003a, 2008). This can be attributed to several factors. Firstly federations play various roles in the public/political sphere. They pursue legal and advocacy initiatives, engage in public debates, organize meetings with politicians and bureaucrats, do research, carry out externally financed projects, file lawsuits, establish strategic alliances and collaboration with state and non-state actors, and lead protests and mobilizations. Because of their capacity to act on behalf of the interests of its constituents (local interests), federations are often recognized by governmental institutions, funding agencies and NGOs as the legitimate representatives of a specific sector of the population. This often grants federations (through their leaders) access to networks and decision making spaces within these networks and sometimes in governmental structures (formally or informally) (see chapter 5).

For the consolidation of federations the capacity to engage with both broader networks and local constituents is needed (up- and down scaling). To do this skills are needed (Uvin and Miller 1996). Yet these skills do not develop on their own; they have to be fostered. This involves developing among the members of these organisations both leadership, managerial and technical skills that enable them to sustain and run the federation. In the case of water user federations, most of the representatives that become active in the federations already have some degree of managerial and leadership skills. These skills are developed within the confines of the water user organisations in which people learn how to chair meetings, speak in public, lead negotiations, take leadership in meetings, bind their constituencies, manage and administer the water user organization and the irrigation system; as well as to network and engage with 'external agents'.

Finally, to bring forward their demands federations often need to develop the capacity to mobilize their members into popular protests. To do so, they have to be well anchored in their local organisations. At least in Ecuador, the capacity of federations to massively mobilize popular protests is seen as an indication of the legitimacy of both the federations and their claims. To anchor themselves in local organisations, federations use an array of strategies that give them 'local legitimacy' and with it support for its' public actions (even if these are not directly linked to the immediate concerns of all of its members). Mobilizations are an important strategy through which federations gain local and broader political legitimacy and power. Nonetheless greatest progress in developing political

agency from the grassroots is often achieved by the alliances local movements make with elites of either state, mixed or non-governmental³².

2.7.2.2 National: Policy advocacy multi-stakeholder platforms and networks

Constituency	Water user organisations, water user federations, non-governmental organisations, state institutions, universities, action-research institutes; development institutes.
Main objective	Deliberation, framing, exchange of ideas, development of shared proposals, information sharing, political advocacy, development of collaboration between actors
Functions and tasks	Lobbying, organization of workshops, conferences, events, coordination of shared proposals and demands, dissemination of information, capacity building, empowerment, shared project implementation.

Multi-stakeholder platforms have become broadly used to involve civil society in debates and decision making on resource management. They provide a negotiation and networking space for a diversity of interests from different stakeholders that recognize their interdependence and a shared base of interests and/or problems they face (Warner 2007). They are often conceived of as roundtables where stakeholders from divergent perspectives and social groups gather. They link actors and give them a space to voice their demands in a setting where, in principle, all voices have the same power. Multi-stakeholder platforms can promote the emancipation of the marginalized through the creation of alliances of multiple actors that seek to change existing power structures.

Governments around the world have enthusiastically engaged in the creation of multi-stakeholder platforms for, amongst other things, watershed management (Wester, Hoogesteger and Paters 2007). Most of these initiatives often fall short of their expectations especially when it concerns giving voice to the marginalized (Warner 2006, Wester, Merrey and de Lange 2003). One of the most recurrent stumbling blocks is that states do not much like sharing powers. This often becomes clear when the strategic spaces and attributions of other actors are established in state dominated platforms; most of which are only considered 'consultative' whilst participation is curtailed by the rules of the state's game. This has led some to view such spaces as mechanisms for streamlining decision making to improve policy implementation efficiency (Sze et al. 2009).

Not all multi-stakeholder platforms are state dominated. NGOs and international funding agencies have also actively promoted policy advocacy multi-stakeholder platforms. Through the exploration of common grounds, their aim is to create a critical mass and develop broadly carried proposals for progressive social change. The development and

³² See also Fox 1996, Boelens, Bustamante and Perreault 2010 and Edelman 1999.

mobilization of external looking social capital (linking and bracing) at broader scales underlies the abilities of these platforms to empower local actors and bring about change through collective action.

In Ecuador many water user organisations and federations engage in broader (regional, national and sometimes international) multi-stakeholder platforms. Through these, they develop common grounds and personal and institutional networks and alliances. The character of the linking ties that develop in these networks is very heterogeneous. Ties can be individual or institutional and vary in intensity. These may be as weak as knowing and acknowledging the other institution/individual and his/her/its position/role ('I know - and you of me- who you are, what you do, and what potential interests we might share'), or can be very close friendships or institutional interdependencies.

Bracing social capital is mobilized in the created networks through the execution of projects, capacity building initiatives, or when strategic institutional alliances are created. Perreault (2008) analysed the development of such broader networks in the Bolivian irrigators movement and highlights that:

the dense associational network that irrigators have fostered with intellectuals, activists, development practitioners, and other social movements has broadened their coalition of allies, and has given them access to technical expertise beyond the reach of many other rural peoples' movements. (p. 848)

These platforms and related ties enable water users and their organisations to develop political agency at different scales by a) developing broadly carried proposals for political change; b) accessing strategic contacts and entry points to decision making spaces at regional and national level; c) established shared demands and close strategic partnerships and alliances to attest their claims; and d) empowering the users through increased access to resources, projects³³ and capacity building.

2.8 Summary

In this chapter I have presented the main concepts through which I will analyse and study how peasant and indigenous communities, such as those of the WUA-CH, engage in scalar politics to (re)construct the spaces of water user organisations, federations and the multi-stakeholder platforms. These spaces are socio-materially and discursively constructed through networks, social relations and material practices that are bound together through social capital. Their articulation as a distinct scale has enabled water users to press their claims vis-a-vis the state and non-governmental organisations, as was shown for the case of the WUA-CH, and as will be further elaborated in the following chapters of this thesis.

The social construction of scale does not take place in a void but is actively reconstructed through social relations. How these are created and work is analysed through the concept

³³ These are used to implement projects either directly by or in the water user organisations, their federations or through other institutions such as NGOs or governmental agencies.

of social capital. I look at social capital as a capital that helps individuals or groups to move along shared interests and their materialization. I recognize two important forms of social capital namely; inward looking and outward looking social capital. The first is above all relevant for bringing about collaboration between individuals within a group as shown through the mobilization of collective action in the WUA-CH; while the latter enables groups and individuals to link, collaborate or press their claims with actors that are external to the defined group (see chapters 4, 5 and 6). As the case of the WUA-CH shows, through these links peasant and indigenous communities create alliances with other institutions such as NGOs and water user federations, and engage in scalar politics to defend their interests.

I identified three important structural elements which have partly determined how the Ecuadorian water users movement has been structured and developed; these are the state, non-governmental organisations and the leaders of the different organisations (these implicitly and sometimes explicitly come back in all the chapters of this thesis). Finally I shortly described the most important characteristics of water user associations, water user federations and policy advocacy multi-stakeholder platforms and related networks.



Chapter 3: State restructuring and the rise of the Ecuadorian water users movement

This picture of the central offices of SENAGUA in the capital city of Quito was taken during a meeting in which the water users of the province of Chimborazo tried to change decisions taken by SENAGUA on March 30th 2009. In this chapter, I analyse how, in the 1990s, under neoliberal reform packages, the institutional and legal responsibilities of the state were re-scaled in the water governance domain. I first show how the re-scaling of the state agencies opened up space for the formation of semi-autonomous water user associations in formerly state managed irrigation systems. Second, I show how NGOs came to play an important role in the coproduction of user based associations, federations and platforms. These developments led to the rise of what I have termed the Ecuadorian water users movement and the intensification of scalar politics through which users forward their demands and challenge the state.

3.1 Introduction

Recently many critical studies have been published on the neoliberalization of the management of natural resources. According to Bakker (2007) many of these focus on the negative impacts and the distributional implications of these processes. The natural resource water has attracted much attention in this debate³⁴. Most of this literature has critically analysed the privatization and marketization of the resource and the delivery of water related services by (large and small) private providers in the domestic water supply sector, especially that of large urban centres (Bakker 2010b, Loftus and McDonald 2001, Swyngedouw 2005). The irrigation sector, which consumes 70% of total freshwater withdrawals worldwide (Molden 2007), has received less attention in critical debates on neoliberalization³⁵, even though this sector has been drastically reformed in many parts of the world (Mollinga and Bolding 2004). Since at least the early 1980s, due to the economic crisis and in recognition that several state bureaucracies had problems of rent-seeking and inefficiency, new ‘neoliberal’ flavoured models for irrigation management were promoted by international policy advisory and finance institutions³⁶. Most of their policy advice rested on: a) ideas of self-governance and self-management by water users inspired amongst others by the work of Ostrom (1990) and Uphoff (1986, 1991); and b) concepts and models of development which heavily borrowed from free-market ideologies that proclaimed ‘less state and more market’ (see Budds and McGranahan 2003, Castree 2008). In Latin America, several countries introduced neo-liberal policies in the 1990s under pressure from the World Bank, the International Monetary Fund and the Inter-American Development Bank (Achterhuis, Boelens and Zwartveen 2010) including Ecuador.

Although in Ecuador the natural resource water was never made a market commodity (it remained a public good), many of the water management roles as well as the implementation of irrigation projects and programs were drastically changed and made more market oriented beginning in the early 1980s (Hendriks et al. 2003, Hoogesteger 2012a, Tiaguaro-Rea 2012). Most of these reforms were aimed at reshaping the state and society, its practices and its responsibilities, through amongst others processes of glocalization (Swyngedouw 1997) and marketization. This reduced state expenditure and, as will be shown in this chapter, these changes enabled an increased involvement of NGOs and water user based organisations in irrigation management at multiple scales.

In the next section of this chapter, I present a short discussion on the reforms that were implemented in the water management sector of many countries since the 1990s. Then I present how in Ecuador these reforms decentralized and deregulated water management functions since the early 1990s. The third section presents how, as part of these reforms, water user based organisations, federations and platforms were coproduced and

³⁴ Bakker 2010b, 2012, Bauer 1997, 1998, Boelens and Zwartveen 2005, Budds 2004, 2009, Perreault 2006, Swyngedouw 2005.

³⁵ For exceptions see among others (Boelens and Zwartveen 2005, Molle 2009, Perreault 2005, 2008, Rap 2006.

³⁶ See Cremers, Ooijevaar and Boelens 2005, Lankford and Hepworth 2010, Meinzen-Dick 2007, Perreault 2005.

stimulated at different levels by both state programs and NGOs. In the conclusions I reflect on how these processes have opened spaces through which water users have become more engaged as participants in water governance at local, regional and national levels.

3.2 Neoliberal reforms in water governance

Neoliberal policies and interventions usually pursue a wide range of changes in the water governance domain. According to Bakker (2007, 2010b), these include amongst others: the privatization of water resources through the creation of private property rights; the marketization of resources allocation and pricing; the delegation of state functions to private and non-state actors; the 're-scaling' of state responsibilities by shifting authority for decision-making downward toward local state authorities and water user organisations and upward toward, multilateral institutions, international regulatory frameworks and trade agreements³⁷.

These policies were translated to the irrigation sector with important consequences. First, the individualization and marketization of water rights in order to make them tradable goods (Bauer 1997, Boelens and Zwartveen 2005). Second, the downsizing of hydrocracies³⁸ through state restructuring and the decentralization of water management functions to 'more' local governments. This often went paired with drastic cuts in public spending (Cremers, Ooijselaar and Boelens 2005, Rap 2004, Wester 2008). Third, the stimulation and creation of water users organisations to take over former state responsibilities of irrigation management at local level (Hoogesteger 2012a, Vermillion 1994, Wilder and Romero Lankao 2006). State restructuring often went paired with processes that 'glocalized' water management. First, many water management responsibilities and powers were made more 'local' by transferring them from central state agencies to decentralized governments, the private sector and to water user associations. Second, at the same time other responsibilities and powers were made more global as international funding agencies, NGOs and private companies came to play a more prominent role in funding and defining local water management projects (Bakker 2010b).

Such administrative decentralization and de-regulation of the state has been promoted by many international lending agencies as an integral package of neoliberal policies (Cremers, Ooijselaar and Boelens 2005, Perreault 2005, Wester 2008). It has been used as a strategy to 'thin out' state bureaucracies, stimulate their efficiency and reduce state spending and regulation. At the same time, it became a tactic to fuel the emergence of economically competitive subnational spaces and increased private sector involvement. Popular participation was desired in those spaces from which the state was retreating and where market competition of the private sector was difficult to achieve such as for irrigation system management.

³⁷ See also Boelens and Zwartveen 2005, Budds 2004, Budds and McGranahan 2003, Perreault 2005, 2006.

³⁸ The term hydrocracy is used in this thesis to point to the national state bureaucracy concerned with water management (see also Wester 2008).

In water governance, the liberal idea of ‘less state’ rests on the concepts of polycentrism and subsidiarity (Lankford and Hepworth 2010). It postulates that water governance requires action by local stakeholders, private enterprises (be these local or global), levels of government and non-state actors. It aims to solve water governance challenges from institutionally, organisationally and geographically more decentralized and deregulated ‘glocal’ forms of water governance (Bakker 2010b, Castree 2008). In this sense the state authority, shifts from an all-encompassing apparatus, into one that theoretically encourages, guides and governs the private sector and civil society groups (NGOs, charities and communities) to provide services that used to be delivered by the state (Bakker 2007).

Non-governmental organisations often fit well with these ideas for several reasons (Dagnino 2007). First, with private and/or international funds, they can take over many functions that had hereto been done by the state. Second, NGOs competed with each other both locally as well as internationally for (private and public) funds for the execution of local development projects. Third, NGOs as project executers are more flexible and competitive than state bureaucracies while also being tightly held accountable for- in terms of resource spending and project implementation. Finally, many NGOs stimulate empowerment and self-help of the marginalized groups; making them responsible for their individual and sometimes collective livelihoods and institutions through the introduction of economic rationality and systems to guarantee transparency and accountability. This is an ideology which fits well with liberal ideas of individual freedom and responsibility (Andolina, Laurie and Radcliffe 2009). In this sense, for instance Alvarez, Dagnino and Escobar (1998), question whether NGOs have not become neo- or para- state institutions that help to reinforce a public sector displaced by the state. Neoliberalism does not negate the need for development, but it establishes a new and different rationality through which it can be achieved by setting out specific sets of desired developmental outputs that contribute to the larger market oriented-capitalist project.

3.3 Decentralization and de-regulation in Ecuadorian water management (1980s – 2006)

In Ecuador the process of economic integration and neo-liberal restructuring, which started in the early 1980s, reconfigured the social and political landscape (Hey and Klak 1999). In water management, policies and regulations shifted roles and responsibilities from national to local government and other intermediate level bodies (Cremers, Ooijevaar and Boelens 2005). Within this context, in the mid-1990s, direct State involvement in the irrigation sector and the domestic water use sector was greatly reduced. In its new role, the state was to create and enable the ‘right’ incentives through programs and regulatory frameworks so that organized civil society, market forces and the private sector could play a more prominent role. Budgets for the ‘traditional’ state bureaucracies and institutions were drastically cut under the assumption that investments in water management had to be made through local budgets (provincial or municipal), new mixed institutions, private investors or directly through the users. From this

perspective the operation, administration and management responsibilities were delegated, where possible to newly created or existing water user organisations, mixed public-private partnerships or private companies. To enable this, hydrocracies were thinned out and new institutional spaces created.

In Ecuador, the Ecuadorian Institute of Hydraulic Resources (*Instituto Ecuatoriano de Recursos Hidráulicos* INERHI) was replaced by the National Council of Water Resources (*Consejo Nacional de los Recursos Hídricos*, CNRH) in 1994. INERHI had managed water resources in Ecuador since 1966 through a strong centralistic hydrocracy that had controlled water allocation and administration, water resources planning, construction and irrigation system management. In contrast, CNRH only got the coordination and administration of water resources management, with a very reduced institutional capacity and budget. Twelve Water Agencies (*Agencias de Aguas*, WAs), that were responsible to CNRH, were charged regionally with the administration of water allocations and water related rules and regulations. They were to handle water use permits, mediate in water conflicts and control the application of legal norms. The responsibility for state managed irrigation systems and investments in new irrigation infrastructure was delegated to existing and newly created Regional Development Corporations (*Corporaciones Regionales de Desarrollo*, RDC) (see figure 4 and 5). Many of these responsibilities overlapped with those of MAGAP that kept involved in the irrigation sector through the implementation of programs that were aimed at the development of the agricultural sector³⁹.

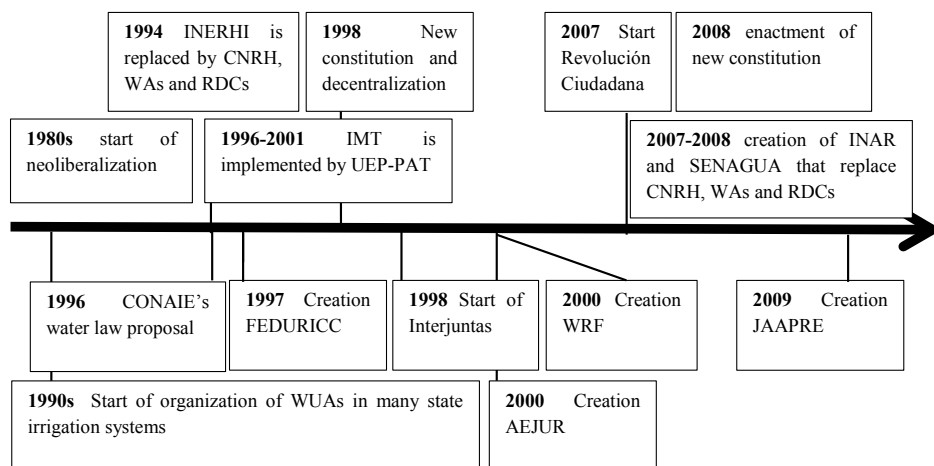


Figure 4 Timeline of institutional changes (top) and the creation of water user based organisations (bottom) (own elaboration)

³⁹ With regards to the attributions in the irrigation sector at national level, in Ecuador there has been a long dispute between MAGAP and CNRH and later SENAGUA. The much stronger MAGAP has tried to maintain the irrigation sector within its domain relegating only the administration of water resources to the corresponding water management ministries. The latter have, since the dissolution of INERHI, continuously struggled to keep and gain responsibilities in the irrigation sector.

The RDCs never considered themselves as regionally oriented agencies but more as part of the central government. They were presided over by a council that was usually composed of six members that were: one representative of MAGAP, one from the Ministry of Urban Development and Housing, one from the Ministry of the Environment, one from CNRH; a representative from the Provincial Council and a Water Users representative. According to Hendriks et al. (2003), most RDCs operated rather independently from the local governments. Their limited budgets came directly from the central government. Because of this, RDCs were rarely incorporated in national plans and policies that were carried out by the Ministries. Several RDCs limited their activities to managing the state managed irrigation systems, often together with the newly created water users associations (see also table 1). The Constitution of 1998 further decentralized the State and gave the provincial governments many irrigation management tasks that overlapped with those of the RDCs. Some provincial governments enthusiastically embraced these new responsibilities (such as the provincial governments of the provinces of Tungurahua and Azuay) and created their own technical bodies to become active in the development and modernization of irrigation projects (Hendriks et al. 2003). A task that was facilitated by an increased direct flow of financial resources from the central state. Through this re-structuring of the state and its responsibilities, more room was made for the entry of non-state actors while water users were made responsible for the management of state irrigation systems. In view of these institutional changes Cremers, Ooijevaar and Boelens (2005) identified several constraints as shown in figure 5.

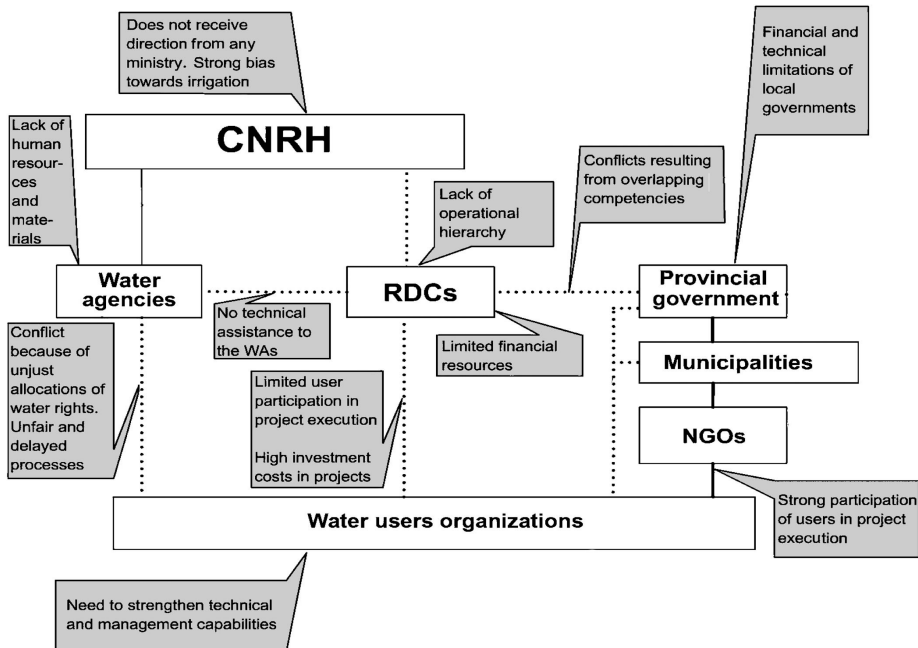


Figure 5 Institutional framework and its problems between 1994-2006 (adapted from Cremers, Ooijevaar and Boelens 2005)

Table 1 Institutional actors in Ecuadorian water management between 1990-2007 (own elaboration)

Acronym	Institutional actor	Responsibilities
State institutions		
INERHI 1966- 1994	Ecuadorian Institute of Water Resources (<i>Instituto Ecuatoriano de Recursos Hídricos</i>)	Centralized national state institution responsible for the establishment of national water policies, the allocation of water rights, mediation in water conflicts; and enforcement of legal norms concerning water use as well as the construction, operation and maintenance of irrigation systems.
CNRH 1994- 2008	National Council of Water Resources (<i>Consejo Nacional de Recursos Hídricos</i>)	Created to take over some of the responsibilities of INERHI, it was charged with the coordination of national water policies, and water allocation through its twelve Water Agencies.
WA 1994- 2008	Water Agency (<i>Agencia de Aguas</i>)	Responsible for the administration of water allocation through water use rights; mediation in water conflicts; and enforcement of legal norms concerning water use in the country. Nationally there were twelve WAs reporting directly to the CNRH.
RDC 1994- 2007	Regional Development Corporation (<i>Corporación Regional de Desarrollo</i>)	Based on provincial boundaries and responsible for regional rural development and the construction, maintenance and operation of irrigation systems in coordination with suitable entities.
GADs	Decentralized Autonomous Governments (<i>Gobiernos autónomos descentralizados</i>)	In 1998, the Provincial Governments got the responsibilities to invest in-, construct and manage irrigation systems within their provinces. The Municipal Governments were given the responsibility over domestic water supply systems. The constitution of 2008 reaffirms these attributions.
SENAG UA 2008- present	National Water Secretariat (<i>Secretaría Nacional del Agua</i>)	Created to establish a stronger position of the national state in water management. It took over the responsibilities of CNRH and the WAs and operates based on a watershed management model through more than 30 regional offices in 9 watershed units.
INAR 2007- present	National Irrigation Institute (<i>Instituto Nacional del Riego</i>)	Created during the government of the <i>revolución ciudadana</i> , as part of MAGAP, to support and expand the central state involvement in the irrigation sector mostly through investments in infrastructure of both state managed and community managed irrigation systems.
Water user based organisations		
WUA	Water Users Association	Water user based organisations responsible for the operation and maintenance of their irrigation systems. Since the early

		1990s, these organisations were coproduced in formerly state managed supra-community irrigation systems with either the support of NGOs active in the irrigation sector or through the IMT programme of Ecuador.
WUF	Water Users Federation	Formed since the late 1990s by the water users associations of irrigation systems to represent the interests of the water users at provincial and national level. Some examples are FEDURICC (since 1997), Interjuntas-Chimborazo (since 1998), AEJUR (since 2000) and JAAPRE (since 2009).
IO	Indigenous organisations and federations	Indigenous organisations at different levels got engaged in water governance in different ways. At local level they struggled for the construction of irrigation systems. At provincial and national levels they became active in water policy debates through their provincial federations. CONAIE that has defended its water agenda since the mid-1990s.
PO	Peasant organisations and federations	Peasant organisations, just as many indigenous organisations have engaged in the water governance domain at multiple scales mostly in relation to the irrigation sector. At local level, they struggled for the construction of irrigation systems. At provincial and national levels they became active in water policy debates through their up-scaled federations.
Non-state organisations		
NGO	Non-governmental organization	Diverse national and international NGOs and development agencies got involved in irrigation development tasks such as the design, construction and planning of irrigation systems and the organization of water users associations. Much of their work was financed with international development funds. CESA and IEDECA played an important role in the irrigation sector of the Ecuadorian Highlands.
PC	Private companies	Besides NGOs several national and international consultancy firms and construction companies got hired by the state agencies for the construction of irrigation systems and for the execution of IMT in Ecuador.
Mixed institutions		
PRODEP INE 1998- 2002	Development Project for Indigenous and Afro-Ecuadorian Peoples of Ecuador	World Bank funded development projects aimed at advancing 'new forms' of project implementation through special project management units composed of steering teams composed of staff of the World Bank, one of the ministries of the government, hired external experts and in some cases beneficiaries. These project teams responded directly to the World Bank.
UEP- PAT	Executive Unit of the Technical Assistance	

1996-2001	Project	
FRH 2000-present	Water Resources Forum (<i>Foro Nacional de los Recursos Hidricos</i>)	Policy advocacy multi-stakeholder platform that brings together NGOs, water users representatives and state agencies with the aim of analysing and debating the water sector in Ecuador and developing and lobbying for proposals and projects. Works as a networks organization that does research, lobby work, organizes national assemblies and coordinates initiatives.

3.4 The creation of water users associations in Ecuador

From a policy perspective irrigation management transfer (IMT) was seen as a ‘mechanism’ to make formerly state managed irrigation systems work, while reducing state expenditure and increasing cost-recovery of the water user fees. From a development perspective water users organisations were conceived as a tool to improve irrigation performance by promoting managerial practices that would lead to more transparency and accountability in irrigation management and better levels of service delivery to water users (Andolina 2012, Boelens and Hoogendam 2002, Carroll and Bebbington 2001). Some progressive NGOs -that engaged in the development of irrigation projects and the organization of water user associations- also saw these new organisations as a tool that could lead to the empowerment of the peasant and indigenous communities in the water domain.

These ideas match well with neo-liberal conceptions, by combining the development of agency of water users through social inclusion and stakeholder participation with privatization and self-management. Irrigation performance was to be increased by replacing ‘inefficient’ state bureaucracies with technically well-equipped, transparent and accountable water users associations that were to work with democratic systems of self-monitoring and regulation.

3.4.1 The coproduction of peasant and indigenous based water user associations

Since the early 1980s, many national and international NGOs⁴⁰ and development organisations had been actively engaged in creating water users associations, training water users and involving them in the decision-making processes around irrigation system design, construction and management (Boelens and Hoogendam 2002, Hoogesteger 2013b). Enabled by national policies, international funding opened many opportunities for national and international NGOs to intervene in irrigation systems in domains that had for long been controlled by state agencies (Carroll and Bebbington 2001). Through increased participation from grassroots organisations, empowered peasant and indigenous

⁴⁰ Most NGOs did not proclaim neoliberalism and even became some of its fiercest opponents, nevertheless their operation and funding was facilitated through changes in policies that promoted less state bureaucracy in some domains of society.

communities would slowly work on the development of the rural countryside. In the Ecuadorian Andes, some of the NGOs that actively engage(d) in supporting peasant and indigenous communities to become participants in the irrigation sector are/were CESA, IEDECA, the Ecuadorian Fund Populorum Progressio (*Fondo Ecuatoriano Populorum Progressio*, FEPP), SNV, the Swiss Agency for Development and Cooperation (COSUDE), the American CARE foundation and others.

Through interventions, water users were supported in the organization of multi-layered water users organisations (divided in modules and one overarching water user association) (see chapter 4). Through capacity building programs, and the provision of new technologies, users were trained to administer, maintain and operate their irrigation systems following principles of transparency, accountability and democracy that were regulated by a normative framework that was established by the state. This framework stipulated, amongst others, democratic decision making procedures in the water user associations by giving all water rights holders an equal voice in decision making and in the election of representatives. These newly formed organisations, some of which built on existing community and regional rural organisations that had fought for years for the construction of their irrigation systems took over irrigation management responsibilities (Boelens 2002, Carroll and Bebbington 2001, Hoogesteger 2013b, Korovkin 1997a). In irrigation systems that remained state managed, the RDCs co-managed these with organized water users. In these cases, the RDCs kept control and management over the main canals while water users associations became responsible for the secondary and tertiary canals and water delivery at field level.

Until 1994, INHERI had been the central state agency that controlled water and irrigation management of state irrigation systems. After its dissolution, most irrigation system management tasks were delegated to water users associations and RDCs. Investments in irrigation system construction and modernization were taken over by RDCs, provincial governments, some municipal governments and various government programs such as PRODEPINE, while international funding agencies and national as well as international NGOs also substantively engaged in irrigation development (Andolina, Laurie and Radcliffe 2009, Boelens and Hoogendam 2002, Hoogesteger 2013b). This created a multiplicity of institutions which water user associations, as empowered semi-autonomous organisations, could approach and/or ally with- to access funding and technical support for the construction and modernization of their irrigation systems.

These new peasant and indigenous user based organisations developed a considerable degree of autonomy and became active agents in determining the development and improvement of their own irrigation systems. For instance water user associations decided whether to participate or not in the IMT process; a decision that was often based on the performance of the local RDC and the contacts that the board members had with RDC personnel. Most organisations also actively and successfully lobbied and networked with governmental agencies, politicians, international funding agencies and NGOs to

access water allocations, funds and expertise to expand and modernize their irrigation systems⁴¹.

3.4.2 Irrigation management transfer in Ecuador

In Ecuador, the World Bank financed an irrigation management transfer (IMT) program to stimulate the transition from state to water users irrigation management between 1995 and 2001. This program was implemented through a new World Bank created institution that by-passed the existing hydrocracy and was called the Executive Unit of the Technical Assistance Project (*Unidad Ejecutora del Proyecto de Asistencia Técnica*, UEP- PAT). UEP-PAT was created in 1994 through Executive Decree No. 2224 as ‘the’ instrument to support and guide the implementation of World Bank financed technical assistance projects in the irrigation sector (Tiaguaro-Rea 2012). It was placed within MAGAP. Herewith, it effectively by-passed the established hydraulic bureaucracy and the interests of the newly created CNRH and the RDCs, which were operating mostly with the same staff that had worked for INERHI.

UEP-PAT was established as an independent agency within MAGAP and had a total budget of 20 million dollars that was made available by the World Bank as a loan to the Ecuadorian government. Although formally responding to MAGAP, Tiaguaro-Rea (2012) reports that UEP-PAT was above all accountable towards the World Bank, giving it a distinct independent position in the Ecuadorian government. The main objectives of the program were according to (Hendriks et al. 2003):

- Decentralize the management of the irrigation systems by transferring the tasks of administration, operation and maintenance to organized water users associations.
- Reduce state expenditure on the management of state irrigation systems.
- Make water users active participants in the management of their irrigation systems to increase the quality of water delivery services, as well as to increase the recovery rate of the costs made for the management of the irrigation systems.

Initially UEP-PAT proposed to transfer one irrigation system within every RDC, as ‘pilot projects’. The initial target of transferring 7 irrigation systems was increased in the project implementation phase. By June 2000, 24 irrigation systems had been transferred, a number which increased to 35 in 2001 (Hendriks et al. 2003, Tiaguaro-Rea 2012). Part of this success can be attributed to the fact that in existing state irrigation systems IMT was often well received by large farmers and companies (Arroyo, García and Robles 2011, Tiaguaro-Rea 2012). They perceived these new spaces as an opportunity to do away with the burdensome and inefficient bureaucracy while opening a new decision making space through which irrigation management could be organized more effectively. As a result in many irrigation systems these often locally powerful groups also became actively engaged in the directive boards of the WUAs (for the same phenomenon in Mexico, see Kloezen 2002, Rap 2004 and Wester 2008).

⁴¹ See chapter 4 and for specific cases (Arroyo, García and Robles 2011, Boelens 2002, Carroll and Bebbington 2001, Hoogesteger and Solis 2009, Korovkin 1997a).

To execute the project, UEP-PAT hired three international consultancy companies which were made responsible for the transference of irrigation systems in different areas of the country based on the administrative boundaries of the RDCs. This resulted in the following distribution (Moscoso et al. 2008):

- Utah State University (American): Northern and Central Andes Region where 8 irrigation systems were transferred (around 24,500 hectares).
- Development Alternatives (American): Southern Andes where 15 irrigation systems were transferred (around 6,700 hectares).
- Lotti&Associati (Italian): Coastal region where 12 irrigation systems were transferred (around 61,000 hectares).

The implementation of the program was locally debated for several reasons. First, many water users associations complained that too few investments were made in the modernization and maintenance of irrigation infrastructure. According to Moscoso et al. (2008), 85% of the funds allotted to UEP-PAT were used to pay for administration, goods, and wages of consultants and only 15% was invested in the rehabilitation of irrigation canals and training of water users; investments that were greatly needed in many irrigation systems after years of deficient maintenance by state agencies (Hendriks et al. 2003, Tiaguaro-Rea 2012). Second, at national level there was much criticism on the hiring of external consultants and the little coordination there was with CNRH and the RDCs. Especially the fact that the budgets were delegated to the external firms that in turn had to ‘hire’ and direct the local RDCs. Third, resentment emerged from the fact that most of the work was done and directed by foreign companies which, in view of the Ecuadorian counterparts and experts, charged towering salaries that were paid with an external loan that was to be paid back by ‘the Ecuadorian people’. Some water users associations also felt they got too little support as irrigation management tasks were ‘dumped’ on them without proper guidance and technical support.

Despite its critics and shortcomings, this program fitted well with the neoliberal policy and objectives of the World Bank. First, it effectively reduced the role of the state in the execution of the IMT program by outsourcing the tasks and responsibilities to international private companies that responded and were directly accountable to UEP-PAT. Second, it reduced the role of the state and its expenditure in irrigation management, that had until then been managed as a public service. Third, it created water user associations that, as semi-autonomous non-state entities, could provide a ‘public service’, increase irrigation fee recovery and increase irrigation performance (also see Chapter 4).

A similar program of the World Bank was its flagship the Development Project for Indigenous and Afro-Ecuadorian Peoples of Ecuador (PRODEPINE) (see Andolina, Laurie and Radcliffe 2009). PRODEPINE was set up as a national program. Its steering board was composed of World Bank personnel, central government officials and representatives of national indigenous groups. The program provided funds and technical assistance for participatory development projects that were aimed at strengthening local capacities and develop social capital (Andolina, Laurie and Radcliffe 2009). In the Andes,

many community irrigation projects benefitted from this programme that aimed to create new development models based on neo-liberal ideas of efficiency in management, self-determination and a reduced role of the state. At the same time, according to Petras and Veltmeyer (2005), this project co-opted community leaders into the program, effectively dividing the CONAIE and separating many communities from the more radical standpoints and demands.

Despite the debated nature of the IMT program, both Tiaguaro-Rea (2012) and Arroyo, García and Robles (2011) report that in the transferred systems of El Pisque and Paute-Chiticay respectively, peasant and indigenous water users also became part of the decision making body of 'their' organization (general assembly) even though the transfer process was started by landlords. Through democratic voting systems and electoral procedures for taking important decisions and for the appointment of the directive board, many peasant and indigenous communities effectively challenged the power positions of landlords and state agencies in their irrigation systems.

Notwithstanding how water user associations were created, and whether they were transferred or not through the IMT process, the 'new' mechanisms of transparency and accountability that were instituted in these organisations have created a space (the general assembly) in which groups can challenge each other through processes of political contestation, but also through mechanisms of accountability and transparency. In many instances this has led to the replacement of directive boards before their sitting terms concluded. In other cases, such as in the Guanguilquí and Porotog, Chambo, Licto and Quimiag-Rio Blanco irrigation systems, some leaders have been re-elected into the boards of the WUAs for numerous terms, either intermittently by stepping off the board one term and getting elected for the next, or by switching between different board positions, for instance, from president to treasurer and then to president again.

The backbone of most of the water user associations that are run by peasant and indigenous water users and their communities is their own internal normative framework (Boelens 2009) that maintains and mediates social structures and capacities that ensure water delivery to provide relatively secure production systems (Hoogesteger and Solis 2009, Perreault, Bebbington and Carroll 1998). Many of these work fairly independently from the politics and conflicts that are played out at the level of the directive board and the general assembly.

Whether working well, or muddled with internal strife, the extent to which water user associations can help address and solve water related problems is predominantly constrained to the spatial scale of their irrigation system. As a result, individually, these organisations have been able to attract funds to maintain and improve their irrigation infrastructure and its management, but often do not have the capacity to influence policies affecting wider regional or national issues. To do so, in the 1990s several efforts to develop up-scaled grassroots organisations emerged. The development of these up-scaled organisations often hinged on their coproduction by state, external and local societal actors at broader scales, as described below.

3.5 Up-scaling water users' participation through federations and networks

Several regional federations (not specifically around water) were created throughout the country with the support of NGOs, churches and state agencies during the 1990s (Carroll and Bebbington 2001)⁴². None of these were organized specifically around irrigation and water resources even though many of the provincial indigenous federations struggled for the construction of irrigation systems. By the end of the 1990s and early 2000s, once autonomous water user associations were consolidated in state agency managed irrigation systems, initiatives to up-scale peasant and indigenous users' struggles and influence regional and national policy making through water centred federations and networks developed.

In Chapter 5, I describe how since 1998, with support from SNV, local NGOs and other societal actors, the water user organisations of the province of Chimborazo slowly developed a well-established and recognized water users federation. Interjuntas-Chimborazo has developed a recognized Office of Legal Advice that supports water user organisations with a) their legal-administrative procedures with the governmental organisations, b) the mediation and resolution of water conflicts, c) the defense of human rights, and d) intermediation between water user organisations, NGOs and governmental agencies (Dávila and Olazaval 2006). Interjuntas-Chimborazo has the capacity to organize popular protests and mobilizations through which it has successfully exerted political pressure for transparent and equitable handling of administrative procedures and water allocations in the province (Boelens 2008b). It participates in the discussions on irrigation management in the province of Chimborazo through its broad network that includes the provincial government, the RDC (which in 2008 became part of INAR), and the Water Agency (since 2008 SENAGUA regional office) in Riobamba (Hoogesteger 2012a).

In the province of Cotopaxi, FEDURICC was formed by six water user organisations in 1997, with support from the provincial government of Cotopaxi. Initially, it was created as a strategic political tool of the provincial government that wanted to consolidate its position in provincial irrigation management in view of the 1998 Constitution. In the early 2000s, NGOs got interested in strengthening the federation and making it a tool for peasant and indigenous water users to represent their interests at provincial level. With the support of NGOs, and a new directive board, which was formed by ex-NGO staff who were also irrigators in the province, FEDURICC repositioned itself as an independent federation and slowly its constituency grew. The federation now brings together 330 water user organisations. It has focused on making the provincial irrigation agency more transparent and accountable toward the water users and in doing so has had several confrontations with both the RDC of Cotopaxi and the provincial government (Valverde 2010).

⁴² See also Becker 2004, 2007, Landim 1987, Perreault 2003a.

FEDURICC audited the finances of the provincial RDC and later INAR and then, through popular protests, was able to change several directors of the agency until their proposed candidate was put in office. With the new director in place the water users became a part of the decision-making processes that led to the implementation of irrigation projects and programs in the province of Cotopaxi. At the same time, the water users, through their federation, have become the auditors of the finances and implementation of irrigation modernization programs of state agencies. In the words of the RDC director:

FEDURICC is our controller; they are the ones who supervise our work, our responsibility is in front of them. [...] Society has to be part of the control of our institution. It has to know how expensive a project is. Therefore they have access to all of the documents of the project and become part of the team that buys the materials for the projects, if not, how can we have a transparent administration. [...] they [the water user organisations] control us and we work together.
(February 2010)

Both of these provincial federations have developed broad regional and national networks with strong personal (mainly the board members) and institutional ties with governmental agencies, NGOs and other user-based federations at different levels (from local to international). They are now recognized as 'the' representatives of the water users of these two provinces. They have regular meetings with the national ministries of water affairs and of agriculture/irrigation management and their regional offices. Through their intensive contact and strategic alliances with NGOs, they have been able to channel funds for development programs to their constituencies. Through the alliances within the national networks, these federations were able to engrain many of their water related policy demands (most of these anti-neoliberal) in the Constitution of 2008. At present they are very active in the discussions over a new national water law.

At national level, the formally transferred irrigation systems federated in the Association of Ecuadorian Irrigation Water Users (*Asociación Ecuatoriana de Juntas Usuarías de Riego*, AEJUR) since the early 2000s (Tiaguaro-Rea 2012). This federation initially strongly and successfully lobbied for the exemption of transferred irrigation systems to pay back the state investments that had been made during the construction of their irrigation systems. After this important success it has kept close relations with MAGAP and actively participates and lobbies at national level to represent the interests of its constituency.

Recently (2009), supported by the Swiss based NGO SWISSAID, the grassroots based National Alliance of Water Use Communities (JAAPRE) was established as another national federation aimed at representing the voice of the water users of small community water use systems. All these federations have been able to jump scales and develop political agency. They operate within multi-scalar networks that reach from the local to the national and international level(s) and which stretch across water users, state agencies, NGOs, and international organisations.

A policy advocacy multi-stakeholder platform, which brings many of these federations together under one umbrella is WRF. It has developed considerable political agency at national level. It is hosted by the inter-institutional consortium CAMAREN and brings together water user federation representatives, universities, representatives of state agencies and a broad base of national and international NGOs. The platform has become an important critical space for a) debating national water policies, b) doing research on water issues, and c) developing (and advocating for) ‘new’ proposals for national water policies. It is nationally recognized as an important ‘think-tank’ in the water policy sphere. This platform is funded mainly through Swiss and Dutch development agencies.

The best known national movement in Ecuador is the Confederation of Indigenous Nationalities of Ecuador (CONAIE). It is the overarching organization of provincial and regional indigenous organisations. Since the mid-1990s, CONAIE is an important political actor in the country. Through nation-wide coordinated popular protests it is able to exert political agency at national level (Becker 2011, Jameson 2011). Water is one of its key demands. CONAIE has presented a water law proposal since 1996 and was an important player in defining several water related articles of the 2008 Constitution. Since 2009, CONAIE has organized several national protests against some of the proposals of the new water law that is being developed. Its capacity to generate policy proposals, which are backed by massive popular protests and a good national media coverage has formed the backbone of its success.

The various provincial and national federations and platforms also form an interrelated network. Their views and demands coincide in some issues and are at odds in others. Therefore, sometimes, strategic alliances are created to lobby for shared demands, while at other moments the organisations stand at odds. Yet their presence has nationally attracted much public and political attention to water governance issues and has triggered the realization that organized water users have become a new important political actor at different scales. Through their broad engagement networks and decision-making processes, these organisations now form a multi-scalar water centered movement that is composed of NGOs and peasants and indigenous communities.

3.6 The revolución ciudadana in the water sector (2007-present)

Ecuador has gone through a process of transformation since, in 2007, the government of Rafael Correa started its ambitious plan of making ‘Twenty-first Century Socialism’ a reality. The new political course included far-reaching reforms in the country’s legal and institutional framework. During the election campaign the Patria Altiva I Soberana (PAIS) Movement⁴³ promised to ‘build a new fatherland (*patria*)’ through a renewed, clearer, stronger state involvement in the country’s development (Larrea 2009, Ospina Peralta 2009, Ayala Mora 2011). This was well received by many civil society organisations, including peasant and indigenous groupings, since the previous neo-liberal policies had greatly reduced the support of the state to these groups. Also within the

⁴³ PAIS is an electoral alliance that emerged in 2006 as a political alternative that broke with the traditional political parties in Ecuador. It has been led by Rafael Correa, president of Ecuador since 2007.

irrigation sector, PAIS was received with enthusiasm, not least because one of the campaign promises of Rafael Correa was that of ‘sowing the countryside with irrigation systems’.

Rafael Correa won the presidential elections with the promise to reverse the neo-liberal model (Conaghan and De La Torre 2008, de la Torre and Conaghan 2009). As part of the policy package of his ‘*revolución ciudadana*’, which rests heavily on Keynesian economic ideas, he has given the State back its central role in managing resources, including water, by re-enforcing national control over several services sectors and increasing state expenditures and investments in amongst others the public health sector, the agricultural sector, water administration, hydropower and irrigation projects. Compared to the social plans and actions of former, neoliberal governments, the Correa regime has made major advances. The new Constitution of 2008 (see also chapter 6), everyday concrete public investment in marginal areas and social priority issues, and a new feeling of dignity and valorisation among the country’s grassroots and peasant society, are clear examples.

To fulfil his promises to the irrigation sector, on October 31st 2007, INAR was created within MAGAP, through presidential decree No. 695. INAR replaced the RDCs and took over its responsibilities in the irrigation sector having the following mandate:

guide the planned development of irrigated agriculture, in potentially irrigable areas and promote the expansion of the irrigated area in the country, especially for the small and medium farmers; and take care of the proper administration of hydraulic infrastructure and the renewable natural resources... (Decreto Ejecutivo 695, 2007:1)

A couple of months later, on May 15th 2008, through Presidential Decree No. 1088, CNRH was abolished and replaced by SENAGUA, that was to take a much more central role in water management than its predecessor. SENAGUA was charged with the responsibilities of CNRH and with the coordination of national water management for which its budget was increased and the number of regional offices went from 12 original Water Agency offices to over 30 SENAGUA offices throughout the country. Its framework was an ambitious watershed-based, integrated water management approach (Ecuador 2008).

The new water policies, discursively, follow the anti-neoliberal claims of civil society groups. In practice, however, the citizen revolution does not simply ‘return’ to former state centralism. It has kept in place many of the market mechanisms and capitalist economic rationality, which were introduced under neoliberalism. Its new policies aim to get more government control in society at large; not by nationalizing the private sector nor by destroying civil society groupings, but through their regulation and in some cases co-optation.

To materially consolidate its position in the irrigation sector, the government financed several major maintenance works and new investments in state, private and community

irrigation systems in all regions of the country. In the Central Highlands region (including the provinces of Bolívar and Chimborazo), the budget for investments in irrigation for instance skyrocketed from US\$1,000,000 to US\$ 7,404,000 in Chimborazo and US\$6,896,000 in Bolívar in 2008 alone (MAGAP 2009). At present an ambitious plan that runs from 2012 to 2016 is being carried out. It aims to substantially increase the irrigated area in Ecuador and reduce flood risks through the construction and expansion of irrigation systems and several flood prevention infrastructure. This national plan has a projected investment cost of 2100 million dollars over this four year period⁴⁴.

The Correa government is aware that the era of top-down water policies has ended, and that inclusion, participation and democracy have become a permanent demand from great parts of society (including the irrigation sector) and a constitutional mandate (Republic of Ecuador 2008). Nevertheless, this stronger state involvement also implies that the government wants to take the space of representative civil society organisations (many of which helped the Government to power) and NGOs by becoming ‘the government of the people’:

we are all the State [...] The State is a fundamental instrument for coexistence, because, through that institutionalized representation, we undertake collective actions”. (Rafael Correa, 27 April 2010)⁴⁵

Within this logic, many popular leaders of civil society organisations as well as professionals that worked for years for NGOs, have been invited to become part of the government. The regulations for, and control over, NGOs and their operations have been tightened; and some critical NGOs have even been threatened by the government. As international funding has been retreating, some NGOs have increasingly been contracted by the state for the execution of projects and the delivery of services to the state.

On the other hand, many spaces for citizens participation have been created. For instance, every ministry needs to establish by law a citizens council that, in theory, audits and controls the sector. Additionally other spaces such as river basin management councils have been created in which collectives participate in decision-making. These recent institutional shifts and efforts to support users’ participation in water governance show that, on the one hand, there is a strong push toward centralizing water management responsibilities in the hands of state institutions while, on the other, there is a gesture to include water users in decision-making (based on the new 2008 Constitution). Yet, in most of these spaces, participation is embraced as long as it is in the interest of the State.

The leaders of many of the peasant and indigenous organisations have remained critical of the *revolución ciudadana*. At the meeting for the conformation of the government-steered Council of Citizen Participation and Social Control on January 20th 2011, Juan Rodríguez, president of FEDURICC, criticized its individualistic and non-representative structure:

⁴⁴ Power point presentation ‘Megaproyectos y Metas 2016’ of SENAGUA, accessed from <http://www.agua.gob.ec/biblioteca/> on April 17th 2013.

⁴⁵ Presidential speech Rafael Correa, Guayaquil, 27 April 2010, during the event ‘Destrucción de Armas’.

If this council will be dependent and will only fulfil official dispositions, it will only create ruptures with the bases of our organisations... because everything has to come from the grassroots up and not from the top to the bottom.

His colleague, the president of Interjuntas-Chimborazo added:

what kind of participation do we water users want in each one of our provinces? Participation in decision making, that our decisions become binding... [we disagree] with the Council the way it is proposed at this moment, we would become a citizens space that would contribute, but that would never be part of larger decisions...

Likewise, the indigenous movement has forced the government into a very long and extensive consultation process for the discussion and final approval of the new Water Law of Ecuador; a process that started in 2009 and is still running at the time this is being written in the beginning of 2013. One of the main issues of discussion is how water users will participate in water governance. While users want to have a real voice in decision making the state wants to keep this domain closed; as Carlos Chavez of the Quimiag irrigation system in Chimborazo, a member of Interjuntas-Chimborazo and WRF, put it in March 2011:

One of the main problems is that the [new] water law does not take the users into account, thus we are only consulted. Nothing of what we propose is binding, that is one of the most critical points we have in the water law.

3.7 Conclusions: Neoliberalism and the rise of the Ecuadorian peasant irrigators movement

Neoliberalism in Ecuadorian irrigation management has brought about changes, many of which would fit well on the agenda of anti-privatization movements (Bakker 2007) which might seem paradoxical. Nevertheless as Perreault (2005) asserts:

Though neoliberal policies the world over share an underlying logic, they are shot through with contradiction and inconsistency that reflect the struggles involved in designing, implementing, and resisting them. Thus [...] rescaling should not be viewed as a homogeneous, monolithic process reducible to the functionalist needs of capital, but rather as highly contested and compromised, with considerable institutional and geographic variability. (p.266)

The changes in the Ecuadorian irrigation sector shows some of the contradictory processes that have been brought about by neoliberalism between 1990 and 2006.

Through the international search for new models for development in which the state did no longer stand central, much of the funding and loans that streamed into Ecuador were channelled through 'new' institutions and under 'new' ideological and financial guidelines. This international trend was strengthened and facilitated by many of the structural adjustment policies that were introduced under pressure of the World Bank and

the Inter-American Development Bank. These changes, in the midst of years of political turmoil and economic recession, seriously weakened the state involvement in many sectors of society, not least by its overall financial austerity. This was also felt in the water management sector, where it greatly reduced the state's irrigation management and maintenance capacities; as well as the capacity to invest in new irrigation systems. In view of this, peasant and indigenous communities, as well as other water users, sought new allies and sources of support.

As the national state was weakened, the relative power position and financial solvency of NGOs, World Bank funded projects and some provincial governments increased. In the state managed irrigation sector, these 'new' actors worked with models for irrigation development and management in which not the state, but the water users had a central position in the operation and management of the systems (just as in all the autonomous community irrigation systems). Yet, to be able to assume these management tasks, water user associations and social capital had to be co-produced with local actors. Under World Bank inspired changes in the law, room was made for the creation of water user associations in state managed irrigation systems, and the Ecuadorian IMT program was funded to reduce the financial burden of the newly created water management institutions of the state, by eliminating the costs related to the provision of irrigation services.

The combination of a weakened state, a new legal framework and an increased financial power of NGOs and global financial institutions that believed in user based irrigation management models, opened space for- and sometimes forced- the creation of water user associations in state managed irrigation systems. These associations soon became spaces through which peasant water users started to defend their water rights both within the irrigation systems as well as beyond. Many of the water user associations that were created from the 1980s onwards, federated and co-produced broader networks with the support of NGOs and sometimes state agencies in the late 1990s and early 2000s (such as Interjuntas-Chimborazo, FEDURICC, JAAPRE, WRF). Through their federations they fought corruption and demanded transparency in the local state agencies and fiercely opposed the privatization and marketization of water resources. They have become fervent advocates of progressive proposals such as the human right to water, the non-market character of water and water delivery services and advocating for water management models that are based on either 'community' or 'the state' (Acosta 2010, García 2010).

Although the neoliberally inspired structural reforms brought about much resentment and a deepening of rural poverty by dismantling many of the social programs and protectionist measures of the Ecuadorian state, the neoliberalization process (both within Ecuador as well as in the ideologies of many donors) has contributed to some positive changes in the state managed irrigation sector. By downsizing the national bureaucracy, its central and paternalistic power position in this sector was broken. Space was opened (and claimed) for the involvement of non-state and decentralized state actors in irrigation management activities. Many of these promoted the creation of autonomous water user associations as democratic civil society organisations in which its members became

empowered to collectively determine irrigation management; effectively breaking the often paternalistic relation water users had with the water bureaucracy. This was facilitated by the involvement of more institutions with which users can make alliances in the irrigation domain (NGOs and GADs). However, the overall balance of neoliberal policies was considered very negative by the majority of the Ecuadorian population; also in the water management sector. This 'anti-neoliberal' feeling has been one of the building blocks on which Rafael Correa has (sometimes only discursively, sometimes with very concrete actions) built his election campaigns and government since 2007.

The new user based spaces have formed for peasant and indigenous users a strategy to defend their rights and become active participants of their own development through democratic decision making procedures within their organisations and the development of political agency at broader scales through their federations and networks. The rise of the PAIS movement was welcomed and supported by many of these water user based organisations as it incorporated many of its historical anti-neoliberal demands. Nonetheless, at this moment, as the government of the *revolución ciudadana* advances, organized water users have come to realize that despite the many advances that have been made since the rise of this new government, their struggles for democracy, transparency and accountability in water governance has to be maintained and defended. At the same time they have also come to realize that the alliances and networks they have made with NGOs and other non-state actors -at local, national and international levels- are under fire from this new government. They are, however, determined to nurture and maintain these networks as these will keep on being an important and strategic source of support for the advancement of their struggles in the water governance domain, as will be explored more in detail in the coming chapters of this thesis.



Chapter 4: Water User Associations in the Ecuadorian Highlands; locally materializing and defending peasants water rights*

This picture was taken on February 16th 2008, on one of the tail-end intakes of the Guanquilquí-Porotog irrigation system. On this picture the leaders of the community of Rosalía, that manages this intake, together with personnel from IEDECA, are showing me and another researcher how the irrigation system functions. This symbolizes the two main arguments of this chapter. First, that peasant and indigenous communities –with the support of NGOs- coproduce irrigation systems as new socio-material scales. Second, that for the consolidation of these new scales, social capital is transformed from existing social structures, such as those of the community of Rosalía, into new water user associations. The latter work on materializing access to water for their members by mobilizing them into collective action, and by engaging with external actors through which peasant and indigenous water users can press their claims.

* This chapter builds on my articles ‘Trans-Forming Social Capital Around Water: Water User Organizations, Water Rights, and Nongovernmental Organizations in Cangahua, the Ecuadorian Andes’ (2013) published in *Society and Natural Resources* 26(1): 60-74, and on ‘Water User Organizations and Social Capital in the Ecuadorian Highlands’ 72(4) forthcoming in *Human Organization*, December 2013. The contents of these have been expanded and revised to fit the argument of the thesis.

4.1 Introduction

In this chapter, I show how in Ecuador new autonomous supra-community water user associations have conformed as new socio-material spaces. I argue that the support of external agents was important in their formation by facilitating the development of a shared normative framework, technical and organizational water management skills, and new irrigation infrastructure. Some of these autonomous supra-community water user organisations have become important spaces in which peasant and indigenous water users have been empowered, forming the basis of the Ecuadorian water users movement.

In Ecuador, small community based irrigation systems have always been managed autonomously by communities through local normative frameworks, collective action, reciprocity and community collaboration. Since the early 1930s, the state got involved in the creation of supra-community irrigation systems through the construction and management of hydraulic infrastructure that crossed and therefore physically united several communities with water flows, infrastructure and managing organisations. State agencies were created to manage, direct and control these socio-natural systems and deliver water at plot level. This profoundly changed existing local spaces by creating new natures (hydraulic infrastructure and water flows), and new social relations between local bureaucratic water management institutions, landlords and communities.

As shown in the previous chapter, since the early 1980s, the central role of the state in local irrigation management started to change. NGOs became active in state irrigation systems, increasingly stimulating autonomous supra-community water user organisations that, based on collective action, would take over irrigation management responsibilities. This was seen by many NGOs as a strategy to empower peasant and indigenous communities by improving their livelihoods through irrigation, and by engaging them in local decision making in the irrigation domain. As a result, in the past three decades peasant and indigenous water user based associations have consolidated in the Ecuadorian Highlands.

In this chapter, I first shortly retake the concept of social capital in the context of irrigation systems. Then I analyse the historical development of social capital in the Ecuadorian Highlands at community level. Third, I present the development of social capital at levels that stretch beyond the community. Then I present the history and development of the Guanguilquí and Porotog irrigation system and the Pillaro Ramal Norte irrigation system. In these two cases, I focus on the mechanisms through which social capital at the supra-community level was trans-formed around water. Then, I present some short cases of water user associations in state irrigation systems that had been managed by the hydrocracy for years. These cases illustrate how peasant and indigenous water users were able to become active participants in local irrigation management through their water user associations. The conclusions focus on the different roles and that intervening NGOs can have in the transformation of social capital through different forms of coproduction of water user associations.

4.2 Social capital in Ecuadorian Andean communities

To resolve local (water) problems, Andean communities' have historically developed social capital through the coordination of collective action at the community level. Social capital in Ecuadorian Andean communities is expressed in their diverse efforts to collectively maintain and transform local places and ways of life (Bebbington and Perreault 1999). These efforts are generally coordinated through community-wide labour (*mingas*). *Mingas* are often compulsory for community members⁴⁶ and are usually prepared and coordinated by community leaders and discussed in community assemblies. Before the fall of the hacienda hegemony, in rural areas, *mingas* were generally practiced for the benefit of local hacienda owners and urban elites (Korovkin 1997b). Nowadays *mingas* are organized for activities and projects that benefit the community such as maintenance and construction of access roads, water supply and irrigation systems, schools and other infrastructure.⁴⁷

Even though ever-more Andean families are scattering territorially through migration to work and trade in urban centers (Bebbington 1993, Jokisch 2002), *mingas* still exist in almost all communities (Korovkin 1998). One of the results of temporal labour migration, that is predominantly done by men, is that women have come to play a crucial role in rural community life and in *mingas* (Boelens and Zwartveen 2002). Specific rules for participation and collaboration in *mingas* have changed to adapt to new local realities. For instance communities increasingly organize *mingas* and meetings in weekends or holiday periods to facilitate the participation of migrant and wage-labour dependent community members. Another common rule is that the responsibilities of absentees can be shifted within households (delegated to husband/wife, parents or children); or in time; or be met financially. Participation in these community activities defines internal social relations and sometimes the distribution of resources such as access to land, water, forests or pastures (Boelens 2008a).

Like many other community affairs, in the Ecuadorian Highlands most communities manage their water resources through *mingas* and other forms of collective action (Boelens 2008a). These are engendered through instruments of self-governance and autonomy that build on and re-create social capital around water, and often form the only way to defend individual (often family) water rights from external threats (Beccar, Boelens and Hoogendam 2002). According to Boelens (2008a) their strength lies in the deep interweaving they have with local community coexistence. The result of this interweaving being that practices of allocation and distribution of water come from a multitude of local and sometimes regional and national social and political institutions, practices, relations and networks; of which some are not- or only weakly related to water.

During my fieldwork, I visited several of these community irrigation systems in the provinces of Chimborazo, Cotopaxi and Pichincha. Haciendas that were divided and

⁴⁶Participation and work tasks are assigned according to the capacity of the individual. Elderly and pregnant women are usually exempted from work.

⁴⁷In externally funded projects, communities usually agree to provide the required (un)skilled labor through *mingas*.

given to the peasant and indigenous communities during the land reforms had owned many of these systems. Others had always been owned and managed by local 'free' communities. Regardless of their origins, all of them delivered water to community members, based on their 'internal looking' social capital. However, several of these communitarian systems have developed a certain degree of 'outward looking' social capital through which they had been able to link with external agents (development NGOs or state agencies) for the 'improvement' and/or expansion of their irrigation systems.

4.3 Supra-community social capital in the Ecuadorian Andes

For the development of communities, collective action is important, but is limited by its intrinsically local reach. To overcome this scalar constraint to agency, in Ecuador, rural peasant communities have engaged in supra-communal peasant organisations since at least the 1920s in order to fight for better working conditions, recognition and access to lands. Since the 1920s, the formation of peasant organisations was facilitated by state agencies as well as by labour unions, non-state national and international development organisations, and the Catholic and Protestant Churches (Perreault 2003). According to Perreault (2003), Ecuador's corporatist model also played an important role in this process because it granted state benefits through state-sanctioned class-based peasant or labour organisations. Many of these organisations were not territorially bound and although their presence was stronger in some regions than in others, often different peasant organisations were present simultaneously. Their political and religious views varied as well as strategies for acquiring lands and stimulating the development of rural areas. These differences often created tensions and conflicts between communities. In this way, although supra-community social capital was built in specific domains, it often also pre-empted the development of social capital in territorially based supra-community organisations.

After acquiring land during the agrarian reforms of the 1960s and 1970s (see de Janvry and Sadoulet 1989), many communities engaged in struggles for obtaining irrigation water through either the rehabilitation of old formerly hacienda owned irrigation systems or the construction of new ones (often financed by external agents and the state). Because of their size, many of these irrigation systems serve several communities. Yet at this scale neighbouring communities often have no collaboration mechanism in place and sometimes tension, mistrust and conflict exist among them, pre-empting the consolidation of social capital that can become regionally relevant. In the next case study, I show how in such contexts the role of external agents can help overcome these differences. In other cases, such as in Pillaro, which is presented later, the interventions of external agents in irrigation systems weakened existing forms of peasant supra-community collaboration by creating new organizational scales concerned exclusively with irrigation management. Finally, the cases of transferred state irrigation systems show that peasant water users can, through democratic decision making processes within their water user associations, challenge the often longstanding power positions of state and landlords in these irrigation systems.

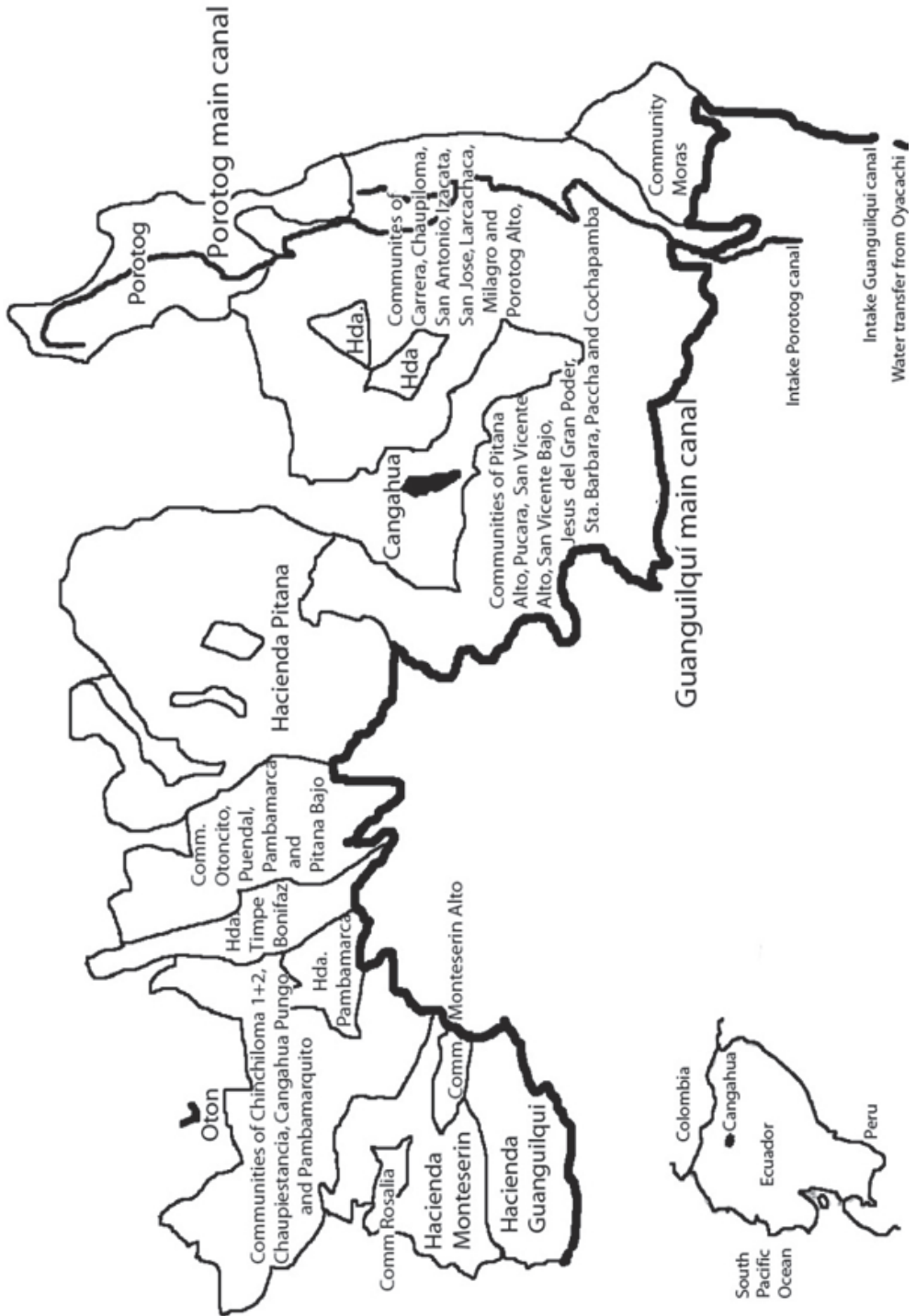


Figure 6 The Guanguilquí and Porotog irrigated areas in Canguahua (own elaboration based on unpublished material of IEDECA)

4.4 The Guanguilquí and Porotog irrigation system

The Guanguilquí-Porotog irrigation system⁴⁸ is located to the south of the canton of Cayambe, Northern Ecuador (see figure 6). The irrigation system was built by the grain-growing haciendas of Guanguilquí and Porotog to water crops in the lower parts of their lands. Construction of 43 kilometres of canals, taking water from the springs in Guarimburo to the grain-producing hacienda of Guanguilquí, began about 1850. Pursuant to the laws of the time, the hacienda owned the canal and the water. With the macroeconomic and social changes of the mid-20th century, the haciendas lost many of their privileges. One significant factor was that the State granted community members more rights as workers (minimum wage and limited working schedules) (cf. Korovkin 1997a, 1997b). At the same time, prices of the commodities grown by most of these haciendas (wheat, barley and corn) lost their market value. Further, there was the process of agrarian reform through which communities received hacienda lands.⁴⁹ The collapse of a couple of stretches of the main canal (at the head) and the general lack of maintenance of the system due to higher labour costs and lower incomes of the haciendas, made the Guanguilquí canal non-operational by the mid-1970s (Cisneros 1987).

4.4.1 From tensions to supra-community collaboration for water

In the Cayambe area due to the influence of socialist and indigenous organisations since the 1930s, calls for agrarian reform began early (Perreault, Bebbington and Carroll 1998). Many of these calls were articulated at higher scales through labour unions and indigenous federations. According to Perreault, Bebbington and Carroll (1998) the different affiliations created serious splits among the communities affiliated with the Ecuadorian Federation of Indians (FEI) and those affiliated with the National Federation of Peasant Organisations (FENOC). FEI opted for a more radical and confrontational strategy of occupying lands while FENOC worked through formal paths established by the Land Law.

Once they had acquired land, many communities decided to access water. The Water Law of 1972 nationalized water and opened opportunities for communities to formally access water for irrigation. Five communities of the upper reaches of the irrigation system decided to collectively rehabilitate the first 12 kilometres of the canal. Well informed by its participation in the national federations, one of the communities alongside the Guanguilquí canal made use of this possibility and in November 1972 applied for a water allocation. Gradually, other communities and haciendas also applied for water allocations:

Communities began their struggle for water individually. Each got its own attorney and advisor. Fifteen communities had fifteen attorneys. The lawyers

⁴⁸ According to unpublished data of MAGAP 2013 (Inventario de los sistemas de riego de la provincia Pichincha-Año 2013), the communities and water user organisations of the Guanguilquí and Porotog irrigation systems have a water allocation of 214 l/s with which 1016 water users irrigate 2171 hectares; additionally the Cangahua-Guanguilquí organization has a water allocation of 587 l/s with which 2840 water users irrigate 6000 hectares.

⁴⁹ In general haciendas kept the best land, leaving the high-altitude parts for the communities.

would tell them 'I'll get you fifteen liters for your community', but it didn't work out that way. (Elderly leader water user organization of Guaguilquí - February 2008)⁵⁰

The Ecuadorian Institute for Water Resources (INERHI) resolved the first concession for the Guaguilquí canal in 1980. This ruling granted 220 l/s to the Guaguilquí canal, of which 80% was granted to the haciendas and 20% to the communities. That same year, some communities legally appealed this decision.

Although some community leaders attempted to consolidate collaboration among the different communities that wanted to access water, divisions among communities prevailed. There were several attempts by local unions to organize a supra-community water user organization but without success. Several communities met a couple of times for this purpose in the early 1980s, but no consensus was reached; as an old-time leader tells: 'At that time communities were very politicized... They didn't want to work together because they said such collaboration would hollow their own organisations' (Elderly leader water user organization of Guaguilquí - February 2008).

To overcome this impasse, in 1983 communities that had tried to organize a water user organization but had been confronted with existing tensions among communities approached a local NGO: the Andean Centre for Popular Action (*Centro Andino de Acción Popular*, CAAP). They asked for help to rehabilitate the canal to access water. CAAP began with a pilot phase in 1983-1984 to study the prospects to rehabilitate the irrigation system with the communities.

One of the important results of this phase was the recognition that rehabilitation of the irrigation system was only feasible if all communities along the canal collaborated. To bring the communities together, a broadly accepted normative framework that would define mutual expectations (reciprocity) was needed. To understand what an 'acceptable' normative framework would entail, CAAP staff walked the canal several times and held discussions with community leaders as well as with national organisations. 'We had to discuss this community by community to see how they wanted to divide up the water. There were different opinions and different ways they wanted to distribute water' (Ex-staff of CAAP – February 2008). Important issues in these discussions were: a) the rules of inclusion and exclusion of beneficiaries (individuals and communities); b) criteria to distribute water; and c) decision-making procedures and leadership issues.

Despite the fact that CAAP conditioned further support on the establishment of a commonly agreed normative framework, it took two years of discussions and negotiations with the communities along the main canal to agree on the rules, rights and sanctions that would norm access to water. Once baseline principles were agreed upon, in August 1985, the first meeting was organized to a) explicitly agree on, establish and legitimize a shared supra-community wide normative framework (water rights); and b) based on agreed water

⁵⁰ To protect the identity of interviewees, in this chapter, I refer to the positions they have/had.

rights initiate coordination of activities to restore the canal and legally ensure water allocation to the communities.⁵¹ The water rights were based on the following principles:

- Only communities along the canal where irrigation was technically feasible could participate in the process.
- Water would be for all who worked for it (irrespective of political, ethnic or religious affiliation; land size; position along the canal), even if only a little. This implied that water distribution to communities would be based on the number of households that worked for accessing water irrespective of the size of land of each household or community.
- Only work (labour and other collective activities such as meetings, demonstrations and their related in-kind or monetary costs) generates ‘rights to water’.
- Communities would rehabilitate the whole canal through labour investments.
- Water affairs and related decision-making at the community level would be dealt with through the community council/assembly, therefore individual households could only participate through their community.
- Decision-making at the supra-community level would be done democratically within the Inter-Community Council.
- The main conflict for water was not among communities, but between them, the haciendas and the State.
- Legal procedures would continue until the ruling was favourable for the communities.

At this meeting an Inter-Community Council was established (to meet official law requirements it was registered in 2000 as the Water User Association of Cangahua). To ensure representation from all communities in decision-making an equal number of representatives from each participating community (all with the same rights) were included in the council. This council would meet once a month to evaluate the progress of the established goals of each community and to coordinate supra-community activities. CAAP supported this council by facilitating and sometimes chairing the meetings, mediating conflicts, sending out invitations and giving logistical and technical advice on the work that had to be done to rehabilitate the irrigation system. After some months of work and in order to legally apply for a single water allocation for the whole irrigation system, the Inter-Community Council created the Water User Organisations of the Guanguilquí and Porotog irrigation systems as prescribed by law. The current organizational arrangement through which water management is organized is shown in Table 2.

To restore the irrigation system *water mingas* were organized. For the difficult stretches of the main canal (especially at its head) supra-community *mingas* were organized. The rehabilitation of the rest of the main canal became the responsibility of each community. A stretch proportional to the number of people who wanted to work for water in each

⁵¹ Initially 15 of the now 29 beneficiary communities came together. Most communities that joined later are situated at the end of the canal.

community was assigned to the communities. The construction of secondary and tertiary canals was also the responsibility of communities. Since community water affairs were dealt with in the community assembly, the work was coordinated through community *water mingas* that were compulsory only for those who worked for water.

Table 2 Organizational structures of the Guanguilquí and Porotog irrigation systems (own elaboration)

Level	Functions
Water User Association of Cangahua	Groups users of the Guanguilquí and Porotog irrigation systems and handles external relations to obtain more water, works, projects, policy advocacy. Decision-making is done by the representatives of all communities in General Assemblies. Actions are coordinated by the Executive Board, legally constituted and recognized by the Government since 2000, when it replaced the Inter-Community Council.
Water User Organisations Guanguilquí and Porotog	Through a ditch tender and by organizing <i>mingas</i> and inter-community contributions, they handle the administration, operation and maintenance of the main canals, conflict resolution and re-creating the system. They group all communities (through their representatives) who belong to an irrigation system. Decision-making takes place in the General Assembly by all representatives from the communities. They are legally constituted and recognized by the Government.
Community Assembly	Manages water at the community level, with their own forms of organization adapted to the reality of each community. Decisions are made in the General Assembly. Some big communities have been divided into sectors to manage the irrigation system.

At the supra-community and community level, water users developed technical skills for the construction, operation and maintenance of the irrigation system. CAAP's intervention methodology played an important role in this. CAAP's technical advice, for the construction, operation and maintenance of the irrigation system, was given through an interactive participatory methodology (Hendriks 2002). The designs of infrastructure (canals, division structures and reservoirs), water turns and water delivery were made through participatory design processes with the water users during community assemblies. During these sessions the rationale of the designs presented by CAAP were discussed, adapted and internalized by both CAAP personnel and the water users. Once the designs were agreed upon in the community assemblies, the construction was done by the water users. The provision of construction materials and technical supervision was handled by CAAP with external resources. To manage the canals and water turns in the communities, ditch tenders were chosen from among the water users in community assemblies. The ditch tenders were then trained by CAAP to operate the system.

In a group interview (2008), reflecting on the consolidation of the supra-community organization, the ex-leaders that had been involved in the initial phases of the water user

association agreed that CAAP's outside support played an important role in the initial development of supra-community collaboration. The fact that CAAP personnel had no local political, religious or ethnic anchoring nor interest in accessing water -other than to make the irrigation system work- was important to overcome the mistrust that had pre-empted earlier attempts to establish supra-community collaboration for water. This initial trust CAAP personnel fostered from each individual community was the basis on which the discussions and negotiations for establishing a shared normative framework began. Another important factor was that through the collectively agreed upon normative framework (which established the same rules for all) differences (political, religious, ethnic) were side-lined within the network. Even though many leaders had experience in supra-community collaboration in peasant organisations, CAAP's initial involvement taught them important skills for chairing meetings and negotiations in a new context. For the construction, operation and maintenance of the irrigation system, CAAP personnel were also important both as technical experts and as capacity builders that trained the communities in how to manage the irrigation system.

4.4.2 Supra-community struggles for irrigation system construction, and improvement

While rehabilitating the canal, the communities supported by CAAP had two other parallel tasks: (1) putting constant pressure on INERHI to issue its ruling in favour of the communities and; (2) searching for new water sources. To prove to INERHI that their need for water was legitimate, an inter-community census was organized between 1986 and 1987. CAAP coordinated the work and systematized the data:

For half a hectare, for a single cow, they couldn't justify giving us water. How could INERHI decide, with no technical guidelines for such small amounts of water? So we conducted a census of everything we all had together. That showed the inspectors that small farmers needed water....

The process stalled... How could we turn a page, and get them to decide in our favour? Our friends from CAAP were advising us, and they suggested, 'let's have a sit-in at INERHI offices, right in Quito. (Ex-leader of the Cangahua water user association – February 2008)

This sit-in accelerated decisions and INERHI, based on the census, resolved the case by granting 92% of the water to the communities and the remaining 8% to the haciendas. With the formal water allocation, communities, through CAAP, were able to link with both international donors and governmental agencies that financed the construction, expansion and rehabilitation of the irrigation system. CAAP and later IEDECA⁵² managed the funds and provided technical expertise. In 1990-1991, the National Rural

⁵²In 1990, this NGO split from CAAP that had worked with the communities of Cangahua in their struggle for water. Several CAAP personnel organized independently as IEDECA and split from CAAP to continue with the irrigation projects, which CAAP did not consider as its scope of work anymore. Now IEDECA works on multiple rural development projects throughout the Ecuadorian Highlands based on joint efforts among communities and the institution.

Development Program (PRONADER) provided funds to line and improve the main canal. The Dutch Government funded the construction of distribution structures, reservoirs, and secondary and tertiary canals (1993-1997).

Having seen the fruits of supra-community collaboration, new communities gradually showed interest in becoming water users, especially at the end of the canal where irrigation was now technically feasible. This entailed conflicts and lengthy discussions among rights-holders, IEDECA and the new applicants. It was agreed that 'new' communities and households would only be able to access water if and when new sources of water were found and materialized. Yet to earn their right to water the 'newcomers' had to participate in supra-community efforts to a) maintain the irrigation system, b) access new water sources through a legal permit, and c) access external investments to construct the needed infrastructure to utilize new water sources. The 'new' water claims and problems of water shortages in the dry season led communities to look for new sources to increase the irrigation system's total flow.

Communities gathered from all four parishes because there wasn't enough water. On paper, the Porotog canal has 126 l/s, Guanguilquí has 222 l/s ... but in practice it's less – during the dry season Guanguilquí had 80 l/s to 60 l/s and Porotog some 80 l/s. So, to complement that, we had to find more water; we went to ask for water to the east, in Oyacachi. (Leader of the Porotog water user organization - February 2008)

In the early 1990s, the communities applied for the right to use water from other sources in Oyacachi. In 1993, INERHI granted 500 l/s from springs in Oyacachi for the communities of Cangahua. With this concession, and World Bank funding through the Ministry of Social Welfare, building of a tunnel to bring water from Oyacachi to the irrigation systems of Guanguilquí and Porotog began (under supervision of the state). A company was hired to construct the tunnel and began work, but in 1997 funding ran out, and the project stopped. Communities responded by turning to subversive actions:

We had to organize and mobilize. We blocked highways and visited the Ministry on several occasions. And finally what did we get? We got visits in Cangahua from Lucio Gutiérrez, Fabián Alarcón, Palacios,⁵³ the presidents visited us... (...) they started working on the tunnel and then construction stopped again, because funding ran out again. The companies began removing their machinery and we shut down a whole zone for about six months in the Larcachaca area. We didn't let vehicles in or out, so the Government would have to think about funding that project again... (Ex-leader of the Cangahua water user association – February 2008)

To demand completion of the project, alongside the above-mentioned actions, communities organized 15 mobilizations (with 1500-2000 persons each) to Quito. Finally

⁵³ These were the different presidents of Ecuador during that time.

during the presidency of Gustavo Noboa funds were released to complete the tunnel, which was finished in 2001.⁵⁴

In 1995, CNRH -that replaced INERHI in 1994- gave an additional 1093 l/s to the water users of Cangahua from various springs in Oyacachi. This ruling was appealed by the Water and Sewerage Company of Quito (EMAAP-Q) which had a project to obtain water from the same sources. This case was settled in 1997 granting 250 l/s to Cangahua. However, although they have the ruling, they cannot use the water.⁵⁵ The board continued looking for new water sources. In 2005, CNRH granted another additional 513 l/s to Cangahua. However, this ruling was appealed by the community of Oyacachi and remains unresolved. At a more local level, several communities have accessed small financial credits to improve their irrigation system through the installation of sprinkler irrigation. Significantly, most of these programs were accessed through external links that their water user organisations have been able to establish.

At the national level the water user organization is an active member of CONAIE. At several occasions hundreds of people have been mobilized to national rallies to fight for the inclusion of their demands in national and regional water policies. In this manner they were present at the discussions that led to the new constitution of Ecuador (2008) and have been strongly involved in the mobilizations around the new water law. Some of the demands that have been successfully incorporated into the national legal framework include: the recognition of customary water rights and the non-private character of water rights and the provision of water services. At present they are struggling for a more democratic water management structure at the national level through the creation of participatory mechanisms in decision-making.

4.4.3 Internal conflicts and challenges

Although the struggles and achievements of the organized water users of these irrigation systems are impressive, these have not come about without internal conflicts and disputes. At the local level, despite the clear normative framework that has been established, water theft along canals has been an on-going problem that causes several internal conflicts among individual water users and communities. In these problems the classical conflicts between head enders and tail enders of canals is present. Many normative measures have been taken but the problem has not been solved completely. Many tail-enders point to this problem as one of the main reasons for wanting their secondary and tertiary canals pressurized in pipelines (which are preferably dug underground).

Leadership positions of the water users organisations of Guanguilquí and Porotog have also been misused. For instance, between 2004 and 2006 the leadership of the Guanguilquí water users organization gradually raised the water fees without clarity over the need for it. At the same time the contingency savings that had been made by previous

⁵⁴ The final cost was US\$ 19 million rather than the originally budgeted US\$ 3 million.

⁵⁵ To use this water, communities still have to build 11 kilometers of canal to conduct the water from its sources to the tunnel.

directive boards was spent. The board could not account for those expenses, and rumors went around that money was being used for personal expenses, loaned to relatives and political allies. Despite calls for financial transparency the board could not present and defend the financial situation of the water users organization. After a general assembly in which the board had been strongly questioned by the members, it stopped calling out general meetings. This enabled them to maintain their position and avoid a change in the directive board. After much pressure from the general assembly members, in 2006 the leaders were overthrown through democratic voting.

Although many internal conflicts are solved within the communities and water users organisations, there are still cases in which one or more of the parties involved in the conflict seek the advice and mediating role of IEDECA. This NGO is still given the role of mediator by many communities, although its legitimacy very much depends on the closeness it has with community members and leaders of the water users organisations. During several years one of the key figures of the board of water users organization of Cangahua (who has been re-elected many a time into different positions) has worked as capacity builder and technician for IEDECA, establishing a very close relationship between the two organisations.

Finally large infrastructural damages to the main canal due to, for instance, landslides is a major threat for the irrigation system. Because of the general reluctance of water users to pay a water fee and the ever present fear of corruption in the directive board (especially if large sums of money are involved), there is no fund to cover the expenses in case of a major canal break down or investments in the modernization of existing infrastructure that cannot be solved by unskilled labour (*mingas*) alone. For these expenses the water users have until now relied on their capacity to link and brace with external institutions (government and non-governmental) to find funding. This strategy has proven to work until now, even though it has also meant that major repairs or investments take time, sometimes leaving the water users without access to water for extended periods of time.

4.5 The Pillaro Ramal Norte irrigation system⁵⁶

The Pillaro Ramal Norte irrigation system, in the Pillaro borough of the province of Tungurahua, has at present a water allocation of 1270 l/s with which 3270 hectares are irrigated with a water distribution ratio of 0.39 l/s/ha, benefitting some 3100 families (see figure 7). The history of the irrigation system begins at the end of the 1960s. At that time, INERHI built the Pisayambo dam and the Pucará hydro-electric power station. INERHI's plans envisaged the construction of the Pillaro irrigation system in order to productively use the water that had passed through the hydro-electric power station for irrigation purposes. A tunnel of three kilometres and a distributor (Santa Rita), which divides the flow into two main sections, the Pillaro Ramal Norte and the Ramal Sur system (see

⁵⁶ The Pillaro irrigation system is composed of the Pillaro Ramal Norte and Pillaro Ramal Sur main canals. At the time of study the technical and organizational interventions in the Pillaro Ramal Sur had only started, therefore I focused my case study the Pillaro Ramal Norte canal as is explained in this chapter.

figure 7) were built, but because of a lack of funds further construction of the irrigation system was suspended in 1971.

In the Pillaro borough, some communities had irrigation water from small community managed irrigation systems (Dries van den and Jaramillo 2000). Nevertheless, for most, the larger irrigation system that had been projected by the state was the only way to access irrigation water and some communities that already had irrigation, hoped to get a larger water allocation with the projected ‘new’ irrigation system. In order to bundle the efforts of the different communities and to struggle at supra-community level for the irrigation system and more broadly regional development, the communities of the Parish of San Andres in the Pillaro borough of the province of Tungurahua, formed the Federation of Peasant Organisations of the Píllaro Parish (*Federación de las Organizaciones Campesinas de la Parroquia San Andres del Cantón Pillaro*, FOCCAP) in 1995. As a community leader explained in February 2008:

In every community we had organized a committee of development ... later we brought these committees of different communities together in the FOCCAP to bundle our efforts to find external sources of support to develop the region. We started first with some funds of PRODEPINE. With the organization we have progressed...

After the foundation of FOCCAP, this federation coordinated the efforts of the communities of the parish of San Andrés to complete the 17.6 kilometres of the main canal of the Píllaro Ramal Norte through collective *mingas*. As a community leader of San Andres explained in February 2008:

We have fought; we have tried to fund our projects. ... We tried to get the governments to help us, but we organized ourselves.. every Saturday and Sunday we were working on the main canal. We had a president of all the communities and he used to call us out to work through mingas.

According to FOCCAP, the communities dug the canal through the investment of 90,000 person/labour days and other material and financial contributions between 1995 and 1997 (Dries and Jaramillo 2000). In 1997, the communities at the head-end of the main canal began using water. While working on the construction of the canal, FOCCAP sought technical and organizational external support in order to complete the irrigation system. Initially much pressure was put on the RDC – CORSICEN that was formally responsible for the construction and management of this state irrigation system since 1994 when INERHI was dissolved.

CORSICEN had no funds for completing the construction of the canal, and in the policy context of the late 1990s it was very unlikely that this institution would get funding for such a project. Therefore, as part of the FOCCAAP’s efforts to find funding, between 1997 and 1998 they approached several NGOs including IEDECA and CESA. IEDECA, who was first approached, declined the call as it had no interest in working in a state irrigation system, in which the water rights and organizational structures for irrigation management

were imposed by state guidelines (and in this case controlled by CORSICEN) (see also Boelens 2008a).

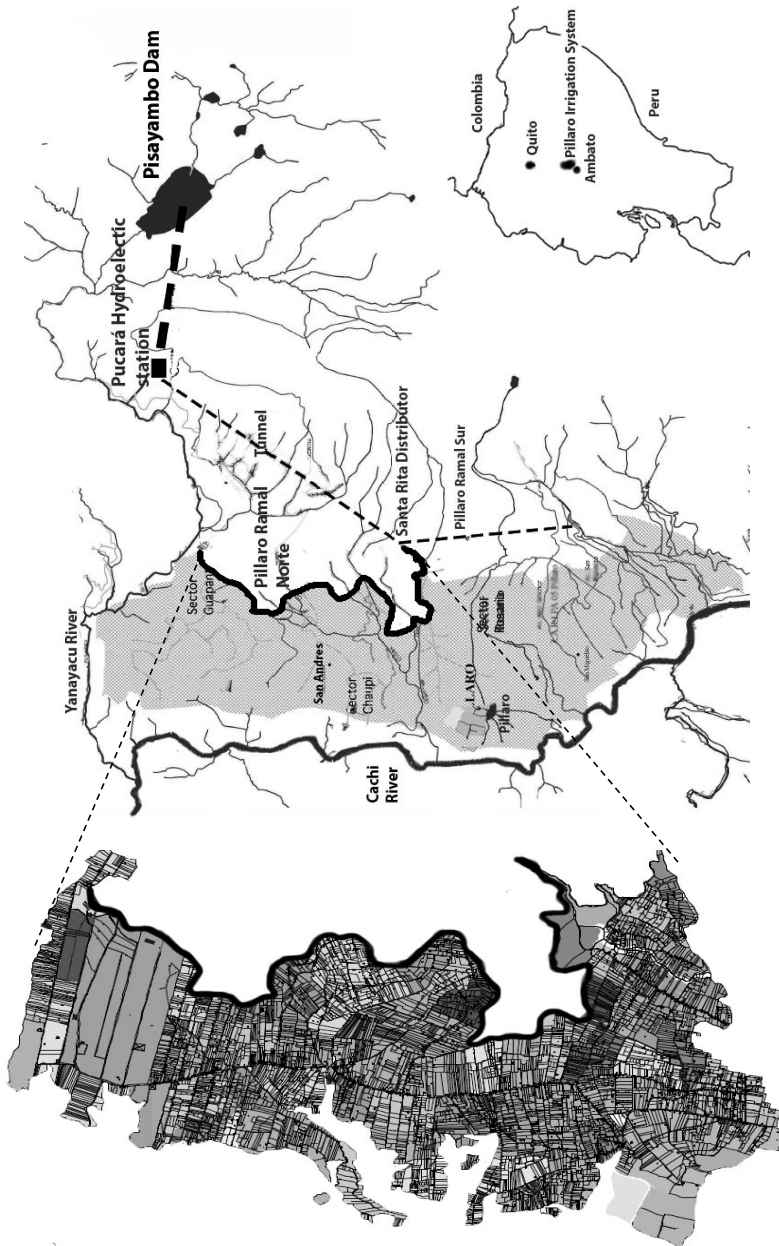


Figure 7 The Pillaro Irrigation System in the Tungurahua province (own elaboration based on Récalc 2011)⁵⁷

⁵⁷The figures presented in Récalc (2011) were made by Thierry Ruf based on unpublished material and GIS databases of CESA dated November 2003 and of databases of INERHI.

At the end of 1998, with foreign development funds, CESA began a participative diagnosis and planning process that resulted in a Local Development Plan and funding proposals to start an intervention process in the area. In May 2000, CESA -that had been able to access development funds from German (*Welthungerhilfe and Deutsche Gesellschaft für Zusammenarbeit*) and Spanish (Intermon-Oxfam) donor agencies - began to work with the communities on a) the construction and installation of the secondary and tertiary canals of the irrigation system in the San Andrés parish⁵⁸, and b) the organization of water users organisations. Between 2001 and 2003, after a prolonged lobbying process by part of FOCCAP, the Corporation for Regional Development of the Central Sierra (*Corporación de Desarrollo Regional de la Sierra Centro*, CORSICEN) reconstructed and lined the main canal of the irrigation system.

4.5.1 Transforming inward looking social capital: new organizational spaces and normative frameworks

In the area social capital existed at community level and was coordinated at supra-community level through FOCCAP. Nevertheless, after the external intervention process, CESA has taken over the central role of coproducing water user organisations at different levels of the irrigation system, based on state guidelines. These stipulate the formation of Water Assemblies (*Juntas Sectoriales*) responsible for the operation, management and administration of the secondary and tertiary canals through modular committees. This has led to the organisation of 25 Water Assemblies (11 in San Andrés and 14 in Urbina). The water users were organized in organisations that were based on the hydraulic blocks of the irrigation system. These were created alongside the community organisations and the already existing FOCCAP; even through initially FOCCAP wanted to become the organization responsible for the management and administration of the irrigation system. Through the construction of the Pillaro Ramal Norte system, the existing community managed irrigation systems were incorporated into the larger infrastructural system and the new organizational structures. This affected the water rights and community water management structures that were in place beforehand, creating conflicts also with some of the water users that saw many of their rights and autonomy taken away by the larger structures and organisations.

To coordinate the operation, maintenance and administration of the main canal of the new system, and the coordination of the Water Assemblies, the Central Water User Organization for the Pillaro Norte canal was consolidated. This organization, in turn, is part of the broader Water Users Association Pillaro. This association congregates the water user organisations of the Northern main canal as well as that of the Southern main canal of the Pillaro irrigation system (a pre-assembly had been in existence since 2005). After its consolidation, the Water Users Association Pillaro has become the organization that represents the interests the water users of Pillaro towards external organisations (see also table 3).

⁵⁸ The second phase of the project, (beginning in 2005) included the communities of Urbina parish in the project.

Table 3 Organizational structures of the Pillaro irrigation system (own elaboration)

Level	Functions
Water User Association Pillaro	Coordinates the administration, operation and maintenance of the main canal and tunnel up to the Santa Rita distributor. As legal representative organization of the water users of Pillaro it represents water users interests at local, regional and national levels.
Central Water User Organization Pillaro Norte Canal	Administration, operation and maintenance of the main canal and water distribution to the Water Assemblies. Representation of the users of the North Canal of the Pillaro Irrigation system in the Water Users Association Pillaro and with external agents. With external support it has been able to construct a field office for the administration and collection of the irrigation fees and it is also the office where the ditch tenders are based.
Water Assemblies	Administration, operation and maintenance of the secondary reservoirs and canals for each sector. Distribution of water to the Modular Committees by means of a ditch tender.
Modular Committee	Administration, operation and maintenance of the tertiary canals and distribution to plots amongst users (with or without a ditch tender).

State guidelines have determined the organizational structures and water rights of the water users of the Pillaro irrigation system. These new spaces and new water rights were imposed on top of already existing organizational forms, which was not uncontested. As a community leader of the Guapante sector explains (interview February 2008):

I think it would be better if the community organization and the water organisations would be together. Now each one calls separately for assemblies. One for issues concerning water; the other for other issues. I think these should work together. We used to do all in the community organization... and that kept us united. Now divisions have been created because of two different assemblies... now there are people that do not want to know anything about the community.

The water rights that were imposed established the following important principles:

a) Access and operational rights which include amongst others:

- All landholders within the potentially irrigable area of the system (which is defined by state technicians) are eligible to acquire a water entitlement through two mechanisms:
- Acquired rights: All users who participated in the *mingas*, meetings and mobilizations for the construction of the main canal, and in the *mingas* for the construction of the secondary canals are entitled to become users of the irrigation water.
- Bought rights: Those who did not participate in and contribute to the construction of the canals may 'buy' their water rights and become members of the irrigation

system. To do this, the new users must: a) have their land within the irrigation system's zone of influence (as established by the plans), b) apply to the users' register of the Junta Central de Riego (JCR – Central Irrigation Assembly), and c) pay the equivalent of ten days' wages and a fixed amount per plot of land (a plot of land is around 2000 m²).

- Water allocations are proportional to land tenure at a distribution ratio of 0.39 l/s/ha.
- All water users have to pay their irrigation fee to the JCR to maintain their right to water.
- Infrastructure and water flows of the primary and secondary canals are operated in principle by a ditch tender.
- At tertiary level and at plot level either water users or ditch tenders can operate and infrastructures and water flows.

Control rights include amongst others:

- The structures of the organisations and the formal contents of the normative framework for water management are predefined by state established legal guidelines.
- Water users organisations are responsible for the administration, operation and management of the irrigation system at different levels in the irrigation system.
- General assemblies are the highest decision making body of the water users organisations.
- All water users with a formal water right have a voice and a vote in the general assemblies.
- The day-to-day decisions and coordination of the water users organization and its management is delegated to a democratically chosen directive board.
- All water users have the right to become eligible for the different positions of the directive board of the organization.
- All the water users democratically choose the members of the directive board for a period of two years during general assemblies.
- The general assembly has the right to sack the directive board members before their two-year period is fulfilled.
- Rights, responsibilities, rules and sanctions of water users can be established locally by the general assembly and can include fines and the temporal or permanent loss of the right to access water.

Through their organisations and based on this normative framework at present the water users administer, operate and maintain their irrigation system and ensure water delivery at plot level based on the state rules and regulations that were imposed on them. These are however still contested. One user expressed the discontent of a large number of the users that struggled for years to get the irrigation system built, when he called these imposed rules and regulations 'egalitarian yet not equitable'. He makes reference to the fact that these regulations did not take into account the people's history of struggles through *mingas* and community participation in the allocation of water rights. Another issue

which has been a constant basis of discontent amongst peasants is that, because of the allocation rules, the largest hacienda owners have the largest water allocations, while peasants, and especially those with least land, also have the smallest water allocations (as in all state managed irrigation systems in Ecuador).

Besides these struggles over the water allocation rules, other internal differences and conflicts still exist and will probably remain. For instance, the collective of water users of the parish of Urbina, has a very well working organization in which high levels of trust persist. These are based on the already existing forms of social capital in the community. They have formed a Cooperative of Water Users of Urbina through which the water fees are collected from the different families and then are paid to the Water Users Association collectively. This Cooperative has built its own office which is used to discuss water issues in the Parish as well as other issues of collective interest. In this venue local conflicts over water are discussed and solved based on their local normative framework.

On the other hand, there are communities that, while having strong internal bonding and at the level of the Water Assemblies and their communities, have not contributed to the broader Water User Associations of the Ramal Norte nor of the whole system; as a staff member of CESA explains:

There are people that do not respect the normative framework... they refuse to pay the water tariff... we have had a lot of problems especially with the community of Guapante Grande where people do not want to pay... saying that if they pay it will only be for their sector and community to for instance paint the church. (February 2008)

Cases of individuals who fail to recognize the normative frameworks of the water user organisations also exist in the irrigation system, causing several problems and delays with the construction of the infrastructure:

There are a lot of problems regarding the right to let water pass through private plots by means of the construction of the needed canals. It seems that sometimes, once people have their access to water secured, they forget about the collective interest of the water user organization. (Technician CESA- February 2008)

In general terms, the organizational structures have kept on working according to the established water rights and internal statutes even though there are different visions on how these are to be implemented. For CESA technicians, who have trained many of the younger leaders, the formal rules have to be implemented in order to make the irrigation system and its organization work well. Nevertheless this sometimes is at odds with the norms of older community leaders such as those of San Andres, that have their roots in the community traditions of reciprocity:

In the last years we have had some conflicts... the Water Assemblies have separated themselves from the community structures... and the new directives have applied a lot of sanctions and that creates conflicts. ... Of course there are

people that forget to pay but we have to convince them that we all have to pay.
(February 2008)

Despite the many conflicts that arise within the organisations, in general terms the organisations have proven to have the capacity for organising collective action for water delivery and the functioning and renovation of the organisational structures even though internal conflicts and struggles remain. As one of the water users says: ‘in general and despite the conflicts that persist and sometimes arise, people have kept together in the *mingas* and in the assemblies.’ This is a feeling that CESA shares, as one of its staff members asserts that:

We feel we have created a good social basis of trained water users who are working for the service of the larger good of the water users [through their organisations]. (February 2008)

4.5.2 Developing outward looking social capital

Outward looking social capital has been present in the area for a long time. In first instance it enabled the communities to unite in the FOCCAP. Once united in the FOCCAP, it enabled them to link and brace with CESA and other external actors such as CORSICEN, the municipality of Pillaro and with different national state instances such as PRODEPINE and MAGAP. Still, CESA has given a lot of attention to the further development of outward looking social capital. In doing so it has developed networking and negotiation skills (linking and bracing social capital) of the water users and especially the leaders of the organisations. The development of skills has been done through formal trainings, but also by supporting and advising the leaders of the organization throughout the processes and negotiations they have with external agents. This sometimes takes the form of formal advice, but often implies doing things together with the users; a strategy that brought forward its fruits for both CESA and the organized water users.

The water users have been able to obtain the support of the town council of Pillaro for the construction of 23 night reservoirs. Moreover, the town council has supported some of the production and commercialisation initiatives that have been carried out in the irrigation system. In 2007, the water users were able to obtain resources from the MAGAP for the further improvement of the irrigation system (reservoirs and sprinkler irrigation) of Pillaro Ramal Norte and for the construction and expansion of the Pillaro Ramal Sur. Initially these resources would be channelled to CORSICEN, that was formally responsible for the irrigation system. Yet, based on the bad experience the water users had with CORSICEN, they managed to negotiate that the funds (4 million dollars) were managed by the Provincial Council of Tungurahua (which has a good reputation with regards to the management and execution of projects in the province).

The Water User Association Pillaro was able to amend the terms of the system’s formal water right in 2008. With support of CESA, the water users negotiated a contract modification with CORSICEN, SENAGUA, the National Council on Electricity (CONELEC) and the company that operates the Pucará hydropower station (Hydroagoyán S.A). They managed to change the legal status and terms of use of the

water allocation of the Pucará power station from a power station allocation into a multi-purpose water allocation, which made irrigation the priority use. The power station, through which water is supplied to the Pillaro Irrigation System, has changed its functioning regime to prioritize the supply of water for irrigation purposes.⁵⁹

4.6 From state- to users irrigation management in the Ecuadorian Highlands

In some of the formerly state-managed irrigation systems that were turned over to the users through IMT (see chapter 3.4.2), such as the Chiticay-Paute and El Pisque irrigation systems, peasant water users have become, just as in Pillaro, important actors in decision making and management of their irrigation systems within the boundaries established by the rules and regulations of the state. In both these cases, organized peasant users have fought for their rights with some important successes, and some draw backs, over long years of struggle, within the water user associations. Through principles of democracy and representation, that are engrained in water user associations' water rights systems and organizational structures, peasants have broken some of the longstanding power positions and water allocation privileges that haciendas and other landlords had created for themselves in these irrigation systems (often through alliances with the hydrocracy). Besides, together with landlords and agro-export companies, these smallholder users have organized for the traditional irrigation tasks and have been able to link with different state and non-state agencies to access funds for the modernization, maintenance and expansion of their irrigation systems (see Box 1 and Box 2). This does not mean that all turned over irrigation systems have worked well; nor that in all systems peasant water users have been able to defend their rights within the confines of their water user associations. Gaybor (2008), for instance, reports that in the coast of Ecuador large banana and sugar cane plantations illegally appropriate large volumes of irrigation water at the cost of smallholders. Also in the highlands, landlords sometimes become part of the directive boards and try to arrange issues to protect their interests and water allocation.

Besides the irrigation systems that went through IMT, many other state managed systems formally remained under the control of the state agencies, even though water user associations consolidated and took over most of the administration, operation and management. Three of these irrigation systems are in the province of Chimborazo where I did most of my research. In this province the irrigation system of Licto-Guarguallá consolidated its water user association with the support of CESA and SNV in the late 1990s (see Boelens and Doornbos 2001 and Boelens 2002). The Chambo-Guano Irrigation System was expanded and modernized throughout the 1990s. As part of this intervention, the Italian C. Lotti&Associati S.p.A. organized its water users in 82 water assemblies and one central water user association that now bundles over 10,000 water users. The Rio-Blanco-Quimiag irrigation system, with more than 2,300 water users, was

⁵⁹ Although legally and on paper these changes have taken place, their implementation is still not always followed because for power generation purposes the new operation guidelines are not ideal. Therefore it has kept on being an issue of struggle.

developed by INERHI, the Ministry of Agriculture, the Ministry of Social Welfare, USAID and the NGO CARE in the late 1980's and early 1990s. Kellner (2011) shows that, even though internally politicized and with many conflicts, in these two water user associations the peasant users play an important role in decision making and management. The water user associations of these systems have also been able to establish relevant links with external agents in order to defend their interests and ensure the sustainability of the irrigation systems. Beyond the irrigation system level, as explained in the next chapter, these three water user associations have been founding and core members of Interjuntas-Chimborazo. Through this federation, they have developed political agency to defend the rights of the peasant and indigenous water users at provincial and national levels.

Box 1 The Pisque irrigation system (based on Tiaguaro-Rea, 2012)

The El Pisque irrigation system has its origins in the 1940's when the state, through the *Caja Nacional del Riego*, started with the construction of the main canal. In the decades that followed the irrigation system was successively managed and expanded by the different state agencies responsible for irrigation management in the province of Pichincha. Throughout the history of the canal there existed a more or less permanent conflict between a) the *hacienda* owners (later flower export industry) that had close relationships with the state agency personnel and b) the local peasant communities that often saw their waters diverted to the lands of the *haciendas*. In 1998, after the state organization (*Corporación Regional de Desarrollo Sierra Norte - CORSINOR*) had failed to repair the main canal after parts of it collapsed, the water users (both *hacienda* owners and peasants) organized on an ad-hoc basis and took over the irrigation management responsibilities under the leadership of a flower export company. Soon hereafter they became part of the official IMT program in Ecuador through close contacts some members had with high politicians and key people who were in charge of UEP-PAT. By 1999, through UEP-PAT, the water users were working with the support of Utah State University on the consolidation of their organization at different levels (modular committees, water assemblies and the water user organization), the establishment of a normative framework for these organisations and the development of irrigation management skills based on the state guidelines and legal prescriptions.

Since then the organization has been managed by a general assembly and a directive board in which both *haciendas* and peasants participate in decision making. Under this 'new' autonomous management the water user association has ensured water delivery to both *haciendas* and peasant water users, expanded and 'modernized' the irrigation system, strengthened the overall organizational capacities of the water users, and amended the internal normative frameworks at different levels in the organization. Despite and sometimes because of internal conflicts and a constant struggle of the peasant water users to defend their rights, these changes have been brought about through internal collective action and cooperation among different factions of the organized water users.

In 2001, the WUA of El Pisque irrigation system became a founding member of AEJUR. In 2004, after three years of lobbying at the highest political levels (presidential candidates and presidents) through AEJUR, the water users were able to negotiate that the water users of the transferred irrigation systems were exempted from paying back the investment costs of the irrigation system as had been initially stipulated by the law and as part of the IMT program agreements. This significantly reduced the water fees that users had to pay to the state. Through AEJUR, the water user organization has stayed in close contact with MAGAP and other important state agencies throughout the 2000s. These contacts enabled the users to expand and modernize the irrigation infrastructure of their irrigation system mostly for the benefit of small peasant producers.

Box 2 The Chiticay-Paute irrigation system (based on Arroyo, Gacia and Robles, 2011)

Another irrigation system that went through IMT is the Chiticay-Paute irrigation system in the southern Ecuadorian Andes. Arroyo, García and Robles (2011) present a detailed case study of how the water users of this system have organized since the beginning of the 1930s. Through the financial investments of *hacienda* owners and labour of local communities, a first, but short-lived start was made in the construction of the main canal. After continuous lobbying of the *hacienda* owners, in 1959 the construction of the main canal was taken over by the Centre for the Economic Development of Azuay, Cañar, and Morona Santiago (*Centro de Reconversión Económica de Azuay, Cañar y Morona Santiago*, CREA). In 1962 the irrigation system, that was managed by CREA started to irrigate 200 hectares. In 1975, due to a lack of maintenance and a large canal collapse, the water users organized to make the irrigation system functional once again. This informal organization that was directed by *hacienda* owners started to manage water delivery and in 1979 CREA informally handed over the management tasks to the users, perpetuating the power differentials and inequity in access to water and decision making faculties between *haciendas* and peasant communities.

The water user association was legally formalized in October 1998 with a new normative framework based on the state guidelines and legal prescriptions. This new framework democratized the decision making processes within the autonomous organisations (at different levels) by giving both *hacienda* owners and smallholders the same formal rights in the organization. Additionally, by their participation in the Ecuadorian IMT program, several capacity building activities were organized by the consultants that executed the program. This empowered the smallholders (mostly peasants) that broke away from the long tradition of *hacienda* domination in the irrigation system. The key to this change was their participation -with voice and vote- in irrigation system management. Since then, users have demanded from their democratically elected directive boards transparency in the administration of finances, the implementation of rules and rights, the control over the beneficiaries (legal water users) and water allocations in the irrigation system. With external support, the water users have also pressurized most of the irrigation system to enable sprinkler irrigation and water delivery to the tail-enders of the canal. New water users have been incorporated into the system between 1997 and 2011 (from 400 to 764 families) and a small micro-credit program that is managed by the water user association has been established.

One issue which has kept water users associations close to external funding agents is that irrigation fees are a delicate issue as there is a general reluctance of water users to pay. This is partly coupled to fears of corruption and bad management by the directive boards and hired personnel. Therefore, in most irrigation systems, irrigation fees are just high enough to cover the administration and operation costs and many a directive board have been set down by the general assembly for raising the fees or for not being able to present financial statements. Through the utilization of outward looking social capital, water users have, until now, found that national, provincial governments and even municipalities have in most cases financially supported water users associations that had problems with their main infrastructure.

At national level, the indigenous movement, through CONAIE, has demanded in its water law proposal, that all water users with less than 5 hectares become exempt of paying irrigation fees. This has infuriated many water users associations that struggle on a daily basis to collect fees to operate and manage the irrigation systems. In the proposal of the CONAIE they see two important threats which are: 1) in view that most water users own

less than 5 hectares, most water users associations would not be able to collect sufficient irrigation fees to finance the operation and administration of the irrigation system; and 2) if the state would step in to cover these costs, the water user associations would lose their autonomy. Therefore the water users associations have defended irrigation fees through their own federations and networks such as the AEJUR and WRF.

4.7 Conclusions: Social capital transformation, peasants and NGOs

Based on a couple of case studies, this chapter has presented how, in the last three decades, autonomous supra-community water user associations have been co-produced in Ecuador. This coproduction is based on the transformation of social capital of peasant and indigenous communities into new irrigation centred socio-material local scales (modular committees, water assemblies and water user organisations managing their respective hydraulic units).

How NGOs and state agencies set in motion processes of coproduction importantly determines among whom and how social capital is transformed.⁶⁰ This has consequences for who get empowered and who get disempowered. This in turn determines the ways in which water user associations and irrigation systems work. In the case of Guanguilqui-Porotog, an explicit choice was made to work with, and support, the peasant and indigenous communities and their forms of organization and rights systems. This resulted in the haciendas losing most of their historic access to water from the irrigation system (the little water they got was only granted by the communities because of the state ruling), and a water user association that has been managed and recreated by the indigenous water users and their communities for almost three decades. This has been the result of IEDECA's explicit commitment to supporting indigenous communities, the existing community structures and the indigenous national federations and networks. This is reflected in their intervention methodologies, in which they coproduce the normative frameworks, the new irrigation management organisations, and the layout of the irrigation infrastructure through joint efforts, dialogue and negotiations of NGO personnel and the local communities; rather than imposing externally established frameworks. In their interventions, such as in the Guanguilqui-Porotog irrigation system, the state, haciendas and large landowners are often bypassed and their local power positions questioned and challenged.⁶¹

In Pillaro, as in other state irrigation systems, the coproduction process was in some ways reduced to the top-down introduction of state guidelines and designs, and to 'teaching' the 'new' water users how to manage their 'new' (externally designed) irrigation systems

⁶⁰ An important point of consideration is that, despite the general orientation of a specific NGO, within them, both geographically and in time, great differences exist in the way in which they implement projects. This depends on the partners they work with, the financiers that fund the projects, the relations these have with local societal and state organisations, and not least the personal skills and convictions of the individuals that work within these NGOs.

⁶¹ The issue of gender inequalities within households, and in the representation of the interests of women in water user associations, is often not explicitly addressed. The result is that decision making both in project implementation, and in the water user associations, tends to be dominated by males as traditional gendered roles are perpetuated. Slowly this is changing as more women technicians have been hired by IEDECA.

and water user associations (and sub-organisations). This created tensions with existing communities and organisations, such as for instance FOCCAP, even though peasant water users stood central throughout the intervention process. This also created tensions around the rules and regulations for water allocation as water is allocated according to the size of the landholding. Therefore, even though CESA is also centrally concerned with supporting the peasant and indigenous communities⁶², its intervention process in Pillaro was greatly curtailed and formed by the state guidelines. This resulted in a coproduction process that is based on the implementation of the state defined normative frameworks; even though some space for manoeuvre exists. For instance, CESA has made gender equality a central issue in its intervention processes and has greatly supported the water user associations in defending their collective water rights by creating new alliances and finding resources for the modernization and expansion of the Pillaro irrigation system. Additionally several support programs were implemented for the communities such as a micro-credit fund, capacity building in the production and commercialization of organic vegetables, milk and the production of Ginny pigs.

The external interventions in state irrigation systems within the Ecuadorian IMT programme were primarily aimed at ‘making user based irrigation management work’. Therefore the project implementers worked with those water users that were willing to coproduce water user associations to make the intervention ‘successful’ from the perspective of the intervening actor or funding agency. As a result these implementing agencies worked with both large landowners and peasants that saw in this programme an opportunity to improve their access to water by taking irrigation management in their own hands. In this sense, many water users actively took the spaces and roles that were given to them, by the newly introduced state normative frameworks to advance their interests. In the case of peasant water users, this often boiled down to challenging the local *status quo* that had been established by the state and landlords in the irrigation systems. In some irrigation systems, such as the case of Chicticay and El Pisque, this has led to a transformation of the normative frameworks (within the spaces of manoeuvre that the legal guidelines establish), and to a constant internal struggle between landlords and peasant water users. As a result, in some irrigation systems, peasants have been able to halt the (illegal) appropriation of water flows by the most powerful and the normative frameworks have been changed to favour the rights of the smallholders (pay lower fees and scarcity now affects all).⁶³ These changes are a reflection of the fact that peasant representatives have taken the spaces that were opened to them both in the general assemblies as well as within the directive boards of water user associations.

Yet, it is also clear that the opening of these spaces to peasant right holders does not always and necessarily result in greater inclusion, pro-poor normative frameworks and

⁶² CESA has worked both in community managed irrigation systems as well as in state managed systems on the consolidation of water user associations with the aim of supporting the development of peasant and indigenous communities.

⁶³ These changes have nevertheless not challenged the fact that because of their large extensions of land landlords usually have the ‘right’ to much larger allocations of irrigation water than smallholders do. This is established based on the state rule that defines that water is distributed in proportion to land ownership.

equitable water delivery. For instance in all state irrigation systems the state frameworks are still very powerful and give little room to manoeuvre. Therefore, water allocation is still determined in proportion to the size of the land, resulting in the biggest fish drinking the most, and the smallest the least, or, in other words, it is egalitarian but not equitable. Moreover, there are also reported cases in the coast of Ecuador, where water theft and accumulation by landlords at the cost of the rights of the peasants is at the order of the day.

It is clear that external actors, engaged in local processes of coproduction, actively steer at specific forms of social capital transformation amongst specific groups of people. Their interventions always compromise processes that empower some actors at the cost of others. Taking this as departing point, from a perspective on democracy and equity, this chapter shows that it becomes fundamental for interventions to support and explicitly work with peasant and indigenous communities on processes of coproduction (of the organisations and their normative structures) in a horizontal relationship between local actors and interveners; rather than on the imposition of top-down blueprints (even though this is not always the easiest way to make projects work). Only through this horizontal relationship between interveners and local actors does the true meaning of coproduction and empowerment come to its right as both parties weave together their efforts to bring about a desired change, for a specific group of people in a specific legal, cultural, social and economic context.

How such a process of coproduction resulted in the creation of a provincial water users organisations' federation that struggles for equity and the rights of the peasant and indigenous water users at broader scales is presented in the next chapter based on a case study of Interjuntas-Chimborazo.



Chapter 5: Interjuntas Chimborazo; defending peasants' water rights through a provincial federation *

I took this picture of Carlos Oleas, the president of Interjuntas-Chimborazo (right) and of Hugo Vinueza, vice-president of the federation (left), during a live radio broadcast on February 19th 2011, in Riobamba. The picture symbolizes the central role these two leaders have had in the development of the federation as a space that represents the interests of the peasant and indigenous water users of the province of Chimborazo, at provincial and national levels. The cap that Hugo Vinueza (a part-time farmer, water user and staff of CESA) is using, is symbolic for the close relationship Interjuntas-Chimborazo has had with NGOs. It is a cap of the Fund for the Protection of Riobamba's Water (*Fondo de Protección del Agua de Riobamba*, FOPAR); a joint initiative of Interjuntas-Chimborazo, CESA and the municipality of Riobamba. Finally, the microphone represents the importance that communication and the creation and maintenance of networks has for the legitimacy of the federation, both towards its member organisations, as well as towards external actors.

* This chapter is based on my article "Democratizing water governance from the grassroots: the development of Interjuntas-Chimborazo in the Ecuadorian Andes" (2012), published in *Human Organization*, 71, 76-86, and was expanded and updated to deepen the analysis and argument of this thesis.

5.1 Introduction

On the corner of the streets Guayaquil and Velasco, in the centre of Riobamba, the capital city of the province of Chimborazo, the radiobroadcasting institute ERPE (*Escuelas Radiofónicas Populares del Ecuador*)⁶⁴ owns a large colonial building. This building hosts a number of local initiatives that range from art projects to the cooperative of Quinoa producers of Chimborazo. After passing two internal patios, in one of the corners of the building is the Office of Legal Advice of Interjuntas Chimborazo.

In the small office, which is filled with documents and books edited mostly by NGOs, a couple of chairs in the centre of the room give the visitors a place to sit. The office opens to attend the water users from 8:30-13:00 every morning. A lawyer, specialized on water related legal issues, attends the water users that need to deal with the Water Agency for issues concerning their water rights. In the afternoon this same office hosts most of the meetings of the board and members of Interjuntas-Chimborazo. Although this office is just an 'office', it embodies the physical place of the water users' federation Interjuntas-Chimborazo. It offers a place for the water users to meet, to interact and give meaning to the actions of the different individuals which constitute the federation.

One of the main actors in the office and the water users federation is Carlos Oleas (see box 3); its president and founding member. During my fieldwork period in 2009, almost daily between 8:00 and 8:45am he would be at the Interjuntas-Chimborazo Office on Guayaquil and Velazco street, to discuss the day to day issues with the vice-president of the federation Hugo Vinuesa (see box 3), the secretary of the Office of Legal Advice and the two lawyers who worked at the office, and sometimes with other members of the federation. At the office he would usually get a short briefing by the lawyers and the secretary on the running issues of the day; the secretary got a couple of orders, the mail was read, if a computer was free Carlos would check his e-mail. Carlos often joked with the lawyers and discussed some of the legal cases and the last developments related to local politics and local, provincial and national water issues. If water users were there, he made a short talk with them about the water-related problems they had. His tone towards the water users was always interested, positive and committed. Throughout the day representatives of water user organisations would drop into the office seeking legal advice or looking for either Carlos, the lawyers or another member of Interjuntas. At least once or twice a week Carlos would also come in the afternoon to the office to have meetings with members of the board and with representatives of NGOs and state agencies.

⁶⁴ ERPE is a non-governmental foundation in Ecuador which strives to make the indigenous and mestizo population of the rural and urban areas the architects of their own development (www.erpe.org.ec/ accessed 25-11-2010).

Box 3 Carlos Oleas and Hugo Vinueza; president and vice-president of Interjuntas-Chimborazo

Carlos Oleas: Carlos Oleas lives in the town of San Luis at ten minutes from Riobamba, the capital city of the province of Chimborazo. He and his family own a couple of small plots within the Chambo-Guano irrigation system. The family basically lives an 'urban life' that is closely related to Riobamba. Irrigated agriculture as such is a part-time activity, that in terms of family income is of little significance. After a technical study, Carlos Oleas became engaged as 'social promotor' in a project of irrigation development in the Chambo-Guano Irrigation System between 1990 and 1995. Carlos' work was organizing these water user organisations at local level. He recounts how, at that time, he got to understand the important role water user organisations could play in water management.

I remember that our boss, an Italian, convinced us that water users were the ones who were to manage the irrigation system. We were accustomed that the State executed all these tasks and we just received the services (March 2009)

Around 1995 the Water User Association of the Chambo-Guano irrigation system (WUA CH-G) was consolidated. It united all the 82 water user organisations of the irrigation system under one umbrella organization. Carlos' work in stimulating and setting-up the water user organisations at local level made him a known figure within the irrigation system. He was elected secretary of the WUA CH-G. From this position he played an important role in the negotiations between the Ecuadorian State, Lotti&Associati S.p.A. and the WUA CH-G around the closure of the project and the turn-over of the infrastructure and materials that were left over from the project execution⁶⁵. After a short period as secretary, in 1997-1998 the board of the WUA CH-G, of which he was secretary got into problems of accountability and transparency. As a result the board was dissolved by the general assembly. Carlos Oleas stopped with his involvement in the WUA CH-G and started to work for the tree nursery of the municipality while pushing the Interjuntas-Chimborazo initiative in his spare/free time. His dedication to Interjuntas-Chimborazo was strongly supported by his work. In 2009, Carlos successfully ran for a position as 'concejal rural' (rural councillor) in the municipality of Riobamba, with Alianza PAIS. Since the rise of the federation and up to my last field work visit in 2011, Carlos Oleas has been the main public image of the federated water users of Chimborazo (as is further elaborated in this chapter).

Hugo Vinueza: Hugo Vinueza was born in the province of Imbabura and studied anthropology at the Universidad Central del Ecuador, in Quito. After his studies he got engaged in development work with national NGOs. Most of his career he has worked for the NGO CESA. His work has always been linked to water centred rural development programs. Most of his career he spent in the province of Chimborazo working on the social components of irrigation projects. A couple of years he worked in the province of Cañar on community managed domestic water supply systems, but his home base remained in Riobamba. In the late 1990s, he bought irrigated land in the Chingazo-Pungales Irrigations System where he had worked previously in the construction and social organization process of the irrigation system. He spends most of his weekends and after-work hours working the land and managing his irrigation turns. As user of the irrigation system, he got engaged in the board of the water user association and from that position he was asked to become the vice-president of Interjuntas in 2004. His conviction for encouraging and stimulating users participation in water management lies at the basis of his work at CESA and his longstanding engagement with water user groups and communities during his long career in- and with rural communities. His position at Interjuntas-Chimborazo, as well as the time he spends on the federation, have until now been greatly stimulated and supported by his employer; CESA. Often his time and travel expenses for meetings of Interjuntas outside of Riobamba are covered by CESA. Most of the projects in which he is involved are closely related to- and sometimes implemented in collaboration with Interjuntas-Chimborazo. This makes the boundaries between his position at CESA and that at Interjuntas-Chimborazo, at times, rather blurry.

⁶⁵ A process in which the WUA CH-G got almost all the materials from the project (cars, machinery, infrastructure, office buildings and more).

In 2005, from this little office a massive popular protest, with more than 4000 water users that occupied the state offices of the water agency, was organized in Riobamba to demand a transparent and equitable water administration at the Water Agency of the Province. During my fieldwork period Interjuntas organized workshops with more than 100 water users from around the province to discuss the draft of the Water Law; more than 3000 people were summoned to attend the national launch of the national water plan in 2008; and in 2010, during a public discussion on the water law, again thousands of water users were mobilized to Riobamba. Through the pressure of Interjuntas-Chimborazo a new director of the water agency was installed; a new state water agency was opened to attend the water users in Guaranda; a Kichwa speaking lawyer was hired at the offices of the Water Agency in Riobamba to attend the indigenous water users; the central office for the Pastaza watershed was installed in Riobamba; and several demands of the water users of the province of Chimborazo were included in the 2008 Constitution of Ecuador.

In this chapter I first analyse the rise and consolidation of Interjuntas-Chimborazo (section 5.2). In this analysis I show how, with the support of NGOs, the federation was co-produced. Then I present the networks and alliances through which Interjuntas-Chimborazo has become a widely recognized representative of the water users of Chimborazo. First, I describe the ‘internal networks’ of the federation and how these are maintained (section 5.3). Then I present the broader ‘external networks’ of the federation (section 5.4). In sections 5.5 and 5.6, I present: a) how these networks are actively maintained and mobilized by personal and institutional ties, and b) how through the maintenance and mobilization of these networks and their related resource flows into socio-material and discursive practices (proposals, projects, political agency), the scale of the water user federation is constantly (re)created and transformed. In the discussions I reflect on the role of leaders in the (re)creation of the federation (section 5.7). In the conclusions I bring together the most important issues of this chapter (section 5.8).

5.2 The creation of a water users centred network

5.2.1 The early stages of Interjuntas-Chimborazo

In early 1997, the first initiative to consolidate a federation of water users of Chimborazo emerged. The Government planned to reorganize the RDC of the Central Highlands (*Corporación Regional de Desarrollo Sierra Centro*, CORSICEN) by centralizing the three regional offices of the provinces of Chimborazo, Tungurahua and Cotopaxi with their respective WAs into a central office in Ambato, the capital city of Tungurahua. To avoid the planned closure of the provincial office, the state irrigation systems of Licto, Cebadas, Quimiag, Chambo and Chingazo-Pungales, organized the first Water Users Federation of Chimborazo (*Junta Provincial de Usuarios de Riego de Chimborazo*, JPURC). The organization was strongly supported strategically, politically and with resources by the staff of the regional office of the RDC that would have to be moved to Ambato. Through this platform, the water users organized mobilizations and politically pushed for the creation of a provincial RDC. They were successful and the Regional Development Corporation of Chimborazo (*Corporación de Desarrollo Regional de la*

Provincia de Chimborazo, CODERECH), which included a provincial Water Agency, was created in Riobamba in late 1997. This success developed much enthusiasm for the JPURC. At the time, the new Water Law and privatization of water rights were much-debated issues. For this reason, JPURC organized a large event with a mobilization and a large gathering in the city's stadium. During this gathering, members of a political party profiled their party as one of the key actors in JPURC. This infuriated several of the participants, especially the leaders of Chambo who had presided over most of JPURC initiative. In the words of a water user "they made us mobilize all our people, Licto 1200 people, Cebadas 700, Chambo and when we got there the speeches were so party-oriented; it was traumatic" (March 2009). As a result, the JPURC fell apart.

After the failure of JPURC, the first exchange of ideas among different WUAs came at a seminar on irrigation management transfer in the province of Chimborazo in 1998. This event was organized by the WUA of Chambo, which had signed a cooperation agreement with the SNV.⁶⁶ The agreement established that SNV, based on its experience with organizational strengthening of WUAs, would support the WUA of Chambo in forming a provincial third-tier federative platform.

Because of the JPURC precedent there was scepticism about creating a new federation of irrigation systems. On top of that, after the initial seminar, the Chambo WUA board was overthrown for problems of accountability, legitimacy and internal politics. Within the context of internal turmoil, the Chambo WUA stepped out of the process; at least as a lead organization. By this time, SNV had funding for two half-time staff members to work on consolidating a WUA platform in the province of Chimborazo.

To create a shared understanding of water problems in the province and to stimulate the creation of a provincial water users network, SNV -supported by a couple of other NGOs- started a cycle of workshops. Hugo Olazával, a professional from SNV led the process which was set up as exchanges to discuss and analyse diverse water issues amongst WUAs, to elicit proposals from the grassroots. To avoid problems of disputes for leadership, a rotating commission organized the seminars. In the JPURC most participants had been from the State managed irrigation systems, yet in order to create a broader constituency, the often-excluded and atomized community managed irrigation systems in the province of Chimborazo were invited to take part in the process. On 13 August 1999 for the first time leaders of irrigation systems from the whole province of Chimborazo came together under the umbrella of the *Comisión Interjuntas*. Between August 1999 and April 2001, fourteen exchanges were organized. In these exchanges, NGOs and SNV played a prominent role in organizing, supporting and structuring the *Comisión Interjuntas'* events. Exchange meetings, which often took three days with fieldwork, were financed through Swiss Development Aid. The meetings were attended by between 75 and 125 people from all parts of the province and from large and small irrigation systems alike. The organisations that helped organize and finance these events

⁶⁶ In Latin America, SNV had a strong water program focused on 'empowerment' until the early 2000s.

included local and national NGOs, local State organisations⁶⁷ and the local indigenous movement. Their roles were: a) methodological design and facilitation; b) financing; c) logistical support; and d) support for systematizing experiences. During these exchanges the representatives of the attending organisations got to know each other and each other's problems and perspectives, through open deliberation and representation. In this way, the political, religious and ethnic differences there existed among the diversity that represented the water users of the province was overcome. A common understanding of the water and irrigation problems in Chimborazo was established and a water users network consolidated. The main problems that were identified during these seminars were (Interjuntas-Chimborazo 1999; 2004):

- Conflicts over water in and among irrigation systems.
- Lack of internal communication and mutual understanding among WUAs.
- Lack of infrastructure, especially in community irrigation systems.
- Legal problems with state agencies.

To be able to tackle these problems the water users realized that they needed to be represented at provincial level. They had to formally consolidate the created grassroots network (federation) in order to become active participants in the discussions and decisions on water management at different levels. For this, a formal structure that would be legally recognized and endorsed by all water users organisations of the province was needed. The logic behind it was expressed as follows: "When one works on his own nobody takes him into account and sometimes he does not achieve anything, but being together and organized we can advance and achieve many things" (Licto irrigator leader Antonio Lasso during the August 2000 seminar, cited in Interjuntas-Chimborazo 2000). During the May 2000 seminar, the first steps were taken to consolidate Interjuntas-Chimborazo as a provincial water users' federation. This materialized in early 2001 (Interjuntas Chimborazo 2004). On 2 May, even though there was no formal organization established and the initiative remained mainly as an open network, the network opened its first office in the building of CESA in Riobamba. Both the office, the office equipment, a full time secretary/administrator and a small fund for the day-to-day costs of the secretary and leaders were financed by SNV that got this project financed through Swiss development funds (COSUDE).

5.2.2 Re-defining Interjuntas' mission - SNV's struggle to maintain Interjuntas

After the initial enthusiasm for the exchanges and its consolidation, Interjuntas-Chimborazo went through a difficult phase. The dedication of WUA leaders and users faded. Besides the mutual learning process, and the creation of a network, there was a lack of mission and few concrete results. The motivation to regularly come from faraway places for the Interjuntas-Chimborazo meetings -which often cost them money and time- had vanished. Nonetheless, there were two salaried people from SNV still working on/for

⁶⁷ The State institutions included the Provincial Council, the municipalities of Riobamba and Guamote, CODERECH and the Parish Council of Quimiag.

Interjuntas: the secretary/administrator, Yolanda Palacios, and an advisor, Edwin van Someren. As time went by, more responsibilities and work came to rest on Yolanda Palacios, who by the beginning of 2002 did almost everything. Her commitment to the work became the engine for activities undertaken as Interjuntas-Chimborazo. Meanwhile, Edwin worked on opening a dialogue between water users and the Water Agency in Chimborazo. Their aim was to make water-related legal processes and procedures at the WA more transparent and clearer:

We worked together with the WA, for instance, on a folder to explain which steps were required for the legal procedures, had a couple of meetings with water users, the WA director and their lawyers... there were major problems of corruption within the WA, but we wanted to work on it by making procedures more transparent; not by challenging the system. (Edwin van Someren, September 2009)

Despite this progress and the involvement of a few committed WUA leaders, there was little fervour for active participation in discussions or other events. The coordinator, Carlos Naula (a representative of one of the irrigation systems from the Guamote region), who had enthusiastically led Interjuntas for a long time, would not call for meetings and basically retreated. Meetings called by SNV staff would be attended by two or three people, ultimately winding down the energy level. In April 2002, Hugo Olazával, who had accompanied the process from the beginning as part of the SNV staff, was asked to evaluate whether SNV should continue to support this initiative, in his words:

No one said it was not necessary, but when asked why they would not attend the meetings they would say... 'we have meeting after meeting but that is all there is...' Talking to a woman leader from San Juan... she said that what Interjuntas needed was something of concrete benefit for the water users and proposed to open a legal support service ... WUA leaders in Guamote, Alausí and elsewhere in the province had the same problem with water-related legal issues... (February 2009)

As a response, and to give Interjuntas-Chimborazo a new mission, Hugo proposed to work on setting up a centre for legal advice and conflict resolution. To create ownership among WUAs and to revitalize the network, he negotiated renewed support from SNV, conditional to the renewal of the steering board through a wide electoral process that would formally institutionalize the platform. Once this was approved, SNV set out to get users around the table once again. Hugo strategically approached a committed leader who had stood out throughout the Interjuntas process and strongly believed in a provincial platform: Carlos Oleas from the Chambo irrigation system. Hugo's bet on collaboration with Carlos Oleas was a good one. A new mission, and Carlos' charisma and conviction, brought forward a new wave of enthusiasm. The first step to consolidate the platform into an organization was to establish clear rules and rights as well as a structure for the organization. These rules would guarantee representation of the different constituents from different regions, ethnic groups and irrigation systems. For this, by-laws were established and an election process to choose the new federation's board was organized.

5.2.3 Institutionalizing Interjuntas-Chimborazo

With a new mission and a charismatic and dedicated new water user taking the lead, the enthusiasm for a provincial federation returned. For the election process SNV led arrangements and a ‘mixed technical committee’, consisting of water users and NGO staff, joined in. Transparent election guidelines and procedures were established, especially as fears prevailed that things would become tinged with party-politics or overshadowed by the ethnic divide between the *mestizo* and indigenous population. The group of constituents who could vote (and would now form part of a formally recognized federation) was extremely heterogeneous. There were second-tier organisations, small irrigation systems (both communal and inter-communal) as well as the large state irrigation systems. After a couple of earlier meetings of the committee, on 21 May 2002, the first working draft of an election procedure was approved by the assembly. For the election procedures to become valid, the commission decided to have them approved through regional meetings that would bring together (all) the WUAs of that area (nine areas were identified for the province).

Getting the WUAs together for regional meetings took place in May, June and July 2002. These meetings put Interjuntas and its new mission again in the spotlight of WUAs. Participating NGOs used their project networks to promote this initiative and Hugo, often accompanied by Carlos Oleas, travelled throughout the province to inform on, and discuss the election summons process and institutionalization of the platform. To ensure regional and ethnic representation from the whole province, eligible candidate positions were identified as follows: one from every large irrigation system (Chambo, Licto, Quimiag, Chingazo-Pungales and Cebadas) and representatives of major irrigation regions (two from the watershed of the Chimborazo River, two from Guamote, two from Alausí; one from Pungalá; one from Chunchi, and one from Ceceles). Before becoming eligible at provincial level, these candidates had to be chosen as eligible candidates amongst their own constituency beforehand. They would become eligible for the provincial elections at which a broad board consisting of a president, vice-president, secretary, treasurer, and four general board members would be chosen. On 20 August 2002, the electoral tribunal was established, with two representatives from NGOs and two representatives from WUAs. On 27 August the general assembly gathered for the election process in Riobamba. The federation’s elected board reflected the very mixed background of its constituency.

The newly elected board set out to continue with the work of Interjuntas, while SNV’s involvement decreased. With renewed vigour, Interjuntas-Chimborazo set out to establish two distinct, yet complementary functions. The first function was to consolidate as ‘the representative and voice of the water users’ in water governance related issues at provincial and national level. The other function became that of offering legal advice, capacity building, and water-related legal services to the water users in the province through the Legal Advisory Office and other projects. These two functions have kept on giving the federation its *raison d’être* and mission. They have formed the core of its success as a space through which water users of the province fight for a place and a voice in water governance, even where there are no formal structures for participation in the

state agencies. As is shown in the remainder of this chapter, Interjuntas-Chimborazo has established itself as the voice and representative of Chimborazo's water users, by executing programs and developing political agency through its engagement, collaboration and struggles with its member organisations, NGOs and state agencies.

5.3 Engagement with the constituent organisations of Interjuntas-Chimborazo

5.3.1 'Weak' ties in the internal networks

Almost all the water users organisations that participated in the formation process of the federation have remained a member and the number of members has grown to around 320 member organisations since 2004.⁶⁸ Representatives of several member organisations come to the Office of Legal Advice when visiting Riobamba to try to find solutions when confronted with problems such as conflicts (within the water users organisations or with external agents), legal issues with regards to their water permits or in their search for projects aimed at improving their water use systems. Many other leaders often also come to the office to meet with Carlos Oleas and/or Hugo Vinueza, to mutually inform each other and maintain good contacts. Through these 'services', and the relationships they create with the leaders and lawyers, water users organisations are tied to Interjuntas-Chimborazo.

The almost daily presence of Carlos Oleas at the office of Interjuntas-Chimborazo; his close contact with the lawyers of the Office of Legal Advice; and his interest in the problems of people that come to the office for support and advice is crucial for the development and maintenance of these ties of reciprocity. These interactions give the federation a face and a person with whom relations of trust are established. At the same time these interactions inform Carlos about the problems and issues at play in the province. Through the interactions he has with the water users at the office he gets informed on multiple very localized problems and cases of the member organisations. These enable him to create a well-informed idea and narrative about the issues that are at play in the water governance arena of the province of Chimborazo.

This large group of constituents are often not actively involved in decision making within the federation. These groups of water users are mostly recipients of information, advice and sometimes projects through their direct contact with Carlos Oleas, Hugo Vinueza and the lawyers. Nevertheless, their participation in the federation is essential for the mobilization of popular protests, keeping the board close to the member organisations and for legitimizing the existence and functioning of the Office of Legal Advice. Through these relatively 'weak' ties (see chapter 2) the board of Interjuntas-Chimborazo has the capacity to summon thousands of water users of the province of Chimborazo for popular protests and massive public meetings.

⁶⁸ This number is used by the leaders of the federation when asked what the constituency of Interjuntas-Chimborazo is. As the federation has not kept a record of memberships it is, at most, a well-informed estimate.

The organization of mobilizations (for public meetings or for a popular protests) rests on the defence of broadly shared concerns within the network of water user organisations of the province, and the social capital that is formed through the personal ties the leaders have with the representatives of these water user organisations. The latter are summoned to participate in these massive events through a) direct invitations that are sent around by Interjuntas-Chimborazo to the leaders of the member water users organisations, b) through the use of widely listened to radio stations in the province, and c) by mouth to mouth invitations. Water user organisations usually send a delegation of people from among its constituents.⁶⁹ How many people come to these public meetings depends on the size of the irrigation system and the internal rules each water users organization has.

For these ties the radio has played an important role. Interjuntas-Chimborazo is hosted in the same building as the radio station of ERPE and has good contacts with the people that work there. This radio station has a broad outreach throughout the rural areas of the province of Chimborazo. It broadcasts in both Spanish and Kichwa. Interjuntas has used this radio channel since its beginnings to communicate to its rural constituency on water related issues and to promote, offer and make publicity for its Office of Legal Advice and its services. Often the communication is done through short spots or interviews to the leaders of the federation on specific themes. Besides these regular communications, in 2005-2007, with funds from the Water Law and Indigenous Rights programme (WALIR) that was coordinated by Wageningen University, a series of radio reports were made and broadcast as part of the activities of Interjuntas-Chimborazo. In 2011 a new series of ten radio reports on different issues related to water were organized as part of my fieldwork together with Interjuntas-Chimborazo. All of these activities have brought a regular stream of water users to the Office of Legal Advice, and enable the federation to mobilize large numbers of rural water users.

5.3.2 Strong personal ties in the internal network

Beside the large number of water users organisations that have relatively ‘weak’ ties with Interjuntas-Chimborazo, there is a much smaller and closer group of representatives of water users organisations who actively participate in the federation and in the broader provincial and national policy debates. These are the leaders of the large irrigation systems of Quimiag-Río Blanco, Chambo-Guano, Licto-Guarguallá and Chingazo-Pungales. This core group of people are often much more immersed in broader networks through their close relationship with state agencies and their policies, as well as NGOs. Because of this close relationship and sometimes also dependence on state institutions, the leaders of these organisations also recognize in a much more direct manner the importance of getting involved and developing political agency at provincial and national level by framing and defending ‘the vision and demands’ of ‘the’ water users of Chimborazo.

⁶⁹ In most water rights systems participation in mobilizations (just as in *mingas*) is one of the duties that are coupled to the right to access water.

This core group of representatives of the water user organisations are often called together by Carlos Oleas and Hugo Vinueza when a stance has to be taken with regards to policies or developments that directly affect the irrigation sector. Within this small group, that usually meets in the office of Interjuntas-Chimborazo, the issues that are at hand are discussed and the position of the water users of Chimborazo established. On occasions these same leaders join either Carlos Oleas and/or Hugo Vinueza to formal meetings with state officials, meetings of WRF, or larger events in which Interjuntas-Chimborazo is represented.

Apart from Interjuntas' leadership, during my fieldwork periods the two most active leaders were Carlos Chavez, of the Quimiag-Rio Blanco irrigation system, and Marcelino Pita, of the Chambo-Guano irrigation system. Their high degree of engagement in the organization, I attribute not only to the fact that they were at the head of state irrigation systems (thus, involving a constant negotiation with the state) but also to their spatial closeness to the city of Riobamba and the office of Interjuntas,⁷⁰ and the good personal relationship they had with Carlos Oleas and Hugo Vinueza.

These strong internal relationships are very important for framing water policies and the role of the federation in it. During my fieldwork for instance both Carlos Chavez and Marcelino Pita culminated their term as presidents of their respective water user associations, yet kept very much involved in the internal discussions of the federation. Their successors did not become actively involved in Interjuntas-Chimborazo. The same has happened in the past in which the active participation of specific water user associations in Interjuntas-Chimborazo was very much determined by the relationship the leaders had or did not have with Carlos Oleas and Hugo Vinueza. This highlights the importance of the strategic networking capacities of popular leaders in relation to their constituencies.

Two other leaders that were highly involved in the federation were Angel Tenezaca, who comes from the Guamote area, and Jose Villa, from the watershed of the Chimborazo River. Both represent the small irrigation systems of their second tier indigenous organisations. These two leaders were very much linked to Interjuntas-Chimborazo, not so much because of a broad interest in politics and policy debates, but because of the very concrete water related demands they had for the communities they represent and the strategic alliance that Interjuntas-Chimborazo and its Office of Legal Advice meant for them. The presence of both 'weak' and 'strong' ties within the network of members of the federation forms the basis of the social power that the water users movement of Chimborazo has developed. This commitment of members to mobilize in name of the demands of the federation, legitimizes both the leaders and Interjuntas-Chimborazo as a broad grassroots federation and as 'the' representative of the water users of the province of Chimborazo.

⁷⁰ The water users organization of Chambo-Guano has its main office in Riobamba and Marcelino Pita lives in Riobamba. Quimiag is only 20 minutes by car from Riobamba and Carlos Chavez is very regularly in the city.

5.4 External networks and alliances of Interjuntas-Chimborazo

The capacity of Interjuntas-Chimborazo to a) develop political agency in different spaces and b) maintain the services and different functions that tie its constituents to the federation, greatly hinges on the alliances the federation has and is able to close with NGOs, state agencies and other institutions through outward looking social capital. As Carlos Oleas explains, he and Hugo Vinueza are very much aware of the importance of establishing and being active in networks:

Interjuntas must always seek strategic alliances. It shouldn't and can't isolate itself even though it is a strong organization. To remain strong, means making alliances. With regards to that, although we are not strategic allies with the indigenous movement of Chimborazo, we maintain a good relationship with it. We have a good relationship with SENAGUA with which we work on a lot of issues together... we have started to work with the Ministry of Agriculture... We are well related to NGOs such as CESA, ACRA, SNV... the Universities of Chimborazo and also Wageningen University... (March 2011)

After the consolidation of Interjuntas-Chimborazo, and the establishment of the Office of Legal Advice, SNV stopped its water programs in Ecuador. Nevertheless by the time SNV stopped its programs both Carlos Oleas as well as Hugo Vinueza were well inserted in the water related NGO- and state networks at both provincial and national level. Through these networks, representatives and leaders of the federation have been able to a) develop political agency in different governmental and mixed spaces at regional and national level, b) attract funds and programs from NGOs through which Interjuntas-Chimborazo has financed the Office of Legal Advice, c) become a member of water centred multi-stakeholder platforms, and d) channel water related projects in which Interjuntas-Chimborazo collaborates, but which are executed by NGOs and state agencies. Table 4, presents a list of institutions with which Interjuntas-Chimborazo has strategic alliances (both past and present).

Carlos Oleas and Hugo Vinueza, are regularly at formal and informal meetings with the directors of the regional offices of INAR, MAGAP and SENAGUA in Riobamba as well as with NGOs and other state and non-state actors. Many of these strategic alliances have developed into close personal ties. This collaboration often works for the mutual benefit of the involved institutions. For instance Interjuntas is involved as intermediary between many irrigation systems -that want to get support for modernizing or expanding their irrigation system- and INAR or NGOs. Through their personal and institutional ties, Carlos Oleas and Hugo Vinueza, often facilitate the approval and implementation of specific projects that are implemented by state agencies and NGOs. For these, the collaboration with Interjuntas-Chimborazo is an easy way to identify potential beneficiaries of their projects and to legitimize the investment choices that are made. Thus the institutional linkages, and their reference to the representational scale of the whole province, help both Interjuntas as well as the other actors to achieve their objectives, and form a source of mutually constitutive legitimacy.

Table 4 Strategic institutional alliances of Interjuntas-Chimborazo (own elaboration)

Institution	Kind of alliance/relationship/reciprocity
<i>State agencies</i>	
Provincial Council and Municipalities	Coordination of projects and programs in the environmental- and water governance sphere.
CODERECH/INAR and other ministries	Organizational strengthening of water users organisations and participatory planning for irrigation management at provincial level/ implementation of capacity building programs for water users and the modernization of irrigation systems and actions for the protection of watersheds framed as IWRM.
SENAGUA/Water Agency	Social control over administration of water/mutual political support/creation of shared provincial agendas that are presented at national level/participation in collaborative decision making and agenda setting
<i>Non-governmental originations</i>	
SNV	Between 1998 and 2004, technical, financial, and logistical support for the development and organizational strengthening of Interjuntas-Chimborazo as organization and in terms of political agency and the development of broader networks; as well as setting up the Office of Legal Advice.
CESA, FEPP, Islas de Paz, ERPE, ACRA, COSPE, AVSF, Eco-Ciencia	Technical, financial, logistical and capacity building support to Interjuntas-Chimborazo as well as a broadening of networks for establishing strategic institutional alliances for the creation of development project proposals to (inter)national donor agencies and state institutions.
CAMAREN	Establishment of capacity building programs and popular publications for water users of Chimborazo and Ecuador at large.
<i>Social movements organisations</i>	
Indigenous Movement of Chimborazo	Defence of human and water rights of the water users of Chimborazo
FEDURICC and other provincial federations	Regional political agenda setting for water resources management
<i>Platforms in which Interjuntas-Chimborazo has a membership</i>	
Foro de los Recursos Hídricos	Debate water governance issues at provincial and national level in a mixed forum and develop political agency through joint research, publications, organization of events, writing of letters and presentation of proposals to state agencies and the national government (facilitated by staff and through CAMAREN). Interjuntas

	is a member at both provincial and national level.
FOPAR	Trust fund conceived in 2008 as a financial and technical tool for the protection of the Chambo River Basin by co-financing activities, projects and programs aimed at the restoration of the quantity and quality of the waters of the Chambo River Basin. The constituent organisations are CESA, the Municipality of Riobamba and Interjuntas-Chimborazo.
Chambo River Basin Council	Chaired by SENAGUA, this council was created in 2010 bringing together ministries, NGOs, provincial, municipal and parish governments as well as organized water users (Interjuntas-Chimborazo) to agree on actions and programs aimed at the sustainable management of the Chambo Basin.
CODERECH	Until its dissolution in 2008, Interjuntas was the formal representative of the water users of Chimborazo in the Directive Board of this provincial institution.
<i>Other allies</i>	
Permanent Commission of Human Rights in Chimborazo	Legal support to the lawyers of the Office of Legal Advice
Wageningen University coordinated WALIR and Concertacion programs	Institutional support, joint action-research, documentation of the experiences of the federation and the Office of Legal Advice.

5.5 Good networking in a supportive environment: the activities of Interjuntas-Chimborazo

5.5.1 Recreating the Office of Legal Advice

The first years of its existence, the Office of Legal Advice as well as the secretary of Interjuntas were paid through funds that came directly from SNV. Later, through the good contacts Carlos Oleas kept with Hugo Olazabal, Interjuntas-Chimborazo was able access a small fund for institutional strengthening from WALIR. The proposal for the activities that were to take place as part of this program was set up by Hugo Olazabal and Carlos Oleas. It included the creation and organization of a series of radio reports on water, the systematization of the conflicts and cases that had been solved by the Office of Legal Advice,⁷¹ and funds to finance a capacity building activities.

In 2007-2008, ACRA had a small project with Interjuntas-Chimborazo. Through ACRA, Interjuntas-Chimborazo got a technician that worked one year on the modernization and organization of a small irrigation system that is affiliated to the federation. This

⁷¹ These have been published in Dávila and Olazaval 2006.

technician also supported the Office of Legal Advice. As part of this project ACRA financed and paid the technician and part of the salary and operational costs of the lawyers and the office. This entailed that the lawyers, together with the technician, set up a capacity building program for water users, organized public meetings, gave in-the-field-trainings and made capacity building documentation (see Fassi, García and Peralta 2008) to inform the water users on the legal and administrative procedures at the Water Agency.

In 2008-2009 through AVSF and CESA, the federation engaged in a project that focused on the solution of water conflicts among communities through the intermediation of the Office of Legal Advice. Through this project some of the costs of the federation and the lawyers were financed. At the same time Hugo Vinueza, who is employed by CESA, was set on the execution of this project giving him a lot of time to spend on activities related to Interjuntas-Chimborazo and the implementation of this project. Besides the few examples mentioned here, other small projects to support the Office of Legal advice and the federation have been channelled through CAMAREN and other NGOs. Despite these projects and support the financial situation of Interjuntas-Chimborazo and the Office of Legal Advice is frail.

It is well recognized by Carlos Oleas that despite the legitimacy, recognition and good services to its member organisations Interjuntas-Chimborazo and its Office of Legal Advice is not financially self-sustaining. Even though some income is generated through the services offered, the activities and services of the federation, since the beginning, have been financed mostly with external funds. The good networks and willingness of development NGOs to support the activities of the federation have enabled it to financially sustain the Office of Legal Advice and its activities. Nonetheless it is a constant struggle for the board to find and manage new sources of external support. Because of a lack of funds, since the end of 2009, the office only works with one lawyer (the secretary and second lawyer were laid off). Part of this struggle, and the great difficulty there is in creating a financially healthy organization, I attribute to weak project management skills of the board, something I experienced first-hand as explained in Box 4.

My experience was not an exception. During my fieldwork, many of the partner institutions that had directly financed Interjuntas-Chimborazo and its activities reported the same patterns in which they recognized a weakness of the board to manage projects and funding according to the standards of external financiers. Many of the interviewees also mentioned that the external support of committed development workers have maintained Interjuntas-Chimborazo and its activities. In this sense, Hugo Olazabal initially played a key role by getting funding and logistical support from SNV and later WALIR and ensuring that these projects were executed and rounded off. Later personnel of ACRA and AVSF 'took' over these responsibilities ensuring that new funding (mostly small funds of less than US\$5000) kept on flowing to the federation. This is facilitated by Carlos Oleas who has a great capacity to link and brace. He is always very enthusiastic about any new project that involves the federation. He is well articulated and in his enthusiasm and ideas he is able to enrol people and institutions with the federation, or to

enable the ideas of others through the federation. Yet, even though he facilitates all of this, it is other people that carry out the project formulation and implementation.

Through his networks, Carlos has had offers from Ministries and the municipal and provincial government to fund activities of the federation and the Office of Legal Advice. Nonetheless, all of these offers have until now not been used by Carlos because a) the fear of compromising the federation politically and losing its independent character, b) the fact that according to the Ecuadorian Law the federation would be no longer legally recognized as an organization, and c) because the board has never written a project proposal to access these funds.

Since its origins many members of Interjuntas-Chimborazo, as well as external advisors have proposed mechanisms to financially maintain the federation and its services. These proposals mostly fall under either a) charging the members a small membership fee that would enable the federation to finance its activities and b) raise the costs of the services provided by the Office of Legal Advice.

- Charging a fee to all the members of the federation has been discussed with the leaders of some of the larger irrigation systems of the province. These are positive about the proposal of charging every member of the irrigation system US\$ 0.50-1.0 yearly contribution to finance Interjuntas-Chimborazo and the Office of Legal Advice. For a couple of years this proposal has been talked over but it has never been implemented.
- Raising the costs of the services provided was also talked about for a couple of years. It was never implemented until 2011. In this year, after the lawyer had worked for six months without pay and threatened to leave, the costs of the services provided by the Office of Legal Advice were raised moderately in order to try to close the financial gap.⁷²

Carlos has always been afraid that such measures would scare the members off and that, if the federation would have more money, it could become a potential source of problems as people would be interested in Interjuntas-Chimborazo and becoming part of the board not because of their conviction but because of personal financial interests. Whether this is the only part of the story is debatable as there might also be a fear of creating an extra accountability mechanism, but the result is that the activities of Interjuntas-Chimborazo and the functioning of the Office of Legal Advice are financially constrained and that

⁷² The charges for legal advice at Interjuntas-Chimborazo cost (even after the tariffs were raised) only a fraction of what other lawyers charge for their services. A regular lawyers fee for a water permit starts usually at around US\$700 and might double or triple if the procedure takes a long time. At Interjuntas the fees depend on the size of the irrigation system, starting at US\$100. The fees at Interjuntas-Chimborazo are also fixed, whereby half the money is paid for at the start of the process and the other half is paid for when the procedure is closed.

most activities undertaken as Interjuntas are financed by external agents as is explained below.⁷³

Box 4 Getting funds for Interjuntas-Chimborazo; my personal experience

In 2009 and 2010 I helped Interjuntas-Chimborazo to access funds from the Concertación project that is coordinated by Wageningen University. This small project was intended to strengthen the Office of Legal Advice. It started with a discussion on the problems Interjuntas-Chimborazo was having with the finances of the Office of Legal Advice. The external funds had run out and the office was not able to earn enough money to pay the lawyers. During the discussion I was asked if I did not know of some source of funding through which the Office and some of its activities could get funded. After this discussion I set out to find out the possibilities there were within Concertación. There were for a small project of US\$ 6000, but as with most projects a proposal and budget were required. I thought the proposal would be written mainly by Carlos and Hugo and I offered to help. Consequently, after my insistence on the proposal I was asked to write a draft of the proposal (including the budget and proposed activities). The first payment was made and a second payment would be made conditional to a small progress report that was due by the end of 2009. When I returned in February 2011, the report was still not written despite the great financial problems at the Office of Legal Advice. During the first week of my stay, I wrote the first draft of the progress report for Interjuntas-Chimborazo. Carlos and Hugo helped me with the final touches of the report and later signed it. With this, the second payment was made, but a final report to the financing institution was never presented.

5.5.2 Interjuntas' activities as collaborative undertakings

Besides the direct financing of the activities of Interjuntas-Chimborazo, many NGOs execute project activities in collaboration with the federation as part of their capacity building, networking and organizational strengthening activities. For the execution of many of these projects Interjuntas-Chimborazo is a good partner. NGOs usually fund and logistically support activities such as the organization of public meetings, advocacy and capacity building events. The contents of the events and training programs are usually decided upon by both Interjuntas and the NGO staff. The participation of Carlos Oleas and Hugo Vinueza is important in these events, as through their networks, they are able to mobilize a critical mass of water users to these events.

Interjuntas has also become a partner in many externally funded projects of NGOs and state agencies in the province of Chimborazo. These projects are fully implemented, managed and run by- and with the technical expertise of the staff of NGOs and state institutions. Some of these projects include the modernization of small irrigation systems, the protection of water sources, environmental education and a project aimed at supporting farmers with irrigation in the conversion to cash crops and their access to markets. Interjuntas has no financial benefits from these projects. Its contribution to these is as a network through which the programs can be implemented. In turn, Interjuntas links its members to the benefits of these programs, which through their contact with Interjuntas, get the label 'participative'. These collaboration projects are important for the federation in terms of legitimacy towards its internal and external networks. Many of

⁷³ Initially the Office of Legal Advice was set up with two recently graduated lawyers working half time and a half-time secretary that did all the administration and support activities for the federation. Since mid-2009, because of financial insolvency, the office has been run by just one part-time lawyer.

these activities are, for the members, a very concrete benefit based on which many engage in the network. For external institutions it shows that Interjuntas-Chimborazo is an active federation that strives to represent the interests of their constituents while at the same time working on the implementation of small projects through its strategic alliances.

One of the mechanisms/initiatives through which Interjuntas-Chimborazo has been involved in many water related projects in the province is the *Fondo de Protección del Agua de Riobamba* (Fund for the protection of the waters of Riobamba, FOPAR). In September 2008, Interjuntas-Chimborazo together with the municipality of Riobamba, CESA and with the support of the AVSF established FOPAR. This trust fund was conceived as a financial and technical tool created for the protection of the Chambo River Basin. This fund co-finances activities, projects and programs aimed at the restoration of the quantity and quality of the waters of the Chambo River Basin⁷⁴. This fund has been financed by the European Union, USAID, COSUDE, the Ministry of Social and Economic Inclusion, the Water Fund of the City of Quito (*Fondo para la Protección del Agua*, FONAG),⁷⁵ and the Water Agency Seine-Normandie (France). The technical secretariat as well as most projects are managed by CESA and AVSF. The main focus areas of the activities executed in the FOPAR framework are:

- Programs of environmental education offering practical training to children from schools in rural and urban sectors of the Chambo River Basin and conceived as an important strategy to foster environmental consciousness in younger generations.
- Programs for the protection and restoration of springs, sources and creeks, which works through actions such as reforestation and other protective efforts to preserve headwaters and watercourses by keeping grazers out, restoring the natural vegetation and stimulating river bank protection activities.
- Program for water monitoring, aimed at monitoring the water quality and quantity of the Chambo River and its tributaries, to have good data to inform the further development of the programs.
- Programs for Integrated Water Management that aim to bring all the users and stakeholders of the Chambo River Basin together in dialogue to come to shared views, projects and solutions for the challenges faced in the watershed.
- Programs for water awareness campaigns and communication aimed at providing, through public media campaigns, key information to water users of the Chambo River Basin and people concerned about water protection in general.

This fund has enabled above all CESA and AVSF to access several funds that are channelled through FOPAR but which in practice are executed by staff of CESA.

⁷⁴ See also www.protecciondelagua.com (consulted 11/05/2012).

⁷⁵ A private trust which operates, since January 2000, as an economic financial mechanism, which uses the yields of its trust to co-finance activities and conservation projects, and river basins that provide water to fulfil the human and productive needs of the Quito Metropolitan District, and its areas of influence.

5.6 Alliances for the development of political agency

5.6.1 Political agency at provincial level

One of the levels of decision making in which Interjuntas-Chimborazo is very active is the provincial level. At this level, besides its collaboration and participation (which results in agency) in the execution of projects and the creation of new platforms (FOPAR and River Basin Council of the Chambo River) with NGOs and state agencies, it has developed political agency in spaces of decision making in state agencies such as the Water Agency of Riobamba (SENAGUA), CODERECH (and later INAR), and the provincial government. One very clear example of the development of political agency at provincial level is the relationship and achievements Interjuntas has with the WA (later SENAGUA).

At the end of 2003, the Interjuntas-Chimborazo Legal Advisory Office started to work with water users in dealing with the provincial WA. Through its lawyers and leaders, several complaints of corruption, ethnic discrimination and bribery had been filed at the WA. The demands of Interjuntas-Chimborazo for just, equitable treatment of all water users fell on deaf ears. In response the Legal Advisory Office established a dossier to document the injustices and problems that water users experienced. With the dossier, Interjuntas-Chimborazo started a lobbying process at provincial and national levels to change the director of the WA. For this, a legal process was started, but with a change in the national political set-up and a new head of CNRH, the process stopped and the head of the WA office was reinstalled. In response, on June 27th 2005 a massive mobilization of more than 4000 water users was organized in the city of Riobamba.⁷⁶ The mobilization ended with the occupation of 18 days of the WA office. The water users occupied the offices until their demands were heard and several agreements reached. The agreements included the dismissal of the director and the secretary of the WA office and the establishment of a transparent, open public procedure to establish a new director. This procedure was carefully supervised by Interjuntas-Chimborazo. In January 2006, a new director was chosen and the WA office became more just and stopped its practices of discrimination based on economic, social, regional or ethnic differences. Legal procedures have become more transparent and corruption in the WA has been curbed. In the words of Hugo Vinueza:

With SENAGUA we started with a very bad relationship, struggling with a Water Agency that had a lot of problems... [Through our struggles] they saw that our proposals were clear. As a result, since at least 2006, we have had a lot of meetings with SENAGUA. Through these meetings, various of the demands we have had, have been met favourably. (March, 2011)

The relationship with the regional director of the Water Agency is important for both institutions. It has become important for the director of the WA to remain on good terms with the water users federation because Interjuntas-Chimborazo forced the change of the

⁷⁶ This case has also been documented by Dávila and Olazaval (2006) and by Boelens and Parra (2009).

previous Director through mobilizations, protest and the establishment of a social audit on the election procedure for the new director. Through this, Interjuntas-Chimborazo has gained legitimacy as a social auditor of the WA of Riobamba. The Office of Legal advice has kept a watchful eye on its functioning and how they deal with the water users. From its side, the Office of Legal Advice is also favoured by a good relationship with the WA in order to get the legal cases filed and solved.

Formal and informal meetings between the regional director of the WA and Carlos Oleas, Hugo Vinuesa and the lawyers of the office of legal advice are common. Many of these meetings are used to discuss specific cases that have been filed by Interjuntas-Chimborazo. Others concern more general issues regarding the problems and challenges the two institutions have. This has resulted in the WA sending most people that need a lawyer or advice on water issues to the office of Legal Advice Interjuntas-Chimborazo. Likewise the WA has sent an increasing number of conflicts, which it cannot solve within the frameworks of the Ecuadorian Water Law, to the Office of Legal Advice. Some important achievements that have resulted from the close ties Interjuntas-Chimborazo has with the director of the WA in Riobamba are:

- A Water Agency in Riobamba where all water users are attended and respected and where their cases are treated without bribes.
- That the WA of Riobamba is the first and only WA in Ecuador that has hired a Kichwa-speaking lawyer to attend the indigenous population in their own language.
- In 2010, as suggested by Interjuntas-Chimborazo, a new office of SENAGUA was opened in Guaranda to attend the water users of Chimborazo that are part of the Guayas basin. Without this office users would have to travel to Guayaquil (a one day journey) to resolve all their administrative water issues.
- In 2011, through the collaboration and pressure of both Interjuntas-Chimborazo and the WA Director of Riobamba on the national secretary of SENAGUA, Riobamba was made the central coordinating office for the Pastaza River Basin.

A similar relationship has developed between Interjuntas-Chimborazo and the former CODERECH (later INAR). These close relationships between the president of Interjuntas-Chimborazo and the directors of state institutions are key for the development of political agency of Interjuntas-Chimborazo at both regional and national level. They also serve as mechanisms to legitimize the state institutions in front of the users. This relationship, although important for the development of political agency, also holds the threat that Interjuntas-Chimborazo, in fear of breaking the good relationships it has with an institution, stops scrutinizing its personnel, policies and work; something Carlos Oleas is well aware of:

We are always meeting and talking with national organisations that deal with water resources, ... through these conversations... we seek ways to improve the water users' conditions. Yet... if at any time, in order to defend users' rights, Interjuntas must raise its voice in protest against any authority, we will do so...

but... at the same time, we will support those actions [of state agencies] that benefit the water users, regardless of the political position it comes from. (March, 2011)

5.6.2 Political agency at national level

To defend the rights and interests of the water users of Chimborazo, Interjuntas-Chimborazo engages in spaces of decision-making at national level. Its engagement is, in some cases, directly as Interjuntas-Chimborazo. In other cases it has been able to develop political agency through its participation in WRF. Even before Interjuntas-Chimborazo was formally established the water users were able to influence decision-making at national level. For instance, in 1997, the organized water users successfully struggled for the creation of CODERECH; a decision that was taken at national level. In 2005, although the mobilization and occupation of the Water Agency of Riobamba were in Chimborazo, the whole process to change the director of the Water Agency of Riobamba was negotiated in Quito with the Director General of CNRH.

Another example of the political agency that Interjuntas-Chimborazo has developed through its national network is related to the ongoing discussion over irrigation management transfer of the state owned irrigation systems. The main question in this discussion is and has always been whether they should accept the state led irrigation management transfer programs and, if so, under which conditions. This framing process, which is also informed by discussions within WRF, has until now (despite renewed insistence by the State) kept almost all WUAs of state irrigation systems in Chimborazo from accepting irrigation management transfer programs, and has forced several negotiations and/or outright confrontations with the state irrigation agency. A remarkable example concerning such a process played out in Spring 2009, when the State set out to implement new regulations to get a stronger grip on the irrigation systems. These regulations required WUAs to draft new by-laws in compliance with newly established guidelines. Interjuntas-Chimborazo consensually decided that this new regulation had to be blocked, as it would entail cumbersome administrative procedures for all WUAs while impinging on their autonomy. At a meeting in Quito (at the head offices of the State irrigation agency), for final approval of these new regulations, WUA representatives from the province of Chimborazo joined by WUA representatives from the province of Cotopaxi and other provinces blocked this policy initiative. Herewith they defended the autonomy of hundreds of WUA's nationwide.

During my fieldwork period, I also joined Carlos Oleas and Hugo Vinueza to a couple of meetings with the National Minister of SENAGUA. One of these meetings was on 20 January 2011 and is explained in Box 5. Through meetings like these, Interjuntas-Chimborazo has been able to directly put forward, at national level their specific demands and/or proposals.

Another important mechanism through which Interjuntas-Chimborazo has been able to exert political agency at national level is through WRF. As an active member it regularly attends the national meetings organized by WRF. In these meeting recent developments

in the water sector at national level are discussed and framed in a broad forum. Based on these discussions, letters of concern or policy proposals are written and sent to National Ministers (mostly SENAGUA, Ministry of Agriculture and Ministry of the Environment), members of the National Assembly (parliament) and the President of Ecuador. Most of these letters are signed by all the member organisations of WRF. Whether these concretely result in political agency is hard to measure, but one thing they have certainly done is to put WRF and its members on the national political agenda as an important water centred ‘think-tank’ (see also chapter 6). The clearest example of the political agency WRF and its members have developed since their creation, is their contribution to the water issues that have become part of the Ecuadorian Constitution of 2008 as is further explained in the next chapter.

Box 5 Materializing Interjuntas’ demands through Carlos Oleas’ personal networks

On January 20th 2011, at 4 am I woke up in Riobamba and was picked up by Carlos Oleas to go to Quito. At 9:00 we were in Quito at a workshop for the conformation of the Citizen Participation Council of SENAGUA. Interjuntas-Chimborazo had been invited to this national event along with several water centered organisations... yet Carlos’ focus was directed at the next meeting he had planned. At 13:00, without the lunch that was coupled to this event, we left for the SENAGUA central offices.

At SENAGUA, Carlos sought Luis Salazar, the Regional Director of the Pastaza Watershed, who is responsible for the Water Agency of Riobamba, and with whom he is well connected. Both had arranged a meeting with the National Secretary of SENAGUA. After a short wait the three of us entered the office of the National Secretary. I was briefly presented, after which the meeting began. During the meeting Carlos pledged for the transfer of the Regional Office of the Pastaza Watershed from Ambato (in the Tungurahua province) to Riobamba because: ‘the problems with the administration of water are much more pressing in Chimborazo’. At the same time he suggested that the Water Agency of Riobamba needed more administrative and legal personnel to be able to handle the amount of administrative procedures at the WA, and serve the water users better (something that Luis Salazar had mentioned to Carlos beforehand). In exchange Carlos offered that Interjuntas-Chimborazo would organize/summon the water users of Chimborazo (at least 5000) for the opening of the Regional Office.

The meeting did not take more than 20 minutes but the needed exchanges and negotiations had taken place. Soon thereafter SENAGUA officially presented its plan to move the Regional Office of the Pastaza Watershed to Riobamba.

Carlos Oleas and Hugo Vinueza have maintained themselves as the spoke-persons and leaders of the federation for more than 10 and 8 years respectively. In 2009, Carlos Oleas was noticed by the political party Alianza Pais. He was asked to run as candidate for rural councillor for the Municipality of Riobamba. By mobilizing his networks he was successful in winning a seat by majority vote. This political position of Carlos Oleas was heavily criticized by the members of the federation that have other political affiliations and that demanded that Carlos leave the presidency of Interjuntas. For other members this move was seen as a new good step to further develop and entrench the political agency of Interjuntas-Chimborazo.

In 2011, when I returned to Chimborazo, Carlos was still the president of Interjuntas-Chimborazo while also being rural councillor of the Municipality of Riobamba. One thing that had changed was that Carlos frequented the Interjuntas office less, and that, for the water related meetings he attended as Interjuntas's president, he could use the driver and car of the Municipality. Yet at the water related meetings he never alluded to his post and/or alliance to Alianza Pais and was in fact very critical of the functioning of SENAGUA. His political networks had expanded, but other than that, not much seemed to have changed. The Office of Legal Advice was still in serious financial problems as no 'political' financing (by either the Municipality or the Provincial Government) had been accepted. The collaboration with NGOs for the implementation of projects had also been maintained and Carlos Oleas as president of Interjuntas was still able to summon a great part of the constituency of Interjuntas-Chimborazo to meetings and public events. He had not lost the build-up social capital despite his mingling with politics; an issue which had been the greatest fear since the beginning of the formation of the federation. Carlos Oleas cleverly steered his discourses and positions in the different spaces and with the different actors. Nevertheless, big question marks can still be established with regards to how democratic the internal functioning of Interjuntas-Chimborazo is. To some degree Carlos Oleas and Hugo Vinueza often operate and represent the federation and 'its interests' as an autonomous duo which can, when they consider necessary, mobilize a large number of water users of the province. How long these two leaders can remain legitimate in the networks in which they operate, and how Interjuntas-Chimborazo as a federation will change, evolve or dissolve in the future is still an open question.

5.7 Conclusions: The central role of leaders in the recreation of scale

Interjuntas-Chimborazo has established in the last decade as an instrument, for peasant and indigenous water users of the province of Chimborazo, to up-scale their struggles for water rights. The formation of social capital amongst the water user associations of the province of Chimborazo was important for its creation. It was brought about through exchanges and capacity building activities that were facilitated by NGOs. These activities established a broad network. Nevertheless, for its consolidation into a provincial federation, charismatic leadership (see role of Carlos Oleas and Hugo Vinueza) and the support by external actors (SNV, CESA, ACRA, AVSF) and its committed professionals (see role of Hugo Olazaval, Edwin van Someren and Yolanda Palacios) were important. Through methodological and logistical support, NGOs were key in a) facilitating the creation of a water users network with a shared understanding of water problems, and b) (re)establishing a clear mission for the federation.

In turn, the leaders of Interjuntas-Chimborazo have played an important role in its recreation by maintaining and expanding the links amongst water user associations, and by offering the water users services through the Office of Legal Advice and strategic contacts with NGOs and state agencies. Carlos Oleas and Hugo Vinueza have developed sharp networking skills and are proficient in acts of cultural performance. These enable them to maintain a network and frame arguments and publicly perform according to the context in which they operate. As such they have become intermediaries (brokers)

between external state and non-state agents and their constituency. In doing so, they recreate the federation, its importance, successes and relevance.⁷⁷

Despite the achievements and skills of the leaders, their position is not uncontested. Carlos Oleas and Hugo Vinueza have represented the federation for over a decade, without calling out for new elections for the board; even when Carlos Oleas took a political position at the Municipality of Riobamba. They have maintained their legitimacy towards a large number of their member organisations by constantly recreating the internal networks. The basis for these are the successes the leaders book in forwarding the demands of the peasant and indigenous water users vis-a-vis the state agencies; the brokerage for the implementation of projects that benefit the water users of Chimborazo; radio communications; and the delivery of the services offered by the Office of Legal Advice.⁷⁸

In terms of scale, this case shows that the success of social strategies for empowerment is closely related to the ways in which geographical scale is considered and mobilized. This case shows, that reference to the provincial spatial scale of the federation has become a central issue for the development of political agency. This scale is constantly reproduced through scalar politics. The main actors of the federation continuously mobilize the discourse and relevance of scale as they highlight the importance and stakes of the federation vis-à-vis the internal as well as the external networks. In doing so they gain particular forms of recognition and legitimacy that enables the leaders to defend specific claims and mobilize resources. Not only is the reference to scale mobilized by the leaders of the federation; non-governmental organisations and state agencies also strategically use reference to this scale to legitimize their interactions with Interjuntas-Chimborazo. Although I did not specifically analyse the framing of scale in this chapter, it is an underlying premise and an inherent element that smears the development and maintenance of both the internal as well as the external networks through which Interjuntas-Chimborazo is constituted and recreated. This recreation is an ever becoming process which rests on the continued interactions among the water user associations of the province of Chimborazo, their leaders and differently scaled NGOs and state agencies. Through these multi-scaled interactions, the water users of Chimborazo have developed political agency both at provincial and national level. How this political agency has been developed at national level is analysed in the next chapter based on a case study of the multi-stakeholder platform the Water Resources Forum (WRF).

⁷⁷ This development of an organization that is well connected to NGOs and state agencies, and in which leaders play important roles, shows a lot of parallels with the Costa Rican peasant movement organisations as described by Edelman (1999).

⁷⁸ Even though the maintenance of these services has been under constant pressure because of a lack of funding to pay for personnel and the maintenance of the office.



Chapter 6: The Water Resources Forum; national policy advocacy through networks and platforms

September 5th 2007, I took this picture. From left to right Maria Teresa Ore, an academic and representative of a Peruvian NGO (IPROGA), Aline Arroyo, at that moment the coordinator of WRF/CAMAREN, Carlos Oleas, the president of Interjuntas-Chimborazo, Vladimir Ortiz, a representative of the University of Cotopaxi, and Manuel Chango, the then secretary of the FEDURICC. This mix of people from different sectors that come together to share and frame ideas on water management with the aim of developing proposals has been the key purpose and main activity of the national multi-stakeholder platform WRF. WRF has developed considerable political agency in the 2000s and has become for many water user organisations a space that has facilitated their empowerment. In this chapter, I describe how this network was created and has developed itself since the mid-1990s as a policy advocacy multi-stakeholder-platform with considerable political agency at national level.

6.1 Introduction

When the president of the National Constituent Assembly of Ecuador, architect Fernando Cordero, presented the final draft of the Ecuadorian Constitution in July 2008, he proclaimed “This Constitution is made out of water” (García 2010). It included a large number of articles related to water and its management, of which the most celebrated one is the recognition of the human right to water. Many civil society organisations felt that their demands had been included in this new Constitution of Ecuador⁷⁹. The process that led to this constitution was the basis on which such a progressive document could be drafted. It resulted, for a great part, from the prolonged and steady presence and involvement in the national political arena of committed individuals, NGOs and social movement organisations with visions of a better, more just and sustainable society (Andolina, Laurie and Radcliffe 2009, Jameson 2011). Some of these individuals and movement leaders had become part of the *Movimiento Alianza País* (see chapter 3.6), others were hired by the new government into key positions within different ministries, others led the democratic process for drafting the new constitution, and finally many others actively participated from ‘outside’ by making proposals and lobbying for the inclusion of these in the constitutional text. The result of the participative process that led to the new constitution was such, that many of the articles that were included in the Constitution, came directly from proposals of NGOs and grassroots organisations as attested by García (2010) who states that:

The achievements in the Ecuadorian Constitution of 2008 with regards to issues on water are not the property or legacy of any single organization, institution or platform in particular; it has no owners nor proprietors. To have such a ‘wet’ Constitution is the result of accumulated social and political histories over the past twenty years... (p. 174)

In this chapter, I trace the origins, constituency and development of the *Foro de los Recursos Hídricos* (Water Resources Forum, WRF), one of the policy advocacy platforms that played an important role in the Ecuadorian water users movement. In section 6.2, I describe the context, main actors and dynamics that have made WRF a nationally recognized multi-stakeholder platform that critically analyses and proposes new and progressive policies for Ecuadorian water governance. I show that this broad-based platform, its development, activities and proposals are propelled and coordinated by a group of committed professionals. In section 6.3, I explore how this platform was able to exert political agency and book great successes through the inclusion of many of its proposals in the 2008 Constitution of Ecuador and the hotly debated ‘new water law’. In the discussion, I reflect on the role of NGOs and professionals in the creation and sustenance of this platform, focusing on the issue of representation of interests and the relations that exist between organized water users and other institutional actors, in terms of the development of political agency at the national level. In the conclusions I critically

⁷⁹ This constitution was also declared one of the most advanced Constitutions with regards to the themes related to water by the International Federation of Public Services in 2009.

retake these elements and show how these have contributed to the Ecuadorian water users movement.

6.2 Creating political space through a multi-stakeholder platform

The origins of WRF can be traced back to the early 1990s when both the Swiss (COSUDE) and the Dutch government (DGIS) tried to develop a capacity building programme for state employees, practitioners and community leaders on natural resources management in the country. This initiative was coordinated with MAGAP and the local branch of the Food and Agriculture Organization of the United Nations (FAO). The evaluation of this initiative was rather negative and prompted an alternative for organizing the capacity building programs. NGOs, together with MAGAP took up the initiative. In 1995, they created CAMAREN and its offices were placed in the building of MAGAP. Its members were six NGOs,⁸⁰ MAGAP and the Advisory Commission of the Environment (*Comisión Asesora Ambiental*, CAM). Its constituents defined that CAMAREN would work on the principle of making capacity building programs based on the experiences that NGOs had accumulated through their projects and programs; most of which had been in the Andes region. Five capacity building programs were identified which were: irrigation, domestic water supply, management of páramos,⁸¹ soil management and agroforestry. The design of these programs was worked out through multi-institutional working groups, in which the contents, themes and logistics of the capacity building programmes were defined. Once the contents and methodology were set, capacity building materials that brought together and systematized the experience of the participating institutions were translated to capacity building materials and methodologies. The programs were inspired on Paulo Freire's ideas on education, and were designed so that they could be implemented in different parts of the country, where relevant experiences could be visited.

Through the implementation of these programs, a broad network of participants and trainers quickly developed (above all, but not exclusively in the Andes region). After two years, this network included numerous community leaders, over 90 institutions and more than 120 capacity builders (García 2009). This network was based on a mutual collective learning process that relied on the exchange of ideas and experiences. This network of people and institutions came to be known as the 'CAMAREN space'. Within this space, slowly, new ideas and discourses on the management of natural resources developed and started to transform the way natural resources management was framed and conceived of amongst NGOs and some of the personnel of national ministries. One of the main changes it brought about was a change from a technically dominated view on natural

⁸⁰ CAAP (Centro Andino de Acción Popular), RAFE (Red Agroforestal Ecuatoriana), CESA, CECCA (Centro de Educación y Capacitación del Campesinado de Azuay), FEPP and CARE. Later other institutions also became members of CAMAREN including IEDECA, CICDA-AVSF, FUNDES, IEE, the Universities of Cuenca and Loja and the Ministry of the Environment.

⁸¹ Páramos are high Andean ecosystems. They are found between the continuous forest line and the permanent snowline. Its vegetation is composed mainly of giant rosette plants, shrubs and grasses.

resources management to one that included attention to gender equality, empowerment, participation and sustainability.

After four years, CAMAREN and its training programmes were evaluated with most of the participating institutions. The evaluation concluded that the capacity building activities were well established, but that a different space had to be created in which the problems of natural resources management in Ecuador could be analysed, evaluated and proposals could be established and pushed forward. The proposal was to create an open multi-stakeholder platform for dialogue and exchange of ideas around the issues of water and irrigation management and through these the agrarian sector and the management of natural resources would also be discussed.

In the irrigation sector, earlier attempts had been made to create a national platform that would bring together NGOs, state institutions and water users. In 1996, as a result of a couple of national and inter-Andean workshops on the IMT process (also financed with Dutch and Swiss funds), the Inter-institutional Forum for Irrigation (*Foro Interinstitucional de Riego*, FIR) was formed. It brought representatives of water user associations, NGOs and state institutions together, with the aim of forming a multi-actor platform for dialogue, analysis and the creation of proposals for irrigation management at the national level. Some of the issues that would be dealt with were: how and where to invest funds; how to deal with conflicts within and among irrigation systems; how to institutionally organize irrigation management; and how to manage water resources. This initiative was presided by CNRH, and the secretariat was established with CESA. Because of a lack of action by the presidency, which was put in the hands of CNRH, the initiative fell apart. Some actors felt that CNRH invited only those actors with which it was aligned and several actors were side-lined. As a result, many feared that it would end up being a politically led process and decided not to participate. This short-lived initiative, which quickly rose and fell, nevertheless created a stock of linking social capital in a network of interrelated actors from the irrigation and water management sector. Some of the NGOs that had participated in FIR were also members of CAMAREN. Based on a) the evaluation of CAMAREN, and b) the networks that were created in the CAMAREN space and the FIR initiative, CAMAREN and its member organisations decided to establish a national multi-stakeholder platform (forum) to debate issues and generate proposals related to the management of natural resources; with an explicit anti-neoliberal agenda. This marked the beginning of WRF.⁸²

Since its beginning, WRF was conceived of as a plural and open platform that was formed by its participants. According to one of its founders, it aimed to become a national platform, as opposed to many other forums that had emerged in the 1990s mostly in Guayaquil and Quito. It aimed to bring together multi-ethnic groups, grassroots organisations, individuals, non-governmental organisations, state institutions and academics from the whole country to analyse, debate and create proposals on water resources management. As stated by one of the founding members and now the secretary of WRF, Antonio Gaybor, 'we started with the idea that we would create proposals and

⁸² The initiative was again funded by the Swiss (COSUDE) and Dutch (DGIS) governments.

that these proposals would be taken up and defended by the institutions and organisations. ...⁸³ Initially, in view of this departing point, a strategic choice was made not to formalize this space as an organization but to give it the position of an open multi-stakeholder platform, that conceives of itself as:

*... an open, democratic and plural space. In it there are participants of: popular organisations, NGOs, governmental institutions, universities, unions, water users organisations (both irrigation and domestic water supply) local and regional governments. All these participants contribute to the analysis of the situation of water resources and to the formulation of proposals to improve its management. The WRF is a space to collectively build and jointly propose alternatives for the management of natural resources.*⁸⁴

6.2.1 Building on national and provincial networks...

As mentioned earlier, WRF has become a space that has gained institutional and political recognition at national and regional levels. WRF is organized through a national platform (*mesa de trabajo*) and provincial forums. The national platform is the national representative of WRF and has been chaired and coordinated by staff of CAMAREN since the beginning.⁸⁵

Beside the national platform, in several provinces Provincial Water Resources Forums have also been established under the same premises. Many of these provincial forums already existed before WRF was institutionalized at national level. In some provinces such as Azuay, Chimborazo and Cotopaxi several NGOs together with sometimes water users federations and local governments already had multi-stakeholder meetings to analyse the different problems of the province and coordinate efforts related to natural resources management at provincial level. As related by a member of the Provincial Water Resources Forum of Cotopaxi, Mónica Garcés:

We already had a space for dialogue. In 1995-1996 we came together with various NGOs to investigate possible coordination of efforts for shared objectives. The idea was to establish an inter-institutional coordination. By 2001-2002 we proposed to coordinate around the theme of the environment with the Provincial Government and grassroots organisations. [...] By the end of 2002 we got articulated with the WRF and began to call ourselves the Cotopaxi Water Resources Forum. (February 2010)

⁸³ Interview, February 2011.

⁸⁴ This text is placed in all of the publications that come forth from the WRF. See also http://www.camaren.org/joom_site/index.php?option=com_content&view=section&id=4&Itemid=6

⁸⁵ A part-time executive secretary (Antonio Gaybor) and a full time coordinator (Aline Arroyo -between 2001 and 2010-; and Carlos Zambrano -since 2010) have been appointed at CAMAREN. The executive secretary is the public figure and 'manager' of WRF. The coordinator is in charge of the organisation of the different activities that are carried out under the umbrella of WRF at national level. Both these members represent WRF in most of the public meetings and events to which WRF is invited.

These provincial spaces -each one with its very own dynamics, members and capacities- are articulated, though at different degrees, to the national platform. The conglomerate of provincial and national platforms, in which water issues are debated in an open manner with a plurality of institutions from all sectors, quickly became a nationally recognized space in the water sector. Edgar Isch, an academic and member of WRF, put it as follows when he was the Minister of the Environment of the left wing government in 2003:

*The WRF gives an example on how to deal and analyze the conflicts that are generated around water. With the participation of all the sectors that are linked to the theme popular and scientific knowledge are brought together to analyze the water sector and generate proposals through open debate. These factors enable us to ratify that the political and governmental institutions should take the proposals of the WRF to transform them in policies at national level. At the same time we should consider this experience as an example that is worthwhile repeating around other areas of natural resources management.*⁸⁶

According to García (2009), the WRF has, through its history, gone through four different phases which are:

- Positioning of water management on the national agenda and its social legitimation (2001-2002).
- Broadening of the social and political constituency of the WRF (2002-2003).
- Development of political agency through the creation of public policy proposals and the pronouncement of public statements with regards to water resources in Ecuador (2004-2006).
- The construction of public policies by including most of the proposals that had been devised in WRF in the 2008 Constitution and drafts of the national water law (2007-present).

Through these phases, several governments that have come and gone in the last twelve years, have recognized WRF as a critical and constructive platform. Yet its development and position has not been uncontested and a couple of ruptures have taken place. Since its very beginning, staff of UEP-PAT fiercely opposed this platform and even advised COSUDE to stop funding it; because WRF was very critical of IMT and the neoliberal reforms that were introduced in the water sector. The most remarkable rupture was marked by the departure of the indigenous movement (CONAIE) from WRF. It had been an active member from the start of the process but in 2004, after WRF publicly presented their new project for a new water law in several provinces, CONAIE withdrew. It stated that WRF did not represent their interests enough and some of the advisors of CONAIE even accused WRF of defending 'neoliberal' proposals. Beyond these accusations, it is presumable that the underlying issue of representation of interests triggered the rupture and fundamentally hit the question of 'who is visible and who represents whose interests

⁸⁶ Discourse of Edgar Isch, Minister of the Environment in the Second National Meeting of the WRF, Quito 2003, cited in García (2009).

in different spaces?'. On the other hand, throughout the years, a lot of new water users organisations such as AEJUR, provincial initiatives of water users federations and water user associations have joined WRF.⁸⁷

6.2.2 Tapping international resources

According to Biekart (2007), in the last decades, European NGOs and donor organization have financed a large number NGOs (and their activities) in the Global South. One of main spear points of much of this support has been the development of 'political participation' from civil society. With the aim of developing the voice of the marginalized and promote active citizenship through democracy, several long term programs have been financed in Latin America. Some donors chose to support specific 'strategic' areas and concentrate on a few larger and longstanding partnerships in the South (see for instance Bebbington and Kothari (2006)). As shown in previous chapters, in Ecuador several northern donors invested in irrigation development and the empowerment of peasant and indigenous water users. This attention for increasing peasant and indigenous users' participation in water management went hand in hand with the broad acceptance of several principles of integrated water resources management. These stipulated an increased participation of water users and other stakeholders in decision making (Berry and Mollard 2010, GWP 2000).

Besides the cases studied in chapters 4 and 5, CAMAREN and later WRF also greatly benefitted from these efforts, which importantly contributed to its coproduction. The activities of WRF have been financed through CAMAREN, that has been able to mobilize a constant flow of international resources to finance networking, research, capacity building, political advocacy, exchange and mutual learning activities. Many of these activities are carried out as WRF. COSUDE has been the main financer of these activities. Some of the other sources of funding have been, ACRA, the European Union, Dutch based NGOs ICCO (The Interchurch Organization for Development Cooperation) and Hivos. Additionally several capacity building, research and exchange programs that have been carried out with the Water Resources Management Group of Wageningen University, have also contributed to the recreation of WRF-CAMAREN. These capacity building programs have been financed by DGIS (WALIR and Concertación) and the Netherlands Organization for International Cooperation in Higher Education (NUFFIC). Within the framework of NUFFIC, CAMAREN, together with Dutch partner universities and Mexican, Peruvian, Bolivian and Colombian partners, has implemented several capacity building programs in the field of Integrated Water Resources Management and Agrarian Policies and Development.

These international programs have enabled many of the staff and participants of the WRF/CAMAREN space to get in contact with international ideas and networks. Through the international programs, academics, experts, NGO staff and grassroots leaders from the different countries have come in contact with each other, have learned from others'

⁸⁷ Many of these new organisations became part of the network through the capacity building activities of CAMAREN.

experiences and have created shared ideas and conceptions. The bases of these exchanges are mutual visits. Through these exchanges, for instance, Ecuadorians learned about the struggles, strategies and proposals of water users organisations and NGOs in Peru, Bolivia and other Latin American countries. Through the NUFFIC funded programs the participants (both staff and students of these programs) visited Peru and Mexico.

6.2.3 Engaging a broad social base

The WRF National Assembly

One of the important strategies of WRF to engage in- and among a multiplicity of water related stakeholders in Ecuador has been its National Assembly. The National Assembly has been organized since 2002, as a massive national event that brings together a very broad audience of participants to debate and discuss water issues. The first National Assembly was held in 2002, with 370 participants from 9 provinces of Ecuador. The National Assembly has gradually grown in size and composition of participants. The first National Assembly was dominated by representatives of NGOs and state institutions. Yet throughout the years an increasing number of representatives of grassroots organisations (farmers unions and water users organisations of domestic water supply and irrigation systems) from throughout the country have become part of this event while the number of representatives from NGOs has slightly decreased. In 2012, the seventh National Assembly of WRF was held in Quito bringing together 855 participants (the majority were water users) from 23 of the 24 provinces of the country.⁸⁸

Box 6 E-mail sent to WRF network with proposals sent to the National Assembly of Ecuador

 Foro de los
Recursos Hídricos



El pasado Miércoles 18 de Julio 2012, representantes del Foro de los Recursos Hídricos se reunieron con el Presidente de la Asamblea Nacional, Arquitecto Fernando Cordero y trataron temas en torno a la Ley de Aguas y la Consulta Prelegislativa.

El Foro de los Recursos Hídricos durante algunos años ha analizado la problemática del agua y ha presentado un conjunto de propuestas, algunas relacionadas con el marco normativo. En el VII Encuentro Nacional desarrollado el 7 y 8 de junio del presente año, se analizaron varias temáticas entre ellas las relacionadas con la Ley de Aguas y la Consulta Prelegislativa.

Con estos antecedentes se elaboraron documentos de propuesta en estos dos temas y junto con el documento de Conclusiones del VII Encuentro Nacional del Foro de los Recursos Hídricos fueron entregados al Presidente Cordero, con la finalidad de que dichas propuestas sean acogidas e incorporadas por la Asamblea Nacional.

Para su conocimiento adjuntamos los documentos entregados a la Asamblea.

⁸⁸ This event is prepared by the core group of the national platform and is logistically and financially coordinated by staff of CAMAREN and its member institutions.

The National Assembly is organized around defined themes. To prepare these themes local studies are done through contracted researchers and practitioners and sometimes NGOs. The results of these studies are then presented at the National Assembly. By means of discussions these studies then often become framed in the national context and sometimes lead to the creation of policy proposals. To broadly spread these results of the discussions of the National Assembly, the most important studies, discussions and conclusions of this event are systematized and later published. The inputs of these events is often also the departing point for engaging in activities aimed at the development of political agency (see box 6).

These broad national events have strengthened WRF both nationally and locally as a recognized platform that analyses and proposes policies in the water sector. These events have enabled WRF to a) broaden the existing networks through bridging and linking capital in the whole country ;and b) learn and get to know a multiplicity of local realities, ideas and experiences. Most of the contacts that are established at these large events basically exist as 'I know who you are, what you do and where I can find you. Here we have come together to learn from each other's problems and realities'. Sometimes these contacts lead to concrete actions, research and proposals. For instance the attention of WRF was drawn to the large 'water grabs'(Mehta, Veldwisch and Franco 2012) that were taking place in the Ecuadorian coastal region around banana and sugar cane plantations (Gaybor 2010). For this case first research was done, published and broadly shared. Later the research results were used to substantiate the proposal of WRF that demanded a revision of the water concessions (allocations) in Ecuador to ensure a socially just distribution of water in the country. A proposal that was included in the 2008 Constitution.

Capacity building and exchange activities

The capacity building activities of CAMAREN and its partner organisations, are also an important way in which a broad base of multi-actors get engaged in WRF. Through these capacity building activities the participants are exposed to many of the guiding principles, ideas and discourses that have been developed at WRF, CAMAREN and its national and international partners. Through these courses the CAMAREN-WRF network has been gradually expanded. The basic courses that have formed the backbone of the capacity building activities have been the five courses that were initially developed by CAMAREN, which are: management of domestic water supply systems, soil conservation and management, management of páramos, irrigation management, and local development. These courses have been given almost on a yearly basis and have been constantly updated and transformed to keep them up-to-date. Additionally, several other courses such as those funded by NUFFIC, have importantly supplemented the core capacity building activities.

The organization of, and participation in, workshops and seminars related to different aspects of irrigation and water management have also formed an important form of networking and deepening the debates on these issues. The broad network of individuals and institutions that, through the years, have visited and contributed to the construction of

the different WRF activities, have been the building blocks of the social construction of this platform and its positioning in the Ecuadorian water governance agenda.

The National Platform of WRF

In order to organize and plan the National Assembly and other WRF activities, the national platform of WRF has periodic meetings with a large number of its members. Because most of the sessions are held in the offices of CAMAREN in Quito, the majority of the attendants to these sessions (between 10-20 people per meeting) are members that reside in Quito and nearby provinces; or those that have the means to fly in from other parts of the country (some Universities and NGOs). The meetings are structured around specific issues and/or themes are led in the form of an open dialogue. The meetings end with a shared lunch, which giving all the attendants the opportunity to informally network, dialogue and foster their mutual relationships.

To work out proposals and analyse specific issues in depth, working groups are created from among these participants. These are commissioned to draft proposals, that are subsequently presented and discussed again in the national platform meetings. These working groups are always coordinated by at least one representative of CAMAREN and a small and dedicated core of individuals (most of them working for either CAMAREN or NGOs). During my fieldwork the most active group within national platform of WRF consisted of: one representative from the Universidad Central; the national secretary- and the coordinator of WRF; two other staff members of CAMAREN; a representative of AVSF; a representative of CESA; a representative of FONAG; the president of FEDURICC, the president and secretary of Interjuntas-Chimborazo; the president of AEJUR; and an externally hired consultant. Apart from the hired consultants, all these members attend these meetings and cover the costs for transportation either as part of their regular work time, or in their own time and with own resources.

Participation in inter-Andean networks and programmes

CAMAREN-WRF are also important contributor(s) to inter-Andean exchange and collaborative learning and policy advocacy networks. As mentioned it actively worked in the DGIS funded inter-Andean projects WALIR and CONCERTACION that worked in Peru, Bolivia and Ecuador. They are also key partners in the international water justice alliance and the Andean Network of Postgraduate studies in Integrated Water Management (*Red Andina de Postgrados en Gestión Integrada de Recursos Hídricos*) with partners from Ecuador, Bolivia, Peru, Colombia, the Netherlands and Spain. Additionally grassroots leaders, NGO staff and CAMAREN staff visited several inter-Andean international conferences in both Peru and Ecuador as well as meetings in Colombia and Bolivia. A small commission of CAMAREN members has been present at the diverse World Water Forums, Social World Forums and other international conferences both in- and outside of Latin America.

Through these international exchanges, the debates in WRF (and more broadly water resources management in Ecuador) have been enriched and broadened. New ideas such as the human right to water, integrated water resources management, river basin

management and the democratization of water governance have been introduced and broadly debated in Ecuador. A lot of these ideas have also been adapted and operationalized for the Ecuadorian context through broad discussions and their socialization through internal meetings and the National Assembly of WRF. These processes of discussion have led to a large number of policy and project proposals that have surged from WRF and its member organisations.

6.2.4 The importance of committed professionals

The coordinator of WRF (first Aline Arroyo and since 2010 Carlos Zambrano), the national coordinator (Antonio Gaybor) and a broader support team from within the network, have been the engine through which the activities of WRF are coordinated and financed; cementing the three building blocks that have been presented above together under the umbrella of WRF. Antonio Gaybor was trained as an agricultural economist. He has worked in leading functions in both state institutions, research institutes and NGOs since 1976. Since 1982 he is principal teacher at the Universidad Central del Ecuador and has been one of important intellectual leaders of both CAMAREN (since 1996 as Executive Secretary) and of WRF (since 2000 as National Coordinator). Aline Arroyo is a sociologist by training and has worked within in the irrigation sector of Ecuador since the early 1990s. She worked for several NGOs and international cooperation organisations (including CESA, CICDA and SNV) before she joined CAMAREN in 2004. From her position at CAMAREN she has been involved in WRF. Carlos Zambrano has also been involved in the water management sector since at least the 1990s. His professional career has been a mix different positions in both state institutions as well as in the development sector of Ecuador. Through their long involvement in the water management sector of Ecuador, these individuals have developed through the years a very broad network of people and institutions in this domain. These connections have been an important source of social capital through which an important part of the WRF network has been developed and recreated.

To coordinate and operationalize the abovementioned activities Antonio Gaybor and either Aline Arroyo, Carlos Zambrano or someone else from the CAMAREN team usually take the lead in drafting proposals and establishing the needed links to find funding. They coordinated and often write most of the proposals, research, research documents and official letters of WRF. These professionals also play an important role in establishing and coordinating the strategies for developing political agency; while also (but not exclusively) representing WRF in most of the dialogues with high-ranking officials of the government and with stakeholders who are not part of WRF. All of the documents that are produced by this coordinating team in name of WRF, are sent out to the member organisations which can adhere or back these proposals by signing them, before they are officially handed over. Despite these iterations and spaces for dialogue, some actors that have participated in WRF since its creation, sometimes feel that in the initial phases of the national platform the processes of internal dialogue, participation and decision-making were more intensive than at present. Some of these members also mentioned in interviews that they feel that the coordinating team has taken too many responsibilities and decision making faculties on their shoulders.

To a certain degree, it is true that CAMAREN staff have a special and sometimes determining position within WRF. This position comes from the fact that they spend most time in WRF activities and take a lot of the coordinating work -and the making of proposals- on their shoulders. And, though they work based on the debates and discussions of the collective, their personal preferences and personal styles cannot be separated from the work they do. Antonio Gaybor is a well-articulated and sharp intellectual who is well connected to a large network. Because of these advantages and his position as national coordinator, he often plays a central and leading role in discussions and in the framing of issues that are discussed in meetings. He also has a great capacity to link with people and engage them in debates and activities. Thus, although with a very different style than for instance, Carlos Oleas, he is a good cultural performer in the spaces of WRF and those where he represents WRF. The two coordinators WRF has had are likewise well articulated and are good organizer and networkers that, together with the CAMAREN team and support from NGOs, have been the motor behind the coordination of all of the activities that are undertaken as WRF.

An issue, for which the coordinator(s) and secretary of WRF have received some internal criticism, is the disconnect that sometimes exists between the processes and dynamics of the provincial forums and the national platform. Some provincial entities feel that there is a lack of coordination and sharing of information from the national platform. They feel that there is no national strategy, work plan and/or agenda. Even though the larger agenda is reflected in the themes of the National Assembly, the day-to-day agenda and activities of WRF are, for a very great part, driven by ad-hoc events, as is with most of the advocacy platforms. The provincial platforms that worked best during my field work period, were also those that worked on ad-hoc issues that were of importance and concern in their own province(s).

Just as WRF, in which most of the activities are discussed and organized by a small core group, many of these provincial forums depend on the initiative of one or two individuals who actively organize these spaces of dialogue and reflection (in all the cases I visited the ones that pulled the cart were professionals from NGOs). During my fieldwork, for instance, the Forum of Chimborazo only met twice. These two meetings were held on the initiative of the WRF coordinator that wanted to discuss and be informed about the state of the provincial forum and basically the discussions that were held revolved around how to reinvigorate the space. Even through proposals and ideas were made to bring about the desired changes these two meetings did not change much in the local dynamics. On the other hand, the provincial forums of the provinces of Pichincha and Azuay-Cañar were very active at that time. Both Forums had regular meetings and often produced proposals, initiatives and analysis documents that were sent around the e-mail list of WRF. Despite the marked differences in dynamics and constituency, in many provincial forums there are some members who are very active in WRF (sometimes more than in the provincial forum) but not necessarily as delegates of the provincial forums. For instance both Carlos Oleas, as president of Interjuntas-Chimborazo, as well as Ramiro Vela, the president of FEDURICC, were more active in the national than in the provincial WRF meetings.

6.3 The development of political agency at national level

As mentioned earlier, WRF has been able to contribute to a couple of changes in national ministries such as CNRH, MAGAP and INAR, and to the national legal frameworks such as the Constitution of 2008 and the water law that is still in discussion. These changes have consequences for how the state through its ministries operates and carries out policies that affect all irrigation and water users in Ecuador. One of its first successes and concrete proposals were presented in 2004. After the National Assembly of WRF a proposal for legal reforms was presented to National Congress and a law suit was opened and won against the Consultive Council of CNRH⁸⁹ that had extended water concessions indefinitely to some users (which was unconstitutional). Furthermore at this stage, WRF started a broad debate against the privatization of the provision of domestic water supply services in some of the cities of the country and further rejected the Free Trade negotiations that were being held with the United States of America. These included some important issues concerning water resources. In subsequent years, WRF presented new and amended proposals to National Congress and established several positioning documents with regards to public policies and the legal frameworks around water.

At the personal level, and showing the broad networks and recognition of WRF and its members, several of the core members of WRF have been invited to take up important directive positions in ministries and commissions of the state. Within the government of the '*revolución ciudadana*' (see chapter 3.6) alone, the following people have been approached: one of the core members of the Universidad Central became the director of INAR (and some staff members of CESA also joined INAR); the national coordinator of WRF was approached to become minister of SENAGUA but refused; the hired consultant that had worked on the water law of WRF, was hired as principal advisor of the minister of SENAGUA; and other members were asked to work as consultants for different ministries. Additionally, and as mentioned earlier the two leaders of the provincial water user federations of Chimborazo and Cotopaxi were also incorporated into the government as rural municipal councillor and as governor⁹⁰ respectively. Beside these personal 'moves', the capacity building programs of CAMAREN have been increasingly funded by governmental agencies, and several NGOs that are members of WRF have been hired by the government for the execution of projects. For instance, CESA was given an important role in the land distribution programme of the '*revolución ciudadana*'; AVSF-CESA were hired to coordinate the creation of the Chambo River Basin Council (a pilot project of SENAGUA); and CESA-CAMAREN played an important role in supporting the creation of the national irrigation plan of MAGAP. Yet the most important success of WRF up until now, is the inclusion of several proposals with regards to water resources in the 2008 Constitution. A process which is analysed below.

⁸⁹ Within the CNRH bureaucracy this council was the highest organ with regards to decisions in the administration of water resources. It was composed of high ranking bureaucrats of CNRH that reviewed and decided on water allocations and other decisions in which the resolutions that had been taken by local Water Agencies were appealed/opposed.

⁹⁰ In Ecuador the governors of the provinces are the direct representatives of the president of the nation within the confines of the province. This position is a direct appointment from the presidential office. Governors operate independently from the autonomous decentralized governments (GADs).

6.3.1 A changing political landscape

Rafael Correa, who promised to reverse the neo-liberal model, won the presidential elections in late 2006 with the political party Alianza País. This political party promised to ‘build a new fatherland (patria)’ through a renewed, clearer, stronger State involvement in the country’s development (de la Torre and Conaghan 2009). Already during the election campaign Rafael Correa had taken up water management and the irrigation sector as one of its important campaign issues. In Cotopaxi, the presidential candidates were invited by FEDURICC to present their campaign proposals with regards to the irrigation and water sector. One of the campaign promises of Rafael Correa was that of ‘sowing the countryside with irrigation systems’. To fulfil this promise after his election, on October 31st 2007, INAR was created within MAGAP, through presidential decree No. 695. INAR was created to:

guide the planned development of irrigated agriculture, in potentially irrigable areas and promote the expansion of the irrigated area in the country, especially for the small and medium farmers; and take care of the proper administration of hydraulic infrastructure and the renewable natural resources... (Decreto Ejecutivo 695, 2007; p. 1).

A couple of months later, on May 15th 2008, through Presidential Decree No. 1088, CNRH was abolished and replaced by SENAGUA, that was to take a much more central role in water management than its predecessor (see figure 4). Although it falls out of the scope of this research to investigate what the precise determinants of the creation of these two institutions were, it is interesting to note that similar proposals for the creation of these institutes had been pushed forward by WRF before and after the elections. Therefore some of the members of WRF have come to claim the creation of INAR and of SENAGUA as a success of the constant pressure of this platform.

6.3.2 Drafting the 2008 Constitution

Shortly after its possession of power, on April 15th 2007, the government of Rafael Correa called out for a popular consultation (referendum) on whether or not a new constitution should be drafted for Ecuador. With an almost 82% yes, the population voted for a process to draft a new constitution. The new constitution would be drafted by a democratically chosen Constituent Assembly for which new elections were called out (Becker 2011). The Constituent Assembly had the mandate to elaborate a new legal, political and institutional framework for Ecuador.

The campaign of Alianza País was led by Alberto Acosta,⁹¹ and won 80 of the 130 seats of the Constituent Assembly in September 2007 (Machado-Puertas 2008). The success of

⁹¹ Alberto Acosta is a socially engaged economist and intellectual that became Correa’s first Energy Minister. He has been engaged in politics since at least 1995 from a leftist departure point. He and has been inspired in marxist thinking and has become a fervent anti-globalist and anti-mining advocate. He was one of the important intellectuals of the ‘revolución ciudadana’ but has, since 2009, become a critical opponent of the authoritarian style with which Rafael Correa is governing. He works as professor at the Latinamerican Faculty of Social Sciences (*Facultad Latinoamericana de Ciencias Sociales, FLACSO*) and

Alianza País can be attributed amongst others to Correa's skilful promotion of popular social reforms prior to the constitutional referendum and election (Petras 2008) and to the inclusion of selected people from other political parties, as well as many from outside of the traditional political arena (Becker 2011). These included several academics, NGO-leaders and social-movement activists (Becker 2011). The fact that the government now consisted of many individuals that came from organized civil society and that had in one way or another fought in the past for more democracy, equity or recognition of diversity and plurality gave many the idea that Ecuador was starting a new period in which democracy would be deepened and expanded. The president's discourses emphasized the role of democracy in decision making and pushed forward the liberal ideology of individual rights. At the same time these discourses absorbed many of the longstanding demands of the social movements which were now incorporated into the system not only through the governmental discourses but more importantly by (some of) the people that represented these ideals. On November 29th 2007, the Constituent Assembly was installed to start its work. According, to Becker (2011) this 'provided a critical juncture for indigenous movements by opening up a historic opportunity to decolonize the country's political structures' (p.48). Arguably it was not only the indigenous movement that got a great opportunity to change the country's political structures, but the whole range of organized civil society groupings.

The president of the Assembly, Alberto Acosta had the conviction that the Constituent Assembly should be a space for participation, not only for citizens to express themselves, but as a space which would gather the different proposals that came from the diversity and plurality of Ecuadorian social sectors. All proposals were to be taken into account, processed and discussed to be -where possible- included into the new constitution. To guide and structure this process a special unit was created as part of the Constituent Assembly; the unit of social participation. This unit responded directly to Alberto Acosta and received and processed all proposals through an electronic documentation system. To get feedback, discussions and inputs for the different themes, this unit also coordinated forums, discussion rounds and debates in which the assembly members and 'all relevant social actors' were brought together.

As a unit we stimulated social control and participation of the grassroots groups to change the role of these social subjects; so that they go beyond only turning in proposals to a phase in which they could really participate in the debates of the Assembly. The idea was to open the processes in the Assembly to a broader social base. (Member of the unit of social participation- June, 2009)

The constituent assembly was divided in ten thematic working groups (*mesas de trabajo*)⁹² which were to draft proposals (in the form of articles) for the new Constitution

ran as candidate in the Ecuadorian Presidential Elections of 2013 for the Plurinational Unity of the Left (*Unidad Plurinacional de las Izquierdas*) which is composed of people that feel that the '*revolución ciudadana*' has taken too much of a turn to the right.

⁹² The ten thematic working groups were: 1) citizens' rights, 2) organization and citizen's participation, 3) institutional structure of the State, 4) territorial ordering and assignment of competencies, 5) natural

within their specific domains. As part of this strategy the working groups defined three phases (Centro Carter 2008). First, they started by identifying the main problems, setting objectives of the themes they had to work out and established a working agenda. The second phase, which took between two to three months, consisted of forums in the whole country to ‘collect and discuss’ proposals from civil society. In the third phase the different proposals were analysed and transformed into articles for the constitution. In this participatory process, that was led by the unit of social participation, between January and June 2008, 1632 proposals were received⁹³ and fifty six forums were held in the whole country with an alleged participation of more than 70,000 attendants (UPS, 2008 #376). Another form in which civil society groups participated was through the establishment of control groups that attended the meetings in which the working groups and the whole Assembly came together to write and later approve the articles. These control groups had the right to take part in the discussions and in some cases even gave council to the members of the Constituent Assembly. This created a strong social control on the working of the different individuals and factions that were part of the Constituent Assembly. Through this process most social movements and grassroots organisations of the country were able to make significant contributions to the text of the new Constitution.

Beside these spaces, also traditional lobbying took place. Although the traditional economic and political interests were also invited to the forums, their participation was low as their interests were defended through individual Assembly members. On their side, social movements and NGO’s, including WRF, also took the chances they had as explained by a representative of the NGO Acción Ecológica:

Before the elections we had already started to lobby with the candidates. We invited them to public forums, to debates [...] and then organized debates with them on the radio [...] we invited all of the key assembly members so that they would publicly pronounce themselves on the theme of water. (June, 2009)

6.3.3 WRF and the Constituent Assembly

Many of the members of WRF were active proponents and supporters of a new Constitutional Assembly. In a new constitution they saw the chance of including new progressive and, in their words, ‘anti-neoliberal’ proposals through dialogue, lobbying and negotiations. WRF strongly believed in a participatory process through which the proposals of organisations and individuals would be taken into account and included in the new constitution. The ways through which WRF members actively engaged in the discussions and negotiations around the water issues that were to be included in the new Constitution were manifold.

resources and biodiversity, 6) work and production, 7) development model, 8) justice and anti-corruption strategies, 9) sovereignty and Latin-American integration, and 10) legislation and control.

⁹³ Of these proposals 58% were turned in by individual citizens while the remaining 42% came from civil society organisations (UPS 2008).

In first instance WRF, just as CONAIE and other groups, had already presented and socialized a lot of proposals for reforming the existing water law since 2004. In the election campaign towards the Constituent Assembly and during the whole process that led to the drafting of the Constitution, the proposals of WRF were formally and informally presented and explained to diverse candidates with the idea of getting them compromised for the inclusion of these principles in the new Constitution. These presentations were also made and given to the president of the Constituent Assembly, Alberto Acosta, who had a strong affinity with natural resources management issues, especially water, and as mentioned above a strong belief in making the new Constitution based on the proposals of 'all the Ecuadorians'.

Second, based on their close contacts, WRF organized two broad national conferences (workshops) to collect and deliberate about the different proposals that were related specifically to water issues, together with the Constituent Assembly. These conferences, which were held in Manabí and Latacunga, were logistically and methodologically coordinated by WRF and a team of the Constituent Assembly. During these events that brought together more than 200 participants each, working groups were made around specific themes. In these groups the proposals, advances and possible articles to be included in the constitution were openly discussed with the attendants.

Third, WRF held its National Assembly in Portoviejo on May 8th and 9th 2008. This was organized near the city of Montecristi where the Constituent Assembly was working. Most members of the Constituent Assembly were invited to the event in which the proposals of WRF were debated and refined. At the end of this WRF National Assembly, a mobilization was organized in Montecristi in order to formally and publicly hand over the proposals of WRF to the president of the Constituent Assembly and to a delegation of about thirty of its members. The mobilization was composed of most of the participants of the WRF National Assembly that were joined by numerous irrigators from the whole country amounting to a total of 2500 people. The proposal that was handed over included a couple of basis guiding principles, article proposals for the new Constitution and a draft proposal for a new water law for Ecuador. During this period WRF also organized a 'breakfast', to which the members of the Constituent Assembly were invited. During this breakfast, WRF presented in detail their studies on the accumulation of water in the hands of a few in Ecuador. This presentation was coupled to the proposal of a transitory article in the Constitution that stipulated the revision of all water allocations in the country in order to work towards a more equitable water distribution, an article that was taken up in the new 2008 Constitution.

Fourth, several direct entries to members of the Constituent Assembly were used and established. The partner of one of the active members of WRF was elected as member of the Constituent Assembly (Beatriz Tola). With her and other members of the Constituent Assembly who identified with the water proposals that were brought forward by civil society organisations concerning the domains of water and irrigation governance, WRF members had a couple of personal meetings to explain their proposals. These same members were also often approached throughout the process to discuss specific water

related issues as they were discussed and later approved in the Constituent Assembly. Another important direct entry point to the Constituent Assembly members were their advisors. Many of them were linked to the network of WRF, came from the NGO sector, and played a key role in the articulation of many of the articles and how these were framed and defended in the plenary discussions.

Fifth, during the whole process of the Constituent Assembly members of WRF constantly followed the developments that were taking place in the two working groups that debated and established the water issues (5 and 7). Initially, all water proposals were to be debated in the working group 5, but, as in this working group a large conservative block halted many of the more progressive water related articles, many of the water related proposals were strategically moved to the working group 7, through the good contacts different members of the Ecuadorian water users movement had with the president of this more progressive working group. These developments were followed by WRF at a distance, but in some instances also members attended the sessions of the working groups 5 and 7. Through contacts with members of the Constituent Assembly, the president of the Assembly as well as with their advisors, constant pressure was executed for the inclusion of the demands that had been brought forward by WRF. As mentioned by one of the assembly members:

WRF [and others] where there daily insisting in a very specific manner about the issues and articles related to water. I think this is a fundamental element. It enabled to importantly complement the articles on water in the Constitution. (June 2009)

The draft constitution that was presented to the new president of the Constituent Assembly, Fernando Cordero, in July 2008, contained many progressive articles that were related to water resources. The most important proposals that had been presented by WRF (and some of these proposals were much more broadly shared within the Ecuadorian water users movement) were included in the constitution. These included the human right to water, water as national strategic heritage of public use, exclusivity of public and community organisations to manage water resources (no private water providers), establishment of water allocation priorities, the establishment of a single national water authority, social participation in decision making and the redistribution of water resources based on principles of social equity (see table 5). For example, Article 318 starts as follows: *Water is national strategic heritage of public use... it constitutes a vital element for nature and for the existence of humans. All forms of water privatization are prohibited.*

The final approval of the constitution through a referendum in September 2008 was greatly supported by most social groups and many WRF members. Interjuntas-Chimborazo for instance supported the launch of the National Water Plan a few days before the referendum. It mobilized hundreds of its constituent members to Riobamba, where the event was held and hosted by both state institutions and Interjuntas-Chimborazo. During this event Rafael Correa, together with the Secretary of SENAGUA, formally launched the plan and used the platform to campaign for the approval of the

Constitution. In the space that Carlos Oleas was given to talk he insisted that people approve of this new and progressive constitution.

Table 5 Main principles that were incorporated in the 2008 Constitution (own elaboration)

Principle	Articles
Water as a human right	12 and 66
Water as strategic national heritage of public use	318
Public and community based water management	318
Establishment of allocation priorities: 1) human consumption, 2) irrigation for national food sovereignty, 3) ecological flows, 4) productive uses...	318
Social participation in decision making	85, 95, 96
Drafting of a new water law for Ecuador	Temporary disposition 1
Revision of private domestic water supply companies	Temporary disposition 26
Redistribution of water resources	Temporary disposition 27

The efforts of WRF were important for the definition of some articles and principles of the new constitution, but these were only a small part of the larger lobby of very diverse organisations that form the Ecuadorian water users movement. A large number of NGOs and grassroots organisations, as well as the indigenous movement, made water one of their key demands. For instance the Urban Forum fought for a prohibition of water cuts on public schools and hospitals; organisations from Guayaquil demanded that all water debts for domestic water supply of the poor be abolished; farmer unions fought for a more just distribution of irrigation water. The indigenous movement put forward most of its historic demands that had already been presented for years in their water law proposal. As put by Alberto Acosta:

We had a high participation and mobilization of society. Their presence and their contributions were substantial. I don't want to minimize the work of the colleagues of the Assembly, but I think that the contributions of the committed civil society groups that have been engaged in the defence of water for years, enabled us to consolidate a very solid position and even the editing of the constitutional texts. (March, 2011)

Most of the proposals from civil society coincided on the basic principles such as the human right to water, the non-private character of water, participation, public and communitarian water management, and the recognition of customary water rights systems

in community managed irrigation⁹⁴. Amongst the different groups that struggled for the inclusion of their demands in the Constitution and later the water law, as García (2010) puts it:

... there are many more consensus and complementarities than differences. The paradox is that different organisations, platforms or institutions with very similar proposals have not been able to find consensus and that each one arrived to the Assembly through their own paths. (p. 174)

These included the indigenous movement which, although allegedly side-lined in most discussions of the constituent assembly (Petras 2008), framed the gains of the constitution “as the result of long struggles of diverse social movements [... stressing that]...the new constitution embodied very important social, cultural, political, economic, and environmental advances, including plurinationality, interculturality, collective rights, rights of nature [...] water as a human right...” (Becker 2011p.60). The confluence of all these proposals can be seen as the result of the increased global, national and local agendas of civil society participation in decision making and the centrality that water has gotten in a plurality of social spaces to which WRF, CAMAREN and its capacity building efforts have importantly contributed.

6.4 Conclusions: The role of professionals in social movements

This chapter shows how WRF has developed as a nationally recognized policy advocacy multi-stakeholder platform that has gained political space in the Ecuadorian water resources management arena. WRF initially formed on the basis of NGOs, their networks and activities. These networks have slowly incorporated an increasing number of peasant and indigenous water user associations and federations through capacity building activities, participatory workshops, the meetings of the national platform (and its provincial counterparts) and large events such as the WRF National Assembly. WRF now links institutions and individuals that are active at a multiplicity of scales to deliberate and discuss water policies and politics with the aim of creating policy proposals. In this process, a stock of social capital is created amongst a very broad range of actors. This brings with it the possibility for many socially based actors to exert political agency through these networks. As such, WRF has given voice to concerns of many peasant and indigenous water use collectives, and has become a venue through which these develop political agency at multiple scales.

A very important element of WRF, and its successes, has been a small group of committed professionals that have found funding for its activities, created of a broad multi-stakeholder network, and found resonance for their proposals and activities in the international and Ecuadorian water and development sector. Through their networks of trust, with donors, NGOs and water users, they have created longstanding and productive

⁹⁴ Despite these many changes to the constitution, several legacies from the past are still in place. For instance the state normative frameworks for state managed irrigation systems (chapter 4) have not been changed, and many of the bureaucratic procedures and rules with regards to water allocation and irrigation management have been kept in place.

relations. It is also this same group, that articulates and frames most of the proposals that are elicited from within this space. This has been a reason why rather than from numbers, and the capacity to mobilize contentious actions such as Interjuntas-Chimborazo (see previous chapter) and the Ecuadorian indigenous movement, its political agency comes from the quality of its proposals and networks. This grounds a more tempered, less confrontational and, I would say, soft strategy towards the state. This soft path has a) sought collaboration with state agencies; b) pressed for change through signalling, proposing, and deliberating within the margins of 'the legal' possibilities; and c) linking and pressing key figures within the state through personal contacts.⁹⁵ The proposals that have come forth from WRF can be framed as forming part of a larger search towards rural development, more democracy, transparency, accountability and empowerment of peasant and indigenous water users in the water governance domain.

Following the definition of Snow, Soule and Kriesi (2004), WRF -as a policy advocacy multi-stakeholder national platform- has established itself as an interest group which is embedded in a political arena. In it, WRF has come to be regarded as a legitimate actor that pursues its interests through the use of institutionalized means such as letters, proposals and discussions with the state. The professional involvement for bringing about social change has a different approach than grassroots organisations. Much of their strategies build on the stock of multi-scalar institutional social capital that has been developed over the years. This enables them to build on networks of trust to articulate proposals, do research, lobby and find funding for their activities. Professionals undertake and finance these activities as part of their job.

Not only has WRF developed considerable political agency as a multi-stakeholder platform, it has also played an important role in the empowerment of water user based organisations. As one of the water users participants of WRF stated:

*We were a community organization trapped within ourselves, like a snail in its shell; we had not known, nor participated in other problems that exist in the province and in other sectors. I say that now [through WRF] we know more and have another vision...*⁹⁶

By raising the level of politically engaged water users in Ecuador, WRF and CAMAREN have importantly contributed to the development of the Ecuadorian water users movement, and in doing so, have become a part of it. Finally, international development cooperation networks have been important as they financially and sometimes ideologically facilitated the development of WRF. By financing its activities through CAMAREN and member NGOs, international development cooperation has enabled the development of the broad multi-scalar and multi-actor network that exists today. As many

⁹⁵ As a policy advocacy network WRF is well positioned in the offices of CAMAREN in Quito (which are at a five minutes' walk from the national offices of MAGAP and SENAGUA). This facilitates lobbying and networking at the national ministries (when compared to groups and collectives that live in other cities and rural areas in different parts of the country and for which a visit to Quito often implies a full day undertaking).

⁹⁶ Cited in García (2009); p. 22 of the second chapter of this unpublished study.

of these agencies are slowly reducing their involvement in Ecuador, it remains to be seen if and how WRF and CAMAREN will recreate themselves in the future.



Chapter 7: Conclusions

This mobilization organized by CONAIE in the city of Latacunga, capital city of the province of Cotopaxi on February 14th 2008, is one of the classic images of social movements. Yet as this thesis has shown, most of the movements' activities are not that spectacular. Behind a mobilization like this one, there are movement organisations and leaders at different scales. These enable and orchestrate, at specific moments, a mobilization; yet most of the time their strategies for maintaining the movement and advancing its demands greatly build on the creation and maintenance of scaled organisations through leaders, the development of inward and outward looking social capital and the recreation of scale and scalar politics. In these conclusions I further elaborate and reflect on these issues pulling out important elements that the Ecuadorian water users movement brings to the fore.

7.1 Introduction

Histories do not have an end, but dissertations do. As the processes and people described and analysed in the foregoing chapters keep on evolving and transforming, in these conclusions I aspire to pull some elements out of the described histories which are of significance for collective efforts for social change, the study of peasant irrigators' struggles and their importance for water governance. I will do so based on the main research question of this thesis: How have peasant and indigenous communities developed multi-scalar political agency in water governance to gain and maintain their water access and related rights in the Ecuadorian Highlands, since the 1980s? In a nutshell the answer to this question is that peasant and indigenous communities have developed political agency in water governance through scalar politics and the (re)creation of user based scaled organisations at irrigation system, provincial and national levels. These scales were created based on the transformation of social capital around water, and have brought about a significant increase in the participation of peasant and indigenous water users in Ecuadorian water governance in the last thirty years. The re-scaling of the state in the 1990s, the organizational and technical support of NGOs that was facilitated by international funding, and the commitment of water users' leaders and NGO-professionals were important factors that enabled the coproduction of these user based scales which now form the Ecuadorian water users movement.

In Ecuador, the decentralization policies and structural reforms of the 1990s re-scaled the state, opening space for the involvement of NGOs, water user associations and the private sector in the provision of irrigation services. In state managed irrigation systems, water user associations were created to take over management responsibilities from the state. These developed considerable autonomy and authority at the local level, based on the transformation of social capital. Peasant and indigenous users got actively engaged in these water user associations, and, with the support of NGOs, sought new strategies to overcome their scalar constraints to agency through scalar politics and the consolidation of federations, policy advocacy multi-stakeholder platforms and networks.

The cases analysed in the chapters of this thesis show that increased levels of peasant water users' participation in water governance have brought about important successes in establishing more transparency and democracy in irrigation system management and the design and implementation of water related laws, policies and programs. In this way, they foster and sometimes force their own involvement in decision making, while at the same time pushing for the development of new political spaces for user participation. As such, organized water users have (and are) challenging and transforming existing water governance structures and power relations in Ecuador.

In the remainder of this concluding chapter, I first present the implications of the neoliberally inspired water reforms that rescaled the state involvement in Ecuadorian water governance in the 1990s to early 2000s, and the new rescaling of the state within the *revolución ciudadana* since 2007 (section 7.2). In section 7.3, I explain how, in this new context, the Ecuadorian water users movement emerged, and has recreated itself, based on differently scaled user based organisations and platforms that are bound together

through social capital. In this same section (7.3.1), I reflect on the important, yet not always uncontested, role of NGOs and professionals in the coproduction of these movement organisations. In section 7.3.2, the role of leaders in their recreation is analysed. After this, I reflect on the implications of this thesis on the concepts of scale (section 7.4.1), social capital (section 7.4.2) and on the research methodology (section 7.4.3). In section 7.5, some of the implications this research has on the advancement of socially just water governance are explained. This chapter closes this thesis with the final conclusions (section 7.6).

7.2 Water reforms and the rescaling of the state domain

The rescaling of Ecuadorian water governance, in the 1990s, brought about important changes in the power relations between different state, non-state and user based actors within and across scales. The rolling back of the national hydrocracy, the overall reduced state budgets (and coupled legal changes), and the increased glocalization of irrigation interventions, opened new opportunities for non-state actors to get directly involved in local water management functions that had until then been controlled by the state. In the midst of economic recession, increased levels of poverty and a retreating state, NGOs, international development organisations and international funding agencies increased their involvement in supporting rural peasant and indigenous communities in the Ecuadorian Highlands. In this context the irrigation sector received much attention as a tool for rural development. The increased power of international lending and funding agencies in the midst of national economic crisis allowed for a displacement of the national hydrocracy from local irrigation management, especially the state managed systems. This came about through important changes in the configuration of the state, and an increased articulation of global-local relations and resource flows. In autonomous community managed irrigation systems, NGOs have a long history of interventions, while the role of the state has always been marginal and limited to the funding of construction works.

Under pressure from the World Bank and the Inter-American Development Bank, INERHI was dismantled and state involvement in irrigation development and management radically changed. These changes took place through the neo-liberally inspired rescaling of state institutions. This brought about a dramatic reduction of state expenditure in the irrigation sector and the bending of international loans and investments directly to more local governments, private companies and NGOs. Several water management related tasks were decentralized from the central to the provincial and municipal governments, and to newly created RDCs. The newly created national CNRH was relegated to manage the administration of water allocations and the implementation of the national laws through 12 Water Agencies. Yet, with a severely reduced budget, these new institutions had little power to carry out their tasks.

These changes opened up political spaces that had been controlled by the national hydrocracy. At the scale of state managed irrigation systems, the central role and control of the state was reduced by legal, institutional and financial changes. The World Bank managed IMT programme (1995-2001) radically curtailed the role of the state in 37

irrigation systems, by turning over all irrigation management tasks to newly established water user associations. In those state irrigation systems that were not turned over, the power of the state was reduced by budgetary constraints and the creation of water user associations for the management of secondary and tertiary irrigation units. The coproduction of the latter was done through internationally funded projects that were carried out by NGOs and private companies (often in collaboration with state agencies). These changes, however, did not imply a total retreat of the state, which maintained the legal and regulatory control in the whole irrigation sector. Through these changes, neoliberalism brought about important changes in how peasant and indigenous communities engaged in water governance to defend their demands as is analysed in the next section.

With the advent of the government of the *revolución ciudadana*, the legal and institutional set-up of the state was once more rescaled through the creation of SENAGUA and INAR, and the proclamation of the 2008 Constitution and the drafting of a new water law (see figure 4). Through these changes the state has tried to get a stronger and more central role in the water and irrigation sector. Nonetheless, the state is now confronted, and has to work with, a well-organized and critical water users movement that fiercely defends its water rights, autonomy and voice at different scales.

7.3 The rise of a movement through scalar politics

This research shows that the consolidation of autonomously managed irrigation systems - as spaces with a social, spatial and resource (water) base- are the cornerstone for the development of water centred grassroots based scales. As chapter 4 shows, many NGOs supported peasant and indigenous communities that were already organized and engaged in finding support for the construction of their irrigation systems. For the consolidation of irrigation systems at supra-community level, processes of coproduction between local actors and NGOs and/or state agencies stand central.⁹⁷ Through these processes, the construction of water user organisations, irrigation infrastructure, normative frameworks,⁹⁸ and organizational and technical irrigation management skills developed locally in a specific legal and institutional context. Once established, water user associations became important local scales that have been continuously restructured through both internal dynamics and new processes of external interventions. Peasant and indigenous communities have engaged in internal power dynamics in their Sectoral Committees, Modular Committees and Water User Associations to reconfigure the organizations, their water rights and irrigation infrastructure. Their engagement is based on the normative frameworks that stipulate democratic decision making and competitive elections for positions of representation in their water user associations. The struggles that

⁹⁷ Many small community irrigation systems have been developed and recreated autonomously.

⁹⁸ Many of these normative frameworks are based on the state guidelines and were implemented during IMT, or by NGOs that intervened in the organization of water user associations in state irrigation systems. Only very few supra-community systems have developed their normative frameworks based on existing community structures and rights systems, as in the Guanguilquí-Porotog irrigation system. Nevertheless normative frameworks are dynamic and have been adapted by water user associations within the room to manoeuvre these have.

have brought about these changes are not *per se* about scale, rather, its (re)creation or modification, is the medium through which demands and struggles are locally materialized.

To develop political agency in broader confines such as a province or the nation, water user associations engaged in the coproduction of user based federations. The (re)creation of these, is first and foremost a strategy for water users to defend claims and halt changes that go beyond the reach of the irrigation systems. For the defence of these broader claims, the articulation of the different embedded levels of users based organizations is quintessential, especially when these are paired to popular mobilizations and protests. As shown in chapter 5, Interjuntas-Chimborazo was coproduced by water user associations that were logistically, financially and institutionally supported by SNV and other institutions in the creation of a provincial water user based network and its related social capital. Once established, the leaders of this federation have played a key role in its recreation in three important ways: ‘downwards’ to the constituent water user associations of the province of Chimborazo; ‘sideways’ towards the provincial government, the regional offices of the national ministries, provincially operating NGOs and other user federations, and ‘upwards’ to national ministries, the national government, national policy advocacy platforms, and globally to funders and project implementers. This multi-scaled recreation hinged on a) the provision of services to the water users through the Office of Legal Advice and the brokerage between member organisations and project funders and implementers, and b) the defence of the water rights and interests of the water users of the province of Chimborazo.

Nationally, the creation of WRF, as a policy advocacy multi-stakeholder platform that brings together representatives of peasant and indigenous water users with a multiplicity of differently scaled actors, has formed an important pillar for up-scaling the users’ struggles. WRF, was created through the consolidation of networks that had been developed by CAMAREN (and affiliated NGOs) through years of engagement in rural development projects. Since its establishment the platform has been recreated through capacity building projects, the organization of workshops, seminars and exchanges, conferences, the presentation of policy proposals and lobbying. Most of these activities and the recreation of this platform are dependent on the material and discursive recreation of the national scale of this platform. Its main activities have been financed by international agencies. With these funds, and through collaboration with a multiplicity of state and non-state agencies, the costs of personnel, publications, offices, events and travel have been covered. As international donors are slowly retreating from Ecuador, the challenge for WRF lies in maintaining and finding new allies and funding sources through which it can recreate itself.

These three levels (local, provincial and national) of water users’ based organisations (see table 6), have become mutually constitutive elements of the Ecuadorian water users movement. Through it, the studied organisations have secured the reproduction of irrigation systems and the advancement of user based proposals such as the non-private character of water, the human right to water, the recognition of legal pluralism and local autonomy in water governance, transparency in the allocation of water and many more.

Although many of the historic anti-neoliberal demands of the movement have been met favourably by the *revolución ciudadana*, new threats and issues have arisen. Despite attempts of the government of Rafael Correa to silence and delegitimize some of the movement organisations and their national and international allies, peasant and indigenous water users have kept engaged in counter-hegemonic projects by interlinking user based organizations, NGOs and state actors; and engaging in scalar politics. How the national and international changing context will affect the Ecuadorian water users movement in the future is unclear. What is clear, is that at local level autonomous water user associations have come to stay; and with their permanence also the basic building blocks of a water centred movement.

Table 6 Scales of water centred social movements organisations in Ecuador (own elaboration)

<i>Organization</i>	<i>Scale</i>	<i>Main objective</i>
Water users associations	Irrigation system	Ensure water delivery to its users through the technical and social sustainability of the irrigation system.
Water users' federations	Provincial, regional and national	Representation and defence of the interests of its constituent member organisations. Many also provide services and work as brokers between state and non-state actors and their constituencies.
Multi-stakeholder platforms and broader networks	Provincial, regional, national and international	Deliberation, exchange and framing of ideas and resources. The development of multi-scalar political agency around shared interests. Formation of a stock of outward looking social capital to enable the formation of socially and politically effective coalitions

7.3.1 NGOs and professionals in the coproduction of movements

The case studies analysed in this thesis show that NGO professionals have played an important role in the coproduction of water user associations, federations and platforms through which peasant and indigenous users have been empowered. Chapter 4 does not analyse the specific role of individual professionals engaged in the coproduction of water user associations. It does, however, show how NGO personnel helped transform local forms of social capital around water with the aim of empowering peasants to defend their water related claims both within their water user organisations and at broader scales. As external support agents, they assisted local stakeholders to bridge across political, territorial, religious and ethnic differences that had impaired collaboration. At the same time they helped set-up and legitimized the normative frameworks that came to govern the affairs within the newly created water user associations (at the different organizational levels). Later, these professionals played an important role in allying with- and linking local organisations to broader networks. Through these, the water users accessed support

for the construction, expansion and modernization of the irrigation systems and the development of broader political agency.

In the coproduction of Interjuntas-Chimborazo, committed professionals of SNV played an important role through methodological and logistical support. This enabled the creation of a provincial water users network with a shared understanding of water problems; the establishment of a clear mission for the federation; and the facilitation of the legal and material conformation of the federation. Once established, Interjuntas-Chimborazo kept on relying on the collaboration with these and other professionals (of NGOs and state agencies) for financing its activities, participating in water and irrigation projects, establishing and maintaining its Office of Legal Advice, and the development of political agency at different scales for the defence of the water rights of the water users of Chimborazo.

The policy advocacy multi-stakeholder platform WRF, slowly developed from an NGO dominated networking platform to a politically recognized mixed platform with a high degree of water users participation. A small team of committed professionals from CAMAREN, and its member NGOs, have ensured the continued coordination and financing of the activities that are carried out as WRF. Through these activities, in which peasant and indigenous water user representatives have been able to voice their demands and frame their claims, WRF has developed considerable political agency at national level. In the process of this development, these committed professionals have themselves become advocates of user based/supported proposals in the water governance domain. In this way, they have indirectly become the representatives of these same groups of people vis-a-vis the state; a broader phenomenon amongst NGOs, which according to Dagnino (2007) comes from the fact that:

the state sees them as representative interlocutors in so far as they have a specific knowledge that comes from their connections (past and present) with certain social sectors [...] Bearers of this specific capacity, many NGOs also come to see themselves as 'representatives of civil society'. (p. 60)

In the case of WRF the nuance is different. As national coordinator and coordinator of WRF, NGO staff have been delegated (or have taken) the responsibility of undertaking policy advocacy activities in name of the multi-stakeholder platform. This does not take away that because of their central position in the platform, these professionals have a strong (and not always uncontested) role in framing the concerns of the grassroots when these are articulated into policy proposals. Furthermore, some professionals have represented this platform for over ten years, and have at times taken decisions that affect the whole platform in small grouplets. Some leaders of user based organisations have found this problematic and accuse NGOs of 'stealing' their discourses or claiming to represent their organisations while 'using' the grassroots organisations to legitimize their own concerns, visions and secure funding for their activities. The pinch partly lies in the fact that many activities of the user based organisations are funded by NGOs which sometimes creates unequal power positions. Moreover, often the leaders of user based organization often lack the time and financial means (either from the grassroots

organisations or from personal funds) to attend meetings and actively engage in the organization of events. Another part of the pinch is that some leaders, although being verbally very proficient in framing, lack skills to develop both policy as well as project and funding proposals; making their alliances with professionals a productive, yet sometimes, uneasy marriage. Therefore, even though the power positions of professionals within WRF are unequal and get problematized at times, they develop in a context of mutual dependence. In this sense NGOs and water user organisations form for each other an important mutual source of productive social capital which has, in the last ten years, advanced a water governance agenda that is based on the demands and interests of the peasant and indigenous water users.

7.3.2 The role of leaders in movement organisations

This thesis shows how leaders and professionals play a central role in the (re)creation of scale and the mobilization of social capital. Through their central position in organisations they are significant in giving form to how water user associations, federations and platforms operate and defend the interests of their constituencies. At irrigation system level, where usually high levels of users engagement exist in decision making, because of the need to collectively manage water flows and infrastructure, the agency of leaders is, in relative terms, the least prominent. This is because many decisions are taken in groups, leadership positions change frequently, and leaders are regularly held accountable in general assemblies. At broader levels the socio-material bonding of water and infrastructure does not exist, the stakes are usually less urgent and the engagement of the constituencies is less prominent in decision making and in holding leaders accountable.

In federations and platforms the role of leaders (be they user based or professionals) is often more central than at irrigation system level. Leaders play a crucial role in framing problems; strategizing; articulating and defending demands; building alliances; envisioning creative solutions to existing problems, and finding funding for their organisations. These skills have often been cultivated through years of experience and enable them to a) engage their constituencies in activities (i.e. meetings, negotiations, protests); b) mobilize inward and outward looking social capital; and c) epistemologically and discursively mobilize ‘broader scales’ in negotiations, confrontations and alliances with state and non-state actors. A task that is challenging, because as the scale of the user based organisations broadens the local specificity of the demands, and often their urgency, gets lost and makes way for broader principles and demands. Therefore leaders usually need two important skills, which are: a) framing of shared problems, concerns and demands which is coupled to, b) being able to politically and culturally perform in very diverse settings and with a multiplicity of different actors.

Nevertheless, leadership positions, be it of users or professionals, are not uncontested. The case studies of Interjuntas-Chimborazo, FEDURICC and WRF show that leaders have a tendency to remain and maintain their position at the top of their organisations for extended periods of time; often without formally being held accountable by their constituencies (no election, no general assemblies of member organisations). In this

process often a small group of board members control and, to varying degrees, determine, in sometimes autocratic manners, the direction, claims and strategies of the federation or platform. This results from a concentration of responsibilities for prolonged periods of time, and the, often coupled, individualization of decision making processes. Furthermore, because of their skills, networks, and commitment to change, many of these leaders are lured into positions in the government and/or co-opted into party politics. This often results in either the movement losing its leader(s), or the leader(s), and therewith sometimes their organizations, losing their political freedom to defend (through popular protest and mobilizations) the interests of the constituency they represent. In this way, their success in moving against the current, brings with it the threat of becoming a part of it.

The paradox is, that these same organisations and movements (and their leaders) are precisely the ones who constantly struggle for more democratic decision making in water governance. One can understand this dichotomy when recognizing that the same leaders, who in small groups head federations and platforms, are often those with the deepest and most selfless commitments to struggle for a more just society. Leaders invest, out of conviction and commitment, their time and resources in the struggles they lead and maintain their positions by culturally, and politically, specific forms of legitimacy vis-a-vis a multiplicity of actors; whereby the constituency they represent is just one of the many. Leaders can therefore often ‘get away’ with a lot within their organisations. Despite these inconsistencies, this thesis suggests that because of their specific skills, leaders are a fundamental part of water centred movement organisations and social movements in general.

7.4 Reflections

7.4.1 On scale

This thesis shows that user based organizational scales importantly matter both epistemologically and materially when water users aim to address issues that affect local, provincial and national water governance. It shows that scale shapes human practices and socio-natural processes such as those of irrigation, water management, and the defence of water rights. This thesis also shows that the structuration of broader organizational scales (federations and multi-stakeholder platforms) enables users to develop political agency and engage in scalar politics. An important contribution of this thesis to the debate of scalar structuration is how, besides working on already existing scales, individuals (leaders and professionals) also play an important role in the engagement of scalar politics.

This study also shows that in the study of grassroots movements the classical conception of nested hierarchies and power does not apply. Although lower local water user associations are socially and spatially nested in higher level federations and national platforms or confederations, they are not dependent and/or shaped by these. In fact, the inverse process is defensible: namely that the power, representativeness and legitimacy of higher level federations and platforms hinges, and is dependent, on the local actors and

how these mobilize and participate in broader scales. In this way the different user based scales that are re-constructed in the process of defending water rights create multi-scalar structures and power relations that are hierarchically structured from ‘the bottom up’. In this sense, for instance, local water user associations directly engage with differently scaled NGOs and state institutions to re-construct their irrigation systems without passing through their broader scaled federations and platforms (although the latter can at times help establish the necessary links).

Another issue which stands out in this thesis, is the fact that user based scales are coproduced through the development of alliances between local actors and differently scaled state and non-state institutions. This brings us back to the fact that scales are relational and that they build-on, and are shaped by a multiplicity of already existing scales. The creation of new scales also brings with it a change in the power relations between different actors. As this thesis shows, the glocalization of irrigation management in Ecuador through the ‘forced’ introduction of neoliberally informed structural reforms, disempowered the national hydrocracy at irrigation system level. This ‘disempowerment’ enabled NGOs and international development organisations to engage with local actors in processes of coproduction through which peasant and indigenous users got ‘empowered’ at irrigation system level and beyond.

7.4.2 On social capital

I used the concept of social capital in this thesis to better understand how through relations of trust and the pursuit of shared objectives, synergies are created amongst individuals within organisations (inward looking social capital) and amongst individuals and organisations outside of the studied user based organisations (outward looking social capital). From this departure, my study was informed above all by the concern of understanding how and why peasant and indigenous irrigation users, their federations and multi-stakeholder platforms ‘worked’ and how these ‘got ahead’ in defending their access to water and related rights. The thesis shows that social capital plays an important role in the processes of scalar structuration ‘from below’. The different cases show how, through processes of organizational coproduction, NGOs and international development organisations have created synergies with local actors and played an important role in supporting the transformation of water centred and peasant based social capital at different scales. Yet it also brings some implications to the fore.

As shown in the case of Guanguilquí-Porotog, closed bonding networks of people who share a common frame of reference (religious, political, ethnic, class, community) sometimes impede the formation of social cohesion beyond the group boundaries. Therefore, to develop supra-community cooperation amongst peasant and indigenous communities a process of social capital transformation takes place. First, bridging relationships among groups that are somehow different have to be created to, in second instance, facilitate bonding along the shared interest of attaining and maintaining access to water. As shown in chapter 4, bridging and bonding can be facilitated by establishing the socio-natural constructs of supra-community irrigation systems. These are composed of a) commonly shared objectives (attaining and ensuring access to water), b) an

organization that establishes the social and natural boundaries, c) the norms of reciprocity that provide the rules of interaction within the given boundaries (water rights framework), and d) hydraulic infrastructure that physically binds communities and water users through water flows. Yet, while collaboration can be brought about in one dimension, sometimes conflicts persist in other dimensions. For instance, when peasant users create alliances with landlords in order to advance their shared interests related to their irrigation systems, this does, however, not imply that existing conflicts between these and other groups cease to exist.

In this sense social capital is not conflict free. It can be mobilized for the achievement of shared goals, the contestation of powers, the creation of temporary coalitions, the exclusion of 'others' and the mobilization of struggles. In this thesis, I focused on how it has helped peasant and indigenous users to forward their claims. Yet, just as social capital has empowered peasants, it has disempowered state bureaucracies and landlords. In this same way social capital amongst political, bureaucratic, social and economic elites can also be effective in maintaining the powerful in power at the cost of peasant and indigenous communities. In this sense the distinction between inward and outward looking social capital is significant. It is an analytical tool that helps establish the boundaries of a group or collective around a specific issue, and the mechanisms that are at play within these boundaries (inward looking social capital), and those that are at play with other actors around the same issue outside of these boundaries (outward looking social capital).

The focus of this study on social capital as a means of collaboration, drew my attention and analysis above all to the achievements of peasant and indigenous based organisations and to the processes and individuals through which this came about. Therefore the internal and external struggles, contradictions and conflicts and the power relations (and enclaves) in these organisations, and their external networks, did not receive much attention -not during fieldwork and not in their conceptualization. The same holds true for the analysis of the relations among NGOs, the state and the movement organisations. In these networks, above all the synergies were explored, but not the nature of power in these relations, not the ways in which these relations served as mechanisms of exclusion. An interesting theoretical challenge lies ahead in the conceptualization of how conflicts and the nature of power relations intertwine with social capital within organisations and networks and how despite, and/or because of these, productive relationships and synergies coexist with power struggles and conflicts.

7.4.3 On research methodology

Research, as any other activity, is a social process that is fraught with personal relations, negotiations and, at times, conflicts in which the researcher stands central. In this sense, the importance of creating bonds of trust and reciprocity with the people and processes studied is paramount, for both the collection of data and the well-being of the researcher. As researcher, one steps into and develops existing networks. Following these opens a lot of doors and establishes a baseline of trust, which is worth gold for a researcher and his or her search for information. Another strategy for the study of insiders' stories is through

action research. I did it by supporting and participating in Interjuntas-Chimborazo and by developing shared activities with them. As I engaged with the leaders of Interjuntas-Chimborazo and the Chambo irrigation system, in solving issues that were for them important, I developed mutual relations of trust and got to know first-hand how these organisations, their leaders and networks work. Knowledge that is not attainable through other means of research.

To start research and the building of relations in new areas and with new people, I found that it is very important to start by being introduced. This leads to mostly insiders' stories which, I would argue, is also one of the strengths of this research. People who are or were closely involved in organisations and networks, are also those who know best the strengths, weaknesses and conflicts as well as the histories and developments of the people and organisations they engage with. My experience is that in a context of trust, these same people usually openly speak of both the bright and the dark sides of their organisations and networks; making a strong case for the study of organisations and networks through insiders' stories.

Research into social processes of organization and struggles 'in the field', is an inherently relational process. Therefore researchers cannot simply disengage and see/claim themselves 'outside' of these relations, as who, how, how often and from which position they speak or observe specific issues, importantly determines which information is gathered. This becomes even more critical when we recognize that through the researcher's engagement the boundaries between researcher and researched often become blurry (see also Edelman 2009). From this departing point, the objectivity of the research lies in its embedding and in the capacity of the 'objects of research' to 'object to what is told about them' (Latour 2000:111 in Boelens 2008a:25). Through these processes, what we usually term 'the research objects' become research 'subjects' who are actively enabled to 'object' to the ideas that are formed about them by the researcher. Through this, the latter undergoes a process through which his position changes from 'outsider' to 'insider'. This happens through continued processes of dialogue, discussions and the joint pursuit of activities through which researchers position themselves as committed actors; while at the same time, challenging existing assumptions with their 'outsiders' insights. Therefore, rather than making claims to a 'neutral' or 'scientifically objective' stance, this asks of the researcher to be objective by enabling his research subjects to 'object to what is told about them' and by explicitly positioning him/herself both epistemologically as well as in terms of his/her political commitment.

7.5 Implications for the advancement of social water justice

This thesis shows the importance that autonomous user based organisations have in the advancement of more democratic, just and transparent water governance. These organisations are for peasant and indigenous water users the only way to defend their rights. Therefore it is imperative that autonomous water user organisations become recognized as important building blocks in the water governance domain.

This pledges for the creation of autonomous (self-governing) water user associations in state managed irrigation systems, and the recognition of already existing autonomous community irrigation management organisations. These do not necessarily have to displace the state from its involvement in the irrigation sector, but they do ask for a different role of the state. For having well-functioning large scale irrigation systems, external investments and technical expertise will continue to be necessary. The state can play an important role in making investments in the construction and modernization of irrigation systems; in providing technical expertise, training water users in the operation and management of their systems and in supporting user based initiatives on the basis of mutual collaboration and learning. In this way synergies can be created between users and the state.

As state agencies often have powerful positions in state managed irrigation systems, NGOs can play an important role in the coproduction of autonomous water user associations that can, when necessary, hold the state accountable. In these processes of coproduction, it is imperative to explicitly work with peasant and indigenous water users and to support these groups and their organisations in the advancement of their water demands. Though this is sometimes challenging, failure to do so can result in the strengthening of the positions of those politically and economically most powerful at the expense of the already marginalized.

To forward the broader claims of water users, up-scaled federations and networks are important. They enable local water users to develop political agency at broader scales. The cases of both Interjuntas-Chimborazo and or WRF suggest that NGOs can play an important role in the creation of these broader organisations. The key to their development is the creation of networks amongst water users at broader scales, through capacity building and the organization of workshops and seminars aimed at the exchange of ideas and experiences. These networks form the basis for the consolidation of these up-scaled organisations that can hold the state institutions accountable at different scales. Although as also shown in this thesis, not everything that is user based is good, transparent and equitable. Giving the marginalized (in the broadest sense) room to fend for their interests, is the only way to create within the user based organisations, and beyond them, mechanisms through which collaboration and a constant contestation of powers can come about from ‘the bottom-up’.

Therefore the hope for having the voices of the water users heard and taken into account, now and in the future, in the state controlled spaces and institutions, lies not in the formal spaces that the governments in turn open for its citizens. Rather, the hope lies in the capacity of the water users to unite through collective action and to close strategic alliances that enable them to develop political agency; to demand that their voices and concerns are heard.

In this context it becomes relevant to go beyond the borders of Ecuador. The comparison of the development, strategies and achievements of water user based multi-scaled organisations in different contexts can bring important insights to the fore on how peasant and indigenous water users become actors in water governance. As private companies and

international businesses have come to play an increasingly important role in the use of water and the delivery of water services, another important line of inquiry is how users can devise strategies to hold both these private companies as well as the state accountable, while jointly working on the longer term development of sustainable, democratic and equitable water governance.

7.6 Conclusions

In Ecuador, through processes of glocalization since at least the early 1980s, the state involvement in water governance was weakened in specific domains, opening space for non-state actors. As this thesis shows, in the Ecuadorian Highlands this led to an increased involvement of NGOs and water users in the irrigation management domain. Based on the coproduction of water user based organisations, federations and multi-stakeholder platforms throughout the 1990s and early 2000s, peasant and indigenous water users have become active participants in the domain of irrigation management and water governance more broadly. At irrigation system level, peasants have challenged the power positions of landlords and the state, and through their participation in decision making over irrigation management, have gained more secure access to irrigation water. By engaging with NGOs and state agencies they have ensured water allocations, investments in the construction, modernization and expansion of their irrigation systems. Even though important successes have been booked at local level and at broader scales since the 1990s, such as amongst others the national recognition of the human right to water, the defence of local autonomy, the transparent implementation of water policies, concrete day-to-day services to peasant water users and many more, organized peasant water users keep on struggling for their rights and demands through their movement organisations; also in the government of the '*revolución ciudadana*'.

This thesis has shown that the contestation of established power positions, through the creation of synergies and alliances is the core of water users' participation in water governance. Therefore, it greatly depends on the capacity of peasant and indigenous users to include themselves by means of contentious actions, popular protests, negotiations and the establishment of personal relationships with those in decision making positions. How peasant users participate in water governance, therefore greatly depends on the existing power relations and the felt need, and capacity, of the water users, their leaders and their broader networks, to engage in actions aimed at changing or defending the status quo.

Therefore, for advancing on more inclusive forms of water governance, the hope lies in the capacity of peasants, smallholders and indigenous water users to create collectives and to find external allies that support and help up-scale their struggles; forcing a democracy in-the-making from below. A democracy that is based on a constant process of negotiation and conflict at multiple scales, and which, at times, is played out through a strategy of open confrontation, at times is played out through a 'soft path', and sometimes through both. Therefore, the recognition and creation of self-governing user based organisations, and the organizational support for the coproduction of up-scaled federations and their networks, is a necessary first step for working towards more equitable and democratic water governance.

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Annex A: List of PhD related publications

Refereed publications

- Warner, J., Wester, P. and Hoogesteger J. (Submitted) Struggling with Scales: Revisiting the Boundaries of River Basin Management. *WIREs Water*.
- Hoogesteger, J. (submitted) Social capital transformation in the Ecuadorian Highlands; a case study of the Pillaro Irrigation System, Tungurahua. *International Journal of the Commons* (special issue ‘Advancing multi-method approaches to institutions for collective action’).
- Boelens, R., Hoogesteger J., Baud, M. (accepted) Water reform governmentality in Ecuador: neoliberalism, centralization, and the restraining of polycentric authority and community rule-making. *Geoforum* (special issue ‘Not quite neoliberal natures’)
- Boelens, R., Hoogesteger, J. and Rodriguez J. (accepted) Commoditizing water territories? The clash between Andean water rights cultures and Payment for Environmental Services policies. *Capitalism, Socialism and Nature*.
- Hoogesteger, J. (accepted) Water user organisations and social capital in the Ecuadorian Highlands. *Human Organization* 72(4).
- Hoogesteger, J. (2013) Trans-forming social capital around water: Water user organisations, water rights and non-governmental organisations in Cangahua, the Ecuadorian Andes. *Society and Natural Resources* 26(1): 60-74.
- Hoogesteger, J. (2012) ‘Democratizing water governance from the grassroots: the development of Interjuntas-Chimborazo in the Ecuadorian Andes.’ *Human Organization*. 71(1): 76-86.

Non-refereed publications

- Hoogesteger J. & P. Urteaga (2013) Introducción: disputas por agua en los países andinos. In *Agua e Inequidad: Discursos, políticas y medios de vida en la región andina*, eds. Hoogesteger J. and P. Urteaga, 19-20. Lima: IEP/Justicia Hídrica.
- Hoogesteger J., R. Manosalvas, M. Sosa-Landeo and A. Verzijl (2013) Nuevas escalas de acción: Organizaciones y seguridad hídrica en los Andes. In *Agua e Inequidad: Discursos, políticas y medios de vida en la región andina*, eds. Hoogesteger J. and P. Urteaga, 21-43. Lima: IEP/Justicia Hídrica.
- Hoogesteger J. (2013) Organización supra-comunal, derechos de agua y acción colectiva en luchas por la seguridad hídrica: el caso de Cangahua en los Andes Ecuatorianos. In *Agua e Inequidad: Discursos, políticas y medios de vida en la región andina*, eds. Hoogesteger J. and P. Urteaga, 95-116. Lima: IEP/Justicia Hídrica.
- Urteaga P. & Hoogesteger J. (2013) Conclusiones. Hacia una gestión sustentable y democrática del agua. In *Agua e Inequidad: Discursos, políticas y medios de*

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Summary

This thesis is about peasant and indigenous struggles for water rights in the Ecuadorian Highlands. It is based on the following main research question: How have peasant and indigenous communities developed multi-scalar political agency in water governance to gain and maintain their water access and related rights in the Ecuadorian Highlands since the 1980s? To answer this question, this thesis analyses the histories and relationships between organized water users, water reforms and non-governmental development organisations (NGOs) active in the Ecuadorian irrigation sector. Through state reforms, and processes of coproduction between NGOs and local peasant and indigenous communities, water user associations were created in many supra-community irrigation systems. Once created, these organisations formed the basis for the development of provincial and national federations and policy advocacy networks and platforms that now form the building blocks of the Ecuadorian water users movement.

The theoretical framework of the thesis elaborates on the concepts of scale and social capital. This framework elaborates on how through social capital transformation and material constructions water user based scales are created and recreated by peasant and indigenous irrigators and their allies. This framework presents how scales are interrelated and how and why they matter for the development of political agency at local, provincial and national levels. This framework builds on the conception that the state, NGOs, leaders and user based organisations, their federations and networks play a decisive role in shaping and recreating scale and political agency, as is explored in the remainder of the thesis.

Chapter three shows how the neoliberally informed water reforms re-scaled and transformed the state involvement in Ecuadorian water governance since the late 1980s. It explains how the state was decentralized and 'rolled-back' through institutional reforms, legal frameworks and an irrigation management transfer programme. This opened space for the involvement of international funders, NGOs and water users to engage in the domain of state managed irrigation systems. This opening was used for the coproduction of water user associations through two different pathways. The first was the controversial Ecuadorian IMT programme that was funded and steered by the World Bank. The second one, were the efforts of NGOs involved in empowering the peasant and indigenous water users to manage their irrigation systems, while also developing political agency at broader spatial scales through federations and platforms. I analyse how the confluence of these developments led to the creation of multi-scalar organisations that, as a movement, demand and defend the water rights of peasant and indigenous communities in the Ecuadorian Highlands. This sets the policy and institutional context within which the coproduction of water user associations (chapter 4), a water user federation (chapter 5) and a policy advocacy multi-stakeholder platform (chapter 6) are analysed.

Chapter four analyses how in Ecuador peasant and indigenous communities organized to gain and later maintain access to irrigation water and investments in infrastructure through the analysis of case studies of the Guanguilqui-Porotog, and Pillaro irrigation systems. In these irrigation systems, new autonomous supra-community water user

associations were coproduced between organized peasant and indigenous communities and supporting NGOs. I describe how these organisations consolidated and argue that the support of external agents was important. In doing so, I explore the processes through which NGOs and peasant and indigenous communities transform social capital in water user associations; and how these enable users to (re)create the local scale of irrigation systems by sustained internal collaboration, negotiations and contestations; as well as through alliances with external actors. This chapter shows how different NGO intervention methodologies and the state legal guidelines greatly affect how and amongst whom social capital is developed.

Chapter five analyses how the Provincial Water Users Organisations' Federation Interjuntas-Chimborazo emerged, developed and sustains itself since the late 1990s as the representative of the interests of the water users of the Province of Chimborazo. Its (re)construction resulted from the active engagement of water user associations in the development of regional political agency. Once established, the leaders of this federation have played a key role in its recreation in three important ways: 'downwards' to the constituent water user associations; 'sideways' towards the provincial government, the regional offices of the national ministries, provincially operating NGOs and other user federations, and 'upwards' to national ministries, the national government, national policy advocacy platforms, and globally to funders and project implementers. Its recreation hinges on a) the provision of services to the water users through the Office of Legal Advice and the brokerage between member organisations and project funders and implementers, and b) the defence of the water rights and interests of the water users of the province of Chimborazo through mobilizations, policy advocacy and the creation of strategic alliances.

Chapter six analyses the policy advocacy multi-stakeholder platform the Water Resources Forum. This platform defends the interests of- and empowers organized water users in national water governance. This chapter shows how this platform developed based on extended NGOs' networks that engaged in collective capacity building programmes. This network gradually expanded to include more and more actors of water user based organisations, state agencies and NGOs. The key to this development has been the organization of dialogues, capacity building programmes, research, workshops and national conferences that bring water related actors together. This chapter brings to the fore the internal dynamics that led to the creation and transformation of this national platform and its achievements in terms of empowering water user collectives and pushing forward policy proposals. It shows that NGO professionals play a central role in the recreation of this platform by organizing events, finding funding for these, and by, based on these activities, articulate, and lobby for, policy proposals.

This thesis shows how, through the coproduction of user based organisations at multiple scales, and networks, peasant and indigenous water users have been able to link with each other as well as to provincial, national and international NGOs, state institutions and funding agencies. Through these links, synergies and alliances are created that enable peasant water users to participate in the decisions that concern their access to water and

broader water rights at local, provincial and national level. These have been crucial for the present-day political agency and achievements of the Ecuadorian water users movement, and the ways in which it participates in a multiplicity of spaces of water governance. Establishing these movement organisations and their networks took long-term processes that got formed, amongst others, through organizational strengthening initiatives, workshops, capacity building programmes, the organization of popular conferences and personal contacts. The struggles of the Ecuadorian water users movement have brought about a more central positioning of the water and irrigation sector in the Ecuadorian political arena. Moreover, they successfully struggled for their local demands, and many of their policy proposals were incorporated in the Ecuadorian 2008 Constitution. These organisations have also established a constant social control on the implementation of the law. These achievements have come through ebbs and flows of activity and involvement of the different movement organisations, and have been shaped through processes of struggle in which coalitions form and dissolve, internal conflicts rise and fade and leaders struggle to keep themselves and their organisations responsive and proactive in the water governance domain.

Resumen *

Ésta tesis es sobre esfuerzos de comunidades y organizaciones campesinas e indígenas por obtener y defender sus derechos de agua en los Andes Ecuatorianos. La tesis se centra en la siguiente pregunta principal de investigación: ¿Cómo han comunidades campesinas e indígenas desarrollado incidencia política a múltiples escalas en la gobernanza del agua para obtener y defender su acceso al agua y derechos relacionados en los Andes Ecuatorianos desde la década de 1980? Para dar respuesta a esta pregunta, esta tesis analiza las historias y relaciones entre organizaciones de usuarios del agua, reformas hídricas y agencias de desarrollo no-gubernamentales (ONGs) en el sector del riego Ecuatoriano. A través de reformas hídricas, y procesos de co-producción entre ONGs y organizaciones indígenas y campesinas, organizaciones de usuarios de riego fueron creadas en sistemas de riego supra-comunales. Estas organizaciones han formado la base para el desarrollo de federaciones de usuarios de riego provinciales y nacionales, así como de redes y plataformas de intercambio. El conjunto de estas diferentes organizaciones es, hoy en día, la base del movimiento ecuatoriano de usuarios del agua.

Para analizar cómo estas organizaciones campesinas e indígenas multi-escala se crearon y desarrollaron, esta tesis usa y desarrolla los conceptos de escalas y capital social. El marco teórico explica cómo, a través de prácticas sociales y construcciones técnicas, capital social y escalas se producen y reproducen. De igual manera muestra como diferentes escalas se interrelacionan y cómo éstas mismas sirven de base para el desarrollo de incidencia política a nivel local, provincial y nacional. En este análisis una serie de elementos juegan un papel importante en el desarrollo de escalas. Éstos son el estado, ONGs, líderes de organizaciones y las organizaciones de usuarios de riego. Este marco teórico forma la base para el análisis de estudios de caso de asociaciones de usuarios de riego a nivel del sistema de riego (Cangahua y Píllaro), una federación provincial de usuarios de riego (Interjuntas-Chimborazo) y una plataforma nacional multi-actores (Foro de los Recursos Hídricos).

El tercer capítulo muestra como las reformas hídricas neoliberales transformaron el involucramiento y rol del estado en la gobernanza del agua y del riego en los Andes Ecuatorianos desde finales de los 1980s. Explica como los roles del estado en la gestión del agua fueron descentralizados y reducidos a través de reformas institucionales, cambios legales y un programa nacional de transferencia de sistemas de riego del estado a los usuarios. Estos cambios abrieron espacio para usuarios de riego, ONGs y organizaciones financieras internacionales de incidir en el ámbito de los sistemas de riego estatales. Esta apertura fue utilizada para la creación de asociaciones de usuarios de riego para la gestión de los sistemas de riego, lo cual se dio por dos trayectorias. La primera fue a través de un debatido programa de transferencia de sistemas de riego que fue financiado por el Banco Mundial. La segunda fue por medio de las intervenciones de ONGs las cuales se centraron en el empoderamiento de campesinos e indígenas para la gestión del riego y el desarrollo de incidencia política a escalas espaciales más amplias a través de federaciones, redes y plataformas. Se muestra cómo estos cambios en la gestión del riego

* Translated from English by author/ Traducido del Inglés por el autor.

llevaron a la creación de organizaciones multi-escalares que, como un movimiento social, exigen y defienden los derechos de agua las comunidades indígenas y campesinas de los Andes Ecuatorianos. Este capítulo establece el marco histórico e institucional en el cual se desarrollaron las asociaciones de usuarios de riego de Cangahua y Pillaro (analizados en el cuarto capítulo); la Federación Provincial de Organizaciones de Usuarios del Agua de Chimborazo (Interjuntas-Chimborazo) la cual se explica en el capítulo cinco; y la plataforma nacional multi-actores el Foro de los Recursos Hídricos, la cual se analiza en el sexto capítulo.

El cuarto capítulo analiza como comunidades campesinas e indígenas se organizaron para acceder, y más tarde defender, agua de riego e inversiones para la construcción de sus sistemas de riego a través de los estudios de caso de los sistemas de riego Guanguilquí-Porotog en Cangahua, provincia de Pichincha, y el sistema de riego Pillaro en Pillaro, provincia de Tungurahua. En estos sistemas de riego, nuevas asociaciones supra-comunitarias de usuarios de riego fueron coproducidas por comunidades locales con el apoyo de ONGs. Muestra cómo la transformación del capital social de las organizaciones comunitarias fue la base para la conformación de las asociaciones de usuarios y la cooperación supracomunitaria. Esta colaboración que se gestiona a través de la asociación de usuarios, se basa en el capital social, y ha permitido a los usuarios operar, mantener y gestionar sus sistemas de riego. Además, las asociaciones han servido como plataformas para crear alianzas con actores externos a través de los cuales han podido ejercer incidencia política a diferentes niveles. Este capítulo también muestra que diferentes estrategias de intervención de ONGs y los marcos legales estatales tienen gran trascendencia sobre cómo y entre quienes se desarrolla capital social.

El quinto capítulo analiza como Interjuntas-Chimborazo se creó, se desarrolló y se recrea, desde los finales de los 1990s, como el representante y defensor de los derechos e intereses de los usuarios de riego de la provincia de Chimborazo. Su (re)creación resultó de la activa participación de asociaciones de usuarios de riego en la federación para desarrollar incidencia política a nivel provincial y nacional. Una vez establecida, los líderes de la federación han jugado un importante papel en tres diferentes maneras: ‘hacia abajo’ a las organizaciones miembros de la federación; ‘hacia los lados’ hacia los gobiernos provinciales, ONGs, el movimiento indígena y otras federaciones provinciales;; y ‘hacia arriba’ a las secretarías y ministerios nacionales, el gobierno nacional, las plataformas de incidencia política nacionales, e internacionalmente a agencias de desarrollo. La recreación de esta federación se basa en a) la provisión de servicios a sus miembros a través la Oficina de Asesoría Legal y la intermediación entre sus miembros y ONGs y entes estatales que implementan proyectos de desarrollo rural, y b) la defensa de los derechos y los intereses de los usuarios de agua de la provincia de Chimborazo a través de movilizaciones, incidencia política y la creación de alianzas estratégicas.

El sexto capítulo analiza el Foro de los Recursos Hídricos. Esta plataforma multi-actores nacional defiende los intereses, y ha apoyado en procesos de empoderamiento, de organizaciones de usuarios del agua a nivel nacional. Este capítulo muestra como esta plataforma se desarrolló en base a una extensa red de ONGs involucradas en procesos

colectivos de programas de capacitación en la gestión del agua y otros recursos naturales. Esta red de ONGs poco a poco se extendió para incluir a más actores de organizaciones de usuarios de riego, agencias estatales y ONGs. La base para este desarrollo ha sido la organización de diálogos, programas de capacitación, investigación, seminarios, talleres y conferencias y asambleas nacionales e internacionales que unen a diferentes actores relacionados al agua. Este capítulo muestra las dinámicas internas que han marcado el desarrollo de este espacio y muestra sus logros en términos del empoderamiento de organizaciones de usuarios campesinos e indígenas de agua y de la incidencia política a nivel nacional. Este análisis muestra que profesionales de ONGs juegan un papel fundamental en la recreación de esta plataforma a través de la organización de eventos, el aseguramiento de fondos para sus actividades y, basado en estas actividades, el desarrollo y cabildeo para el desarrollo de incidencia política.

Esta tesis muestra de que manera, a través de la coproducción de organizaciones de usuarios a múltiples escalas y de redes, usuarios campesinos e indígenas han sido capaces de colaborar a nivel local, provincial, nacional e internacional con otros usuarios, ONGs, entes estatales y agencias internacionales de financiamiento. A través de estos vínculos en redes, sinergias y alianzas se crean y permiten a usuarios campesinos participar en decisiones que afectan su acceso al agua y sus derechos relacionados al agua a nivel local, provincial y nacional. Éstos vínculos han sido de gran importancia para el desarrollo de la incidencia política que hoy en día posee el movimiento de usuarios del agua de Ecuador. El establecimiento de las organizaciones del movimiento y sus redes se dio por procesos de largo aliento que se formaron, entre otros, por procesos de fortalecimiento organizacional, talleres, intercambios, redes personales e institucionales y la movilización de los usuarios. Estos esfuerzos, en los cuales ONGs han jugado un papel importante, han centrado al riego y la gestión del agua en la agenda política nacional y llevaron a la inclusión de muchas de las demandas de los usuarios campesinos e indígenas en la Constitución del Ecuador del 2008 y en las diferentes propuestas y borradores de la nueva Ley de Aguas del Ecuador. Estos logros se han dado a través de sube y bajas de actividades e involucramiento de las diferentes organizaciones del movimiento. Éstas se han creado y desarrollado a través de coaliciones que se crean y se disuelven; conflictos que nacen, se desarrollan y desaparecen; y líderes que luchan por mantener sus posiciones y sus organizaciones. Estos procesos son los que han creado y mantenido al movimiento activo e involucrado en la gestión del agua a diferentes escalas.

Samenvatting*

Dit proefschrift gaat over de strijd om water en waterrechten van kleine boeren en inheemse gemeenschappen in de Ecuadoraanse hooglanden. De volgende onderzoeksvraag staat hierin centraal: hoe hebben gemeenschappen van kleine boeren en de inheemse bevolking in de Ecuadoraanse hooglanden hun politieke macht voor het verkrijgen en behouden van toegang tot water en bijbehorende rechten sinds de jaren 1980 ontwikkeld op verschillende bestuurlijke niveaus? Om deze vraag te beantwoorden heb ik de geschiedenis van - en de relatie tussen - georganiseerde watergebruikers, hervormingen in de watersector en niet-gouvernementele organisaties (NGO's) werkzaam in dit veld geanalyseerd. Als gevolg van, en in reactie op overheidshervormingen en door samenwerkingen tussen NGO's en watergebruikers, werden er in veel irrigatiesystemen watergebruikersorganisaties opgezet, zowel in autonome als in door de overheid beheerde systemen. Deze organisaties vormen de basis voor de ontwikkeling van provinciale en nationale federaties, belangenbehartigingsorganisaties en platforms waaruit de watergebruikersbeweging van Ecuador is ontstaan.

Het theoretische raamwerk van dit proefschrift bouwt op de concepten van schaal en sociaal kapitaal. Het legt uit hoe, door de transformatie van sociaal kapitaal en de bouw van irrigatiesystemen, watergebruikers en hun bondgenoten specifieke schalen creëren. Het raamwerk laat zien hoe verschillende schalen aan elkaar verbonden zijn en waarom deze van belang zijn voor het ontwikkelen van politieke macht op lokaal, regionaal en nationaal niveau. In dit raamwerk worden overheid, NGO's, leiders en watergebruikersorganisaties gezien als belangrijke elementen die bepalend zijn voor de ontwikkeling, dynamiek en macht van de Ecuadoraanse watergebruikersbeweging. Deze verschillende elementen presenteer ik in de empirische hoofdstukken van dit proefschrift.

Hoofdstuk drie laat zien hoe het neoliberalisme waterhervormingen te weeg bracht. Deze hebben de staatsbetrokkenheid in het Ecuadoraanse waterbeheer sinds de jaren 1980 veranderd. De overheid werd gedecentraliseerd en naar de achtergrond gedreven door institutionele hervormingen, wettelijke veranderingen, en een irrigatiebeheer overdrachtsprogramma (IMT). Hierdoor kregen buitenlandse geldschieters, NGO's en watergebruikers meer ruimte om actief te worden in het domein van door de overheid beheerde irrigatiesystemen. Deze ruimte werd gebruikt om watergebruikersorganisaties op te zetten door middel van twee verschillende soorten interventies. De eerste was het omstreden Ecuadoraanse IMT programma dat werd betaald en geleid door de Wereldbank. De tweede waren de programma's van NGO's die de kleine boeren en inheemse gemeenschappen steunden om hun eigen irrigatiesystemen te beheren. Deze interventies hebben ook de creatie van federaties en platforms op verschillende niveaus gestimuleerd met als doel om politieke macht te ontwikkelen. Ik analyseer hoe de samenloop van deze ontwikkelingen leidde tot het ontstaan van organisaties die, als een sociale beweging, de waterrechten van de kleine boeren en inheemse gemeenschappen in de Ecuadoraanse hooglanden op verschillende niveaus opeiste en verdedigde. Binnen deze context presenteer ik in dit proefschrift hoe watergebruikersorganisaties (hoofdstuk

* Translated from English by Sara Mulder/Vertaald uit het Engels door Sara Mulder.

4), een watergebruikersfederatie (hoofdstuk 5), en een belangenbehartigingsplatform (hoofdstuk 6) zijn opgezet en functioneren.

Hoofdstuk vier analyseert, door middel van case studies in de irrigatiesystemen van Guanguilqui-Porotog en Pillaro, hoe kleine boeren en inheemse gemeenschappen zich hebben georganiseerd om toegang tot irrigatiewater te verkrijgen en later te behouden. In deze irrigatiesystemen zetten georganiseerde boeren en inheemse gemeenschappen met behulp van NGO's nieuwe gemeenschapsoverstijgende watergebruikersorganisaties op. Ik beschrijf hoe deze organisaties zijn ontwikkeld en stel dat de ondersteuning van externe partijen hierbij doorslaggevend was. In mijn argumentatie verken ik de processen waarin watergebruikers met steun van NGO's het sociale kapitaal van hun gemeenschappen hebben omgevormd en aangepast aan hun nieuwe watergebruikersorganisaties; en hoe deze de gebruikers in staat stellen om hun irrigatiesystemen te beheren en te onderhouden door middel van interne samenwerking, onderhandelingen en geschillen, maar ook bondgenootschappen met externe partners. Dit hoofdstuk laat zien hoe de methoden van verschillende NGO's en richtlijnen van de overheid hun stempel drukken op hoe en tussen welke partners sociaal kapitaal vorm krijgt.

Hoofdstuk vijf analyseert hoe Interjuntas-Chimborazo, de Provinciale Federatie van Watergebruikersorganisaties van Chimborazo, ontstond, zich ontwikkelde en vandaag de dag opereert als belangenvertegenwoordiger van de watergebruikers van de provincie Chimborazo. Haar oprichting en voortbestaan hangt nauw samen met de actieve betrokkenheid van watergebruikersorganisaties in de behartiging van hun belangen op provinciaal en nationaal niveau. De leiders van deze federatie spelen op drie manieren een sleutelrol in zijn voortbestaan en handelen: 'omlaag' naar de aangesloten watergebruikersorganisaties; 'zijwaarts' naar de provinciale overheid, de regionale kantoren van ministeries, provinciaal opererende NGO's en andere gebruikersfederaties; en naar 'boven' naar ministeries, de nationale overheid, nationale belangenbehartigingsorganisaties; en wereldwijd naar geldschieters en waternetwerken. Zijn voortbestaan is afhankelijk van a) het verschaffen van diensten aan watergebruikers door het advocatenkantoor van de organisatie en de bemiddeling tussen lidorganisaties, projectfinanciers en uitvoerders, en b) de verdediging van waterrechten en belangen van watergebruikers in de provincie Chimborazo en op nationaal niveau door mobilisaties, belangenbehartiging en het sluiten van strategische bondgenootschappen.

Hoofdstuk zes analyseert het multi-actoren platform, het Water Forum (*Foro de los Recursos Hídricos*). Dit platform verdedigt de belangen van watergebruikers en versterkt hun positie in het nationale waterbeheer. Dit hoofdstuk laat zien hoe dit platform is ontstaan uit uitgebreide NGO netwerken die zich bezighielden met trainingen verzorgen en organisatie versterkingsprogramma's. Het netwerk breidde zich sinds 2001 uit doordat er zich steeds meer watergebruikersorganisaties, overheidsinstellingen en NGO's bij aansloten. Het organiseren van dialogen, capaciteitsopbouwprogramma's, organisatie versterkingsprogramma's, onderzoek, workshops en nationale bijeenkomsten was essentieel om iedereen uit de watersector bij elkaar te brengen in dit netwerk. Ik laat de interne dynamiek van dit platform zien en leg uit wat het bereikt heeft zowel in het

versterken van watergebruikerscollectieven en de belangenbehartiging van de watergebruikers door middel van bijvoorbeeld het uitbrengen van wets- en beleidsvoorstellen. Dit hoofdstuk laat zien dat NGO's hier een centrale rol in hebben gespeeld door het organiseren van bijeenkomsten, het vinden van financiering, en het samenstellen van en lobbyen voor beleidsvoorstellen.

Dit proefschrift laat zien hoe door het opzetten en ontwikkelen van watergebruikersorganisaties en netwerken op verschillende niveaus, kleine boeren en inheemse watergebruikers aan elkaar zijn gekoppeld, en koppelingen hebben kunnen maken met provinciale, nationale en internationale NGO's, overheidsinstanties en fondsen. Hierdoor ontstonden er bondgenootschappen en samenwerkingsverbanden die watergebruikers in staat stellen om deel te nemen aan de besluitvorming omtrent hun toegang tot water en waterrechten in bredere zin, op lokaal, provinciaal en nationaal niveau. Dit is van cruciale betekenis geweest voor de huidige politieke macht van de Ecuadoraanse watergebruikersbeweging en de manier waarop zij deelneemt aan de besluitvorming over waterbeheer op verschillende niveaus. De vestiging van de organisaties en netwerken die aan de basis van deze beweging staan is het resultaat van een voortdurend proces dat onder andere gevormd wordt door organisatieversterkingsprogramma's, workshops, trainingen, capaciteitsopbouw-programma's, publieke bijeenkomsten en persoonlijke contacten. De strijd van de Ecuadoraanse watergebruikersbeweging heeft ervoor gezorgd dat de water- en irrigatiesector nu een belangrijke positie bekleden in de Ecuadoraanse politiek. Bovendien hebben zij succesvol gestreden voor hun lokale eisen, en zijn veel van hun voorstellen opgenomen in de Ecuadoraanse grondwet van 2008. Tenslotte hebben deze organisaties nu een constant controlerende rol in de uitvoering van deze wet. Deze resultaten zijn bereikt door activiteiten en betrokkenheid van verschillende organisaties, en zijn gevormd door processen van strijd waarin coalities en interne conflicten zijn ontstaan en opgeheven, en leiders en watergebruikers worstelen om hun organisaties strijdlustig en proactief op te stellen.

Curriculum Vitae

Jaime Dingeman Hoogesteger van Dijk was born in Mexico City on August 27, 1979. He grew up in Mexico City (1979-1990) and San Miguel de Allende, Guanajuato, Mexico (1990-1998), and spent one year of high school (1996-1997) in Prince George, B.C. Canada. In 1998 he studied one semester of architecture at the Universidad Nacional Autónoma de México, in Mexico City. In 1999 he started his studies Tropical Land Use (now International Land and Water Management) at Wageningen University, the Netherlands. During his studies he did minors in Land Degradation and Development, Rural Sociology and Forestry and a major in Irrigation and Water Engineering. The first thesis research he did was in the state of Guanajuato, Mexico, on groundwater management (2003). This research focused on the historical development of groundwater use and its drivers; the institutional and legal responses that emerged to groundwater overdraft; and the practices of both groundwater users and state officials. The second thesis took him to the Zayandeh Rud Basin in central Iran (2004). There he studied river basin management and drought, focusing on the interplay between state responses and that of water users in irrigation systems. He graduated (Ir./MSc) in 2005 with distinction.

After graduation he worked on teaching, research and projects at the Irrigation and Water Engineering Group (now Water Resources Management Group) of Wageningen University until the summer 2008 when he started his PhD. In this period he did research and project work in Guanajuato, Mexico on groundwater management with the user based groundwater management councils (COTAS). He also worked within the Water Law and Indigenous Rights (WALIR), Concertación and NUFFIC funded capacity building and exchange programs in Peru, Ecuador and Bolivia. Beside these activities, he taught several MSc and BSc courses and wrote the funding proposal which led to the NWO-WOTRO funded research programme 'Struggling for water security: Social mobilization for the defence of water rights in Peru and Ecuador (SWAS)'. In July 2008 he started his PhD and coordinated the SWAS programme. He kept engaged in teaching, project work activities and organized a couple of seminars during his PhD.

He has (co)published an edited book, several peer-reviewed articles, book chapters, conference papers and popular publications, which include a documentary on Interjuntas-Chimborazo, radio reports and photo exhibitions. He has reviewed manuscripts for *Human Organization*, *Water Alternatives*, *Society & Natural Resources*, *Agricultural Water Management* and *Water International*, and (co)supervised 13 graduate (MSc thesis), 13 undergraduate (BSc thesis) and 10 professional internships between 2006-2012.

He is fluent in Dutch, English and Spanish and has a working knowledge of German and Portuguese. Jaime is married and has two children.

WASS Training and supervision plan

Jaime Dingeman Hoogesteger van Dijk
Wageningen School of Social Sciences (WASS)
Completed Training and Supervision Plan



Wageningen School
of Social Sciences

Name of the activity	Department/ Institute	Year	ECTS (1=28 hrs)
Project related competences			
CERES Orientation programme 2008	CERES	2008	5.5
Presentation Tutorials			
IWE-WUR Seminar Social Mobilization	IWE	2008	4.0
2009 PhD Winter School on Earth System Governance: The Challenge of Adaptive Governance	SENSE	2009	3.0
Social Movements in the South: How to study and write about them.	WASS	2011	1.5
Visiting scholar at IRES, University of British Columbia, Canada	IREC	2011	6.0
General research related competences			
Tools of Narrative Inquiry	WGS	2009	1.4
'Accessing water through supra-community articulation in the Ecuadorian Andes'	CERES Summerschool, ISS	2010	3.0
Democratizing water governance from the grassroots: the development of Interjuntas-Chimborazo in the Ecuadorian Andes'	WASS PhD-day	2010	1.0
'Thickening society and the State: decentralization and autonomy in Ecuadorian water management'	CERES Summerschool, Utrecht University	2011	3.0
'Water Security from a Multidisciplinary Local perspective: Understanding water struggles in the Ecuadorian and Peruvian Andes'	WASS PhD-day	2011	1.0
'Between politics, consultation rounds, authoritarianism and social movements: Disputes over the new water law in Ecuador'	PoliticoGenetmaal, UVA	2011	1.0
'Thickening the Organizational Maze: Decentralization and the Consolidation of Societal Stakeholders in Ecuadorian Water Management'	APSA, Seattle	2011	1.0
Career related competences			
PhD Competence Assessment	WGS	2009	0.3
Interpersonal communication for PhD students	WGS	2009	0.6
Career perspectives	WGS	2010	1.6
Voice Matters – Voice and Presentation Skills Training	WGS	2012	0.4
Organization Masterclass NALACS	NALACS	2011	1.0
Coordination capacity building NUFFIC programme Ecuador	IWE	2008	2.0
(Co) supervision of 12 MSc Thesis	IWE/CEDLA	2012	4.0
TOTAL			41.3

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