

**POWER, PEOPLE, PLACES AND SPACES: EXAMINING THE POLITICS OF
PARTICIPATION ACROSS SCALES OF RESOURCE GOVERNANCE**

by

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Abstract

Identifying suitable approaches for designing and implementing participatory processes in ways that enhance the delivery of outcomes, including community access to forest and water benefits, remains a key societal challenge. Central to this challenge are complexities related to structuring the participation of diverse actors operating at different governance scales and with diverse objectives. Prior studies have recognized that local communities and Indigenous Peoples are most affected by policy actions, and thus should meaningfully participate in policy debates at the regional and national and international scales. Yet participatory processes across governance scales tend to favor the participation of powerful actors including government representatives while limiting the participation of local communities and Indigenous Peoples. This study examines the scalar and participatory aspect of resource governance through two study contexts – the World Conservation Congress 2016 and the Reciprocal Water Agreement in Bolivia. Using qualitative data collection methods including semi-structured interviews, participant observation and document analysis, I examined how longstanding and emerging institutions and institutional arrangements that seek to integrate the participation of diverse actors at the regional and national and international scales, shape local participation and access to resources benefits. I developed a typology of participation to consider the linkages between gradations of participation based on different levels of power and spaces where the participation is likely to occur. Across the two study contexts, findings suggest that both longstanding and emerging institutions and institutional arrangements have the tendency to reinforce prevailing power relations. This in turn results in unequal participation among actors. Additionally, findings highlight the implications of existing gaps in governance on perceptions among actors about participation in resource decision-making. Overall, this study makes visible how prevailing and uneven structures of

power across governance scales shape dominant visions for resource governance and the nature of participation of local communities and Indigenous Peoples in resource decision-making. Finally, this study identifies key recommendations for ensuring that adequate participation of local actors are addressed in resource governance. These include participatory design of spaces with local or Indigenous leadership, coordinated policy actions across sectors with overlapping responsibilities and objectives and locally-sourced and managed financial support.

Lay Summary

A persisting societal challenge is how to ensure that local communities and Indigenous Peoples have adequate access to the benefits associated with forests and water. Previous studies have linked this challenge to insufficient participation of local communities and Indigenous Peoples in decision-making about these resources. Decision-making processes tend to favor the participation of more powerful actors including government representatives with limited opportunities to include interests of local communities and Indigenous Peoples in policy. This study examines participation of different actors at the regional and national and international scales to understand how institutions and their platforms or processes influence the participation of actors, especially community and Indigenous actors at these different scales. The key contribution of this investigation is identifying ways by which these institutions and their platforms or processes can better promote meaningful participation of local communities and Indigenous Peoples in resource decision-making.

Preface

Throughout the process of writing this dissertation, I received guidance and support from my supervisor, Dr. Shannon Hagerman and my committee members, Dr. Janette Bulkan and Dr. Rob Kozak. Under their supervision, I developed the research design and conducted the data collection, data analyses, and writing of this dissertation. Following a collaborative research approach and design adopted for the study component in Bolivia, I worked closely with a local host to jointly decide on the research approach including relevant study sites and procedure for data collection. In Bolivia, the data collection was supported by my field assistant Ms. Inés Martín del Real. Similarly, a collaborative event ethnography approach was adopted at the WCC, which included working with a team of researchers. This approach facilitated data collection across a greater range of events, thus significantly increasing the corpus of empirical data collected and available for analysis and interpretation.

This study obtained the approval of the UBC Behavioral Research Ethics Board. For the study components at the WCC and in Bolivia, UBC BREB numbers H15-03338 and H16-02677 apply respectively. Three journal publications resulted from this dissertation. These include:

A version of Chapter 2 that was published as: [Adeyeye Y.], Hagerman S., and Pelai R. “*Seeking procedural equity in global environmental governance: Indigenous participation and knowledge politics in forest and landscape restoration debates at the 2016 World Conservation Congress*” *Forest Policy & Economics* (2019). [My contribution: 75%] I conducted the fieldwork (with support from PR), analysis and wrote the manuscript. HS provided advice related to research design, analytical approach and interpretation of results.

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List of Abbreviations

CEE – Collaborative Event Ethnography

FAO - The Food and Agricultural Organization of the United Nations

FLR – Forest and Landscape Restoration

FNB - Fundación Natura Bolivia

INGO - International Non-governmental Organization

IUCN - The International Union for Conservation of Nature

IUFRO - The International Union of Forest Research Organization

JMAM - The Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests and Mother Earth

LuW - Land Use-Water nexus

MLG – Multilevel Governance

NGO - Non-governmental Organization

PES – Payment for Ecosystem Service

RWA - Reciprocal Water Agreement

WCC – World Conservation Congress

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Finally, sincere thanks to my family and friends – in Nigeria, Africa, Europe, Canada and the world, the list is long and endless. In different ways, you encourage me. Eseun pupo!

Dedication

To Samson Olajire Adeyeye.

I remember all the colorful ways you would use to say, “It is possible. If by chance someone could do it, that person can be you”.

Rest on, Dad.

Chapter 1: **Introduction**

1.1 The challenges of local participation in resource governance

Identifying suitable approaches for designing and implementing participatory processes in ways that enhance the delivery of outcomes including community access to forest and water benefits remains a key societal challenge (Arts, 2014). At the core of this challenge are difficulties with ensuring participation of actors that operate at different governance scales and with diverse objectives (Pomeranz et al., 2014). Prior studies have shown that ensuring participation of multiple actors in resource governance, especially local actors that are often the most affected by policy actions, is core to the achievement of enhanced community access to resources (Osborne et al., 2014). This is because sufficient local participation¹ in resource governance has been linked to improved perceptions about outcomes of collaborative initiatives (e.g. Berkes 2009; Castro & Nfielsen, 2001) and good governance by way of improving the quality of policies and outcomes (e.g. Kasperson, 2006; Secco et al, 2014). An increasing trend in resource governance is the promotion of approaches including co-governance (Kim, 2015) as a way to facilitate interactions among actors and to encourage local participation.

A co-governance approach recognizes the need to negotiate complex interactions of interests among multiple actors and across governance scales (Carlsson & Berkes, 2005; Kim, 2015). Co-

¹ I use *local participation* as a broad term to refer to the involvement of local people or groups in resource governance (Méndez-López et al., 2014). To ensure usage of terms that fit contexts in the different cases, I used Indigenous Participation in Chapter 2 and community participation in Chapter 3 and 4.

governance refers to a range of institutional arrangements that is characterized by different degrees of power sharing for joint decision-making among actors operating at different scales of resource governance (Berkes, 2009). In this thesis, institutions refer to systems of established and embedded social rules (including formal and informal rules and norms) that shape human interactions. Institutions also include structures that have criteria to establish their boundaries (e.g. objectives sought) and identify concerned actors including employees in some agencies and members/non-members in organizations that operate as networks or associations (Hodgson 2006). As such, institutional arrangements are defined here as the systems and processes that institutions put in place to plan and manage governance activities (Thompson 2018). Institutional arrangements include (UNDP 2017): i) platforms and processes for arranging and undertaking policy works and ii) network of entities and actors involved in the planning and execution of activities to attain joint objectives.

Co-governance approaches have been pursued across a number of institutional arrangements in the context of natural resource governance, including joint forest management (Bhattacharya Prodyut et al., 2010), water-co-governance models (Grover & Krantzberg, 2013) and food safety (Wu et al., 2018). Across these contexts, co-governance approaches seek to empower marginalized actors such as local communities in shaping policy actions and to reduce conflicts by building trust among actors (Nowlan & Bakker, 2010). In addition, co-governance can potentially address core tensions related to authority and power sharing (Simms et al., 2016). In the context of natural resource governance, co-governance is often intertwined with decentralization efforts (Ostrom & Agrawal, 2001). The expectation among policy makers is that such linkages of co-governance with decentralization efforts will lead to institutional

arrangements that have the potential to facilitate bottom-up approaches so as to counterbalance tendencies for powerful actors to dominate decision-making (Gupta & Pahl-Wostl, 2013).

Decentralization efforts in natural resource governance seek to encourage cession of decision-making power from the states to local level actors and institutions (J. Ribot, 2004). Globally, decentralization has been widely promoted in co-governance models for forests (e.g., participatory forestry), as a way to leverage enhanced community participation in decision-making to achieve conservation goals (Hayes & Persha, 2010). However, a persistent challenge with co-governance in practice is continued insufficient local participation in decision-making. For example, policy-makers and resource managers expect that decentralization efforts will promote the development of institutional arrangements characterized by enhanced local participation and access to resource benefits (Ribot, 2004). Yet, the tendency for co-governance models to further reinforce unequal participation among actors, which in turn may result to unequal access to resources persists (Hill *et al.* 2012). Other persisting challenges include the disproportionate consideration of the interests of powerful actors including the state and international actors and difficulties with incorporating multiple knowledge forms in co-governance (Thompson, 2018). I define knowledge form as “a body of propositions that are adhered to, whether formally or informally, and are routinely used to claim truth” (Löfmarck & Lidskog 2017: p23). Overall, resource governance characterized by insufficient local participation (Ruwhiu & Carter, 2016) and weak institutions/institutional arrangements continue to overwhelm proposed joint decision-making processes (Rantala et al., 2014).

Difficulties with promoting local participation in decision-making and weak institutions/institutional arrangements are also key challenges at the international scale

(Montana, 2017). This is especially so in the case of Indigenous participation in global fora for resource governance (Dove, 2006; Obermeister, 2017). Participation in decision-making in global fora often favor the participation of more powerful actors including representatives of states, intergovernmental organizations and donor organizations (Paulson et al., 2012). This further reinforces decision-making processes that favor western science over other forms of knowledge such as Indigenous knowledge (Montana, 2017). At the international scale, policy-makers have put forward mechanisms and tools, for example, mechanisms that seek to enhance the scaling up of Indigenous innovations, which will in turn, facilitate Indigenous participation in global decision-making. Examples of these mechanisms and tools are the development of safeguards by the UNFCCC's 16th Conference of Parties (COP), the Convention on Biological Diversity (CBD), Article 8(j) in relation to the work of the Convention and Aichi Target, and the United Nations Declaration on the Right of Indigenous Peoples (UNDRIP). Similarly, policy makers put forward institutional arrangements to monitor these mechanisms and tools. This includes the Indigenous Peoples' Major Group for Sustainable Development. Despite these efforts, evaluations of Indigenous participation in resource governance at the international scale of governance often highlight that institutions and institutional arrangements tend to favor the participation of more powerful actors such as government representatives while limiting local participation in policy debates (e.g. Dove, 2006; McLean, *et al*, 2012; Paulson *et al.*, 2012).

Understanding how institutions operating at multiple scales of governance shape and structure participation of diverse actors (and eventual outcomes including access to resources) remains an under-examined challenge (Maryudi, Nurrochmat and Giessen, 2018). This can be examined by analyzing the following political dimensions (Lange et al., 2013): i) politics in relation to

participation of actors, ii) polity in term of institutions and institutional arrangements and iii) policy in terms of policy objectives and instruments. This thesis examines these dimensions to advance understanding about participation of local and Indigenous communities in resource governance across scales. The specific objectives of the thesis are to;

1. Deepen understanding about the nature and extent of participation in decision-making in resource governance for landscape restoration and water as it occurs at multiple scales.
2. Examine the influence of both longstanding and emerging institutions and institutional arrangements on participation of different actors (e.g. Indigenous Peoples and Local communities, state actors like agencies and municipal governments, NGOs and INGOs) as they pursue different objectives (e.g. inclusion of local perspectives and enhanced community participation in water governance).
3. Identify recommendations for designing and implementing participatory processes and institutional arrangements for resource governance, in ways that address persisting difficulties whilst ensuring meaningful local participation.

1.2 Conceptual framework

To explore the challenges outlined above, this thesis draws on the scholarship of multilevel governance and politics of participation in resource governance. Below is the synthesis upon which I broadly situate the analysis in this thesis.

Table 1.1 Summary of key insights in conceptual framework

Body of literature	Key insights
Multilevel governance	<ul style="list-style-type: none"> ▪ First used to describe EU government integration in the early 1990s (Pazos-Vidal, 2019). ▪ Useful for examining institutions/institutional arrangements characterized by actors, values, interests and actions that interact and shape decision-making processes across scales of governance (Pazos-Vidal, 2019). ▪ Requires understanding <i>scales</i> and <i>levels</i> as they relate to interaction among actors (Cash et al., 2006). ▪ Characterized by both horizontal and vertical dimensions, actors may interact not only within the same level but also across different territorial, administrative, and jurisdictional scales (Sattler et al., 2016)
Politics of participation	<ul style="list-style-type: none"> ▪ Participation in resource governance is characteristically a multilevel and networked process (Cash <i>et al.</i> 2006; Pomeranz <i>et al.</i>, 2014; Rantala, Hajjar and Skutsch 2014; Hileman and Lubell, 2018) ▪ Different actors are connected to different degrees and structures of power (Ribot & Peluso, 2009) ▪ Power shapes participation, which in turn shapes access to resource benefits (Ribot & Peluso 2009) ▪ Meaningful participation is defined by communicative processes that occur in resource governance, and focus on ensuring the participation of actors that will be most affected by policy actions (Diduck et al., 2007) ▪ Core debates relate to issues of procedural equity (inclusion or exclusion in decision-making processes) in terms of participation of local actors (Newton et al., 2015) ▪ Adaptive governance approach for facilitating local participation through learning-by-doing (e.g. Plummer <i>et al.</i>, 2012; Lubell <i>et al.</i>, 2013; Allen and Garmestani, 2015) ▪ Emerging institutional arrangements to tackle issues of participation (procedural equity) – linked to the roles of boundary organizations (e.g. Carlsson and Berkes, 2005; Berkes, 2009; Robinson and Wallington, 2012)

1.2.1 Multilevel governance

Beginning around the 1990's, the literature on institutions and governance shifted from an emphasis on “creating the conditions for ordered rule and collective action” (Stoker 1998: p17) – in other words, a focus on government, towards understanding the processes by which “societies or organizations make important decisions, determine who is involved in the process and how they render account” Graham et al. (2003: p1). This shift in attention from government institutions to governance, reflects societal changes in decision-making described by Arts (2014: p17) as the “transition from state-driven to non-state governance arrangements”. As for the conditions that prompted this, a brief reflection on history is illustrative. Up to the 19th century, ownership of natural resources, such as forests, often resided with the European states and this state-driven arrangement was exported to colonies (Arts, 2014). Due to challenges including exploitation of resources in ways that contradict local needs, and corruption in forest value chains, promotion of reforms for state-driven governance arrangement began – referred to as ‘shift from government to governance’ (Rosenau & Czempiel, 1992). Arts & Visseren-Hamakers (2012) attribute the shift from government to governance to loss of confidence in government institutions and prevailing views among actors that requirements (e.g. context-specific knowledge) for promoting resource governance can be better identified through the involvement of all actors with vested interests in the resources (e.g. including communities and private entities). In this thesis, I define resource governance as the processes that determine how power and responsibilities over resources are exercised, how decisions are taken and how actors participate in and benefit from resources (Graham et al., 2003). With this transition from government to governance, policy makers and resource managers expect resource governance to be characterized by participation of multiple actors and opportunities for local people to be

engaged in decision making and policy development (Connelly, 2011). The extent to which this shift has resulted in desired outcomes, such as the inclusion of communities and addressing local values and needs, is central to many investigations (e.g. Agrawal 2003; Pomeranz et al. 2014; Sattler et al. 2016).

In addition to the expanded role and involvement of non-state actors, one common characteristic of resource governance in recent decades is the multiple scales/levels at which governance operates.

Gary Marks first introduced the concept of multilevel governance (MLG) in the early 1990s to describe interactions between different levels of governments in the context of the European Union integration (Pazos-Vidal, 2019). Following its usage in the EU political arena, scholars have applied the MLG concept across a range of natural resource governance contexts, (e.g. climate change debates (Bulkeley & Betsill, 2013), wildlife (Pomeranz et al., 2014), biodiversity conservation (Bisaro et al., 2010) and water governance (Moss & Newig, 2010). Across different applications, the concept of MLG has been used to examine institutions and institutional arrangements characterized by actors, values, interests and actions that interact and shape decision-making processes across scales of governance (Pazos-Vidal, 2019). Similar ideas that relate to MLG include networked governance (Garcia-Lopez, 2013) and polycentric governance (Ostrom, 2009).

The concept of MLG highlights the need to understand the meaning of scale and level as they relate to understanding interactions among actors (Cash et al., 2006). “Scale refers to spatial,

temporal, quantitative, or analytical dimensions used to measure and study any phenomenon and levels refers to the units of analysis that are located at different positions on a scale” (Gibson, Ostrom and Ahn, 2000; p 218). Interactions among actors can occur within and/or across scales. Cross-level interactions refer to interactions that occur among levels within a scale while cross-scale interactions refer to interactions across different scales (Cash *et al.*, 2006). This means that MLG is characterized by both horizontal and vertical dimensions, and actors may interact not only within the same level but also across different territorial, administrative, and jurisdictional scales (Sattler et al., 2016).

This thesis applied the concept of MLG for examining scalar and multilevel aspects of interactions among actors (Cash et al., 2006). That is, I examined interactions of actors at different levels, where levels as it is applied here stretch from the local to the regional and national and international scales (Sattler et al., 2016). Power is central to understanding MLG and power is strongly linked with participation (Rantala et al., 2014). Power shapes interactions among actors. Power is the application of action, knowledge, and resources to further interests (Adger et al., 2005). In the context of resource governance, key elements that should be examined to understand the effects of power on MLG include; approaches to assigning roles (Sattler et al., 2016), deliberation and negotiation that underlie decision-making (Montana, 2017), identification of trade-offs and compromises (Spash, 2015), and the allocation of costs and benefits across actor categories (Franks & Schreckenberg, 2016). At the core, these key elements signal the importance of understanding participation.

1.2.2 Participation as a multilevel and networked process in resource governance

Analytically, participation in resource governance can be understood as a multilevel and networked process, given that it involves interactions among diverse actors operating at different scales of governance and with diverse/multiple objectives (e.g. Cash *et al.* 2006; Pomeranz *et al.*, 2014; Rantala, Hajjar and Skutsch 2014; Hileman and Lubell, 2018). The ways actors participate in decision-making, in terms of drawing attention to the interests and objectives they seek, is shaped by their views of the resource concerned (Adger *et al.*, 2005). As an illustration, an actor or group of actors can view a forest through multiple lenses. This can range from viewing a single patch of forested area as a community sacred grove (local objective) to an important part of the global carbon sink (global objective). On the one hand, this indicates that a single patch of forest is capable of serving multiple objectives as reflected by the interests of diverse actors that operate at different scales of governance – from local to international. On the other hand, this also highlights that a forest in terms of its objectives, ownership and governance can be highly contested by diverse actors across different scales of governance. An example of a situation when objectives conflict would include a scenario whereby communities primarily view a forest patch as source of livelihood sustenance via resource extractions like firewood while the state promotes forest protection with limiting extraction policy (e.g. Van Dam, 2011).

The concept of multilevel governance emerged as a way to understand participation and linkages of multiple actors in resource governance, especially as global issues including climate change, declining forest cover, and water scarcity have enlarged the geographical scope of resource governance challenges and further demonstrate the interdependence of actors (Hileman & Lubell, 2018). Common debates in literature about participation in multilevel governance

contexts highlight issues, including controversies among actors about suitable governance approaches (e.g. Phelps, Webb and Agrawal, 2010; Rantala, Hajjar and Skutsch, 2014; Newton *et al.*, 2015) and limited resource accessibility for communities which require urgent interventions (e.g. Biedenweg, 2012; Coleman, 2012; Rana and Chhatre, 2017).

The work of scholars focusing on participation in resource governance often discuss why participation is important in the context of procedural equity (e.g. Mansourian, 2017 and Zafra-Calvo *et al.*, 2017). Procedural equity relates to inclusions (or exclusions) in governance and the way by which these inclusions/exclusions shape the ability to gain and maintain access to resource governance processes (Martin, Gross-Camp, Kebede & McGuire 2014). Procedural equity shapes access to resource benefits across actor categories (Mansourian, 2017). In the context of procedural equity at the global scale, prior scholarship highlights that the participation of Indigenous Peoples has implications for the extent to which plural interests and knowledge are reflected in policies and programs, and the successful identification of on-site challenges and suitable policy actions (Eggermont *et al.*, 2015). At the local to national scale, the participation of local actors such as community groups and Indigenous Peoples has been linked to long-term collaborative actions and as a way to strengthen local institutions (Pomeranz *et al.*, 2014).

There is ample evidence that, local participation in resource governance alone may not guarantee procedural equity (e.g. Lemos & Agrawal 2006; Wondolleck & Yaffee 2000). The participation of multiple actors, including local actors may fail to advance procedural equity due to the presence of other limitations including; historical and ideological barriers (Turner *et al.* 2008), conflicting goals (McShane *et al.* 2011), differing perceptions of risk (Trainor 2006), and

inflexible bureaucracies that limit involvement of diverse actors or views (Wondolleck & Yaffee 2000). Issues related to procedural equity, more specifically, insufficient local participation in resources governance, are likely to persist if participatory interventions do not recognize broader context including the existence of other limitations identified above (Morales & Harris, 2014).

Seeking procedural equity for local actors draws attention to examining how spaces of participation inform participation of multiple actors and implications for resource governance (e.g. Cornwall, 2004; Fritz & Binder, 2018; Randell, 2004). Spaces of participation refers to sites of potential deliberation where power relations among actors and the characteristics of physical meeting spaces serve to structure and make possible certain forms of participation over others (Cornwall, 2002). Attention to spaces of participation means recognizing that the characteristics of a site (e.g. spatial organization of participants in a room and allocation of roles among actors) where deliberations about appropriate governance approaches occur are important as this tend to shape decision-making. In the context of understanding how spaces of participation shape participation of multiple actors in resource governance, an important element, which partly inform the analytical contribution of this dissertation (e.g. as seen in Chapter 2) is examining how procedural equity is shaped by structures of power and different levels of access to spaces of participation. Furthermore, as it relates to seeking procedural equity for local actors, it is important to consider uncertainties related to how resource and involved actors will respond to policy actions. Plummer *et al.* (2012) suggest approaches to resource governance that emphasize continuous learning and application of lessons learnt in governance over time. This is referred to as an adaptive governance approach.

1.2.3 Understanding local participation in resource governance

Adaptive governance approaches focus on participatory processes based on learning by doing, which is characteristically continuous. It is also based on the achievement of outcomes that are shared by concerned actors, especially those that will be most affected by policy actions (Plummer *et al.* 2012). Adaptive governance approaches are best operationalized by paying attention to context-specific parameters, including how actors view a resource and its utility (as illustrated with forests above) and the spaces of participation where decision-making occur. The dynamics of context-specific parameters vary across geographical locations and time, and feature high levels of uncertainty (Lubell *et al.* 2013). For adaptive governance approaches, enhancing local participation requires institutional arrangements that reflect understanding that resource governance involves diverse actors that work across governance scales and recognizes persisting challenges related to local participation. Previous scholarship has demonstrated that meaningful local participation is characterized by interventions that simultaneously recognize broader contexts (e.g. as described above there are other limitations that contribute to issues of local participation in resource governance) as well as individual experiences and capabilities (Morales & Harris, 2014). For the latter, paying attention to individual experiences (e.g. in terms of skills and assets and how these shape self-perception) underscores how community-level changes that are often pursued through participatory interventions may result in unsustainable outcomes (Agarwal, 2001). For examples, factors such as varying exposure to empowerment opportunities can create asymmetries in participation in resource governance that tend to vary across racial and gendered lines (Nightingale, 2002; Nightingale, 2011). For local communities and Indigenous Peoples, being a member of a racial or ethnic minority, or a woman, can play a key role in the extent and nature of participation in resource governance (Agarwal, 2001; Morales & Harris,

2014). For example, using the case of community forestry in Nepal, Nightingale (2002) shows how gender and ethnic identities can shape how individual perceive themselves and their self worth. In turn, such individual may align themselves with acceptable social norms and hierarchies even if such alignment places them in situation where their interest is relegated. In that sense, desirable or meaningful local participation need to recognize subtle, normalized, and power dynamics present at individual levels, which may be invisible at community levels (Morales & Harris, 2014). Furthermore, spaces, in terms of how they are characterized can significantly impact the form of participation that is manifested or experienced by individuals (Cornwall, 2002, 2004). In this sense, meaningful participation requires attention to how spaces are created and by whom and how accessible spaces are for marginalized actors such as Indigenous Peoples. In addition, meaningful local participation can be achieved through institutional arrangements that are attentive to, and seek to overcome the ways that individual experiences might limit participation (Cornwall, 2004).

Across governance scales, an increasing number of institutional arrangements are emerging, in addition to longstanding ones, which represent opportunities for promoting local participation in decision-making, engaging in mutual learning and strengthening multi-actor cooperation for resource governance (Rantala et al., 2014). These institutional arrangements are being espoused by institutions that aim to bring together concerned actors such as government, civil society, Indigenous Peoples, business, and academia to deliberate about emerging issues in resource governance, and to put forward strategies to reach desired objectives.

On a related note, boundary organizations have been suggested as playing a key role in facilitating participation of different actors at multiple scales of governance, so as to better achieve desired outcomes (Carlsson and Berkes, 2005). Boundary organizations are “organizations that act as intermediaries between organizations, sectors or across levels, to identify problem, knowledge needs and solutions by building relationships across the boundaries between social worlds” (Robinson and Wallington 2012: p3).

At the international scale, these institutional arrangements often occur in the form of platforms (spaces of participation) for multi-actor deliberations and negotiations about resource governance goals and priorities, for example, as seen at Conference of the Parties to the Convention on Biological Diversity (CBD), and at World Conservation Congresses organized by the International Union for Conservation of Nature (IUCN). At the local, regional and national scales, institutional arrangements may occur in the form of efforts by governments to enhance participation of non-state actors such as local communities (e.g. in the context of community forestry) or private entities (e.g. in the context of encouraging private investments) in resource governance. Additionally, at the local, regional and national scales, institutional arrangements promoted by environmental non-governmental organizations (ENGO) are becoming an increasing trend, due to persisting controversies among scholars about the effectiveness of government-sponsored institutional arrangements in ensuring local participation and delivery of outcomes, such as enhanced community access to resource benefits (Ayana et al., 2018).

The roles of these institutional arrangements and institutions in shaping the participation of multiple actors in resource governance have been a focus of several investigations. At the global

scale of resource governance, examples include McLean, Johnson and Castillo, (2012); Campbell *et al.*, (2014); Montana, (2017) and Obermeister, (2017). At the local, regional and national scales, examples include (Springate-Baginski and Wollenberg, (2010); Osborne, Bellante and vonHedemann, (2014); Pomeranz *et al.*, (2014) and Gray, (2016). Across a number of these recent empirical analyses, issues that require further investigation include how longstanding and emerging institutions and institutional arrangements shape participation of local actors and the delivery of desired objectives at the different scales of resource governance. Furthermore, it is important to identify lessons from how these institutions and institutional arrangements seek to address challenges of local participation, and inclusion of diverse interests in the design and implementation of participatory processes for resource governance. Examining this issue is particularly important as it represents a way to advance understanding about how to better give voice to plural values and perspectives in decision-making for resource governance across scales. Additionally, this contributes to the principle of ‘continuous learning by doing’ which constitutes a key element of adaptive resource governance.

1.3 Study context

To investigate both scalar and participatory aspects of resource governance, following on the above conceptual grounding, I pursued this study at three scales using two cases: The World Conservation Congress (WCC) 2016 and the Reciprocal Water Agreement (RWA) in Bolivia. The WCC provides the context for examining how longstanding institutions and institutional arrangements shape the participation of Indigenous Peoples at the international scale (Chapter 2). The RWA provides the context to examine how emerging institutions and institutional

arrangements that stem from and are implemented across regional and national scales shape the participation of diverse actors as they pursue desired objectives (Chapter 4).

The WCC is organized by the International Union for Conservation of Nature (IUCN) and IUCN partners. It is held every four years. The IUCN is an international non-governmental organization that positions itself as “the leading provider of biodiversity knowledge, tools and standards used to influence policy, undertake conservation planning and guide action on the ground” (IUCN, 2012: p5). The IUCN envisions the WCC as a platform for broad participation in resource governance. As stated by IUCN (2015), “the Congress aims to improve how we manage our natural environment for human, social and economic development, but this cannot be achieved by conservationists alone. The IUCN Congress is the place to put aside differences and work together to create good environmental governance, engaging all parts of society to share both the responsibilities and the benefits of conservation”. The Congress has two components, the Forum and the Members’ Assembly. The forum features a range of events from high-level dialogues, to press releases to training workshops and is open to all Congress participants. The members’ assembly is the decision-making body of IUCN. The assembly brings together IUCN members to debate and vote on the program of work for the intervening four years. Some Motions are discussed in small groups - called contact groups - during the course of the Congress. Motions are formal policy statements introduced by different IUCN commissions or groups, primarily to ensure the appropriateness of IUCN programs before opening them for discussion and adoption at the members’ assembly.

The RWA in Bolivia was established by the NGO, Fundación Natura Bolivia (FNB). RWA-Bolivia is characterized by a network of diverse actors with stakes in water governance. The actors are local community stakeholders, water cooperatives, municipal governments and funding agencies. The local community stakeholders are individuals or groups that own patches of forest on private lands in upstream catchment areas. Funding agencies are organizations interested in supporting environmental conservation activities in Bolivia. These organizations are operating at the local, national and international scales. These organizations include national private entities like Banco Los Andes, international actors like Nature and Culture International and the European Union. Water cooperatives and municipal governments are elected officials, and both have institutional mandates to address water governance issues in their respective constituencies. There are other actors with indirect involvement in RWA. These indirect actors influence broader policies in Bolivia, thus shaping the RWA process (e.g. the state through legislation like the Constitution and Water Law).

As indicated above, these two study contexts are characterized by networks of actors, which have different interests and operate across governance scales. In addition, the two contexts provide the opportunity to examine how institutions and institutional arrangements approach the design of spaces of participation as they seek to advance procedural equity (e.g. WCC in Chapter 2) and other community relevant objectives (e.g. RWA in Chapter 4). The two contexts are characterized by different levels of power among actors. In the context of spaces of participation at the WCC, power relations manifest in meeting rooms and events. In the context of the RWA, power relations originate at the first-stage meetings, where negotiation and designing of RWA intervention occur, and manifest the phases of RWA implementation.

1.4 Research approach and methodology

1.4.1 Positionality

I am black, a male, a Nigerian, an African. I carried out my undergraduate study in Nigeria. MSc studies in Wales and Denmark. As part of my MSc degrees pursuit, I did research work with Community Forest User Groups in Uganda and in the mid-hills of Nepal. Additionally, prior to and during my PhD, I worked with global organizations in different capacities, including volunteering for youth-led efforts, planning and implementing global policy fora for multi-stakeholder deliberations in resource governance (e.g. with the International Union of Forest Research Organization (IUFRO) and the Food and Agricultural Organization of the United Nations (FAO)). I am completing a PhD in Canada, with research work in Bolivia. I put these highlights, about my race, background and experience forward in recognition that they need to be unpacked and discussed in relation to how they shape my positionality as a young scholar (Roegman, 2018). The characteristics and engagements highlighted above suggest that I personify marginalization and privilege. A blend of these is who I am. Wherever I go and whatever I pursue, I carry this blend with me. This is my positionality.

My positionality draws attention to debates on the intersection of race, culture and ethnographic research. In particular, debates about “performing whiteness” (Cooks, 2003). The author explains whiteness as a set of strategies used to construct and maintain a dominant white culture and identities. This means that irrespective of physical features such as having a white or black appearance, performance matters. A race exists through the performance of a specific act associated with a race over time (Warren, 2001). Ethnographic research engagements, more specifically, international mobility to study other cultures and contexts, is mostly associated with

the white identity (Pulido, 2002). As I have been told several times in various research sites, “people who usually come here to do field work don’t look like you”. Meaning it could be deemed performing whiteness to embody my positionality.

In most of the communities (e.g. in Nepal and Uganda) that I previously worked with, being a participant in a research that involves a white investigator from the Global North is commonplace. As my previous research always involved on-the-ground collaborators, who would have had to introduce me to research participants before my arrival, my complex and intersectional identities have afforded me increased access to communities and research participants. In Nepal, research participants have asked me, “please, is this the same with Nigeria?” whenever subjects related to marginalization, like community participation in forest decision-making, were discussed. These research participants were interested in knowing about potential similarities between Nigeria and their localities. A research participant once commented, “I know that this issue that we are facing here is likely the same in your country”. This comment was made while discussing the extent to which state-level actors recognize community interests. These lines of questions and/or comments often come from a place of curiosity and feeling of association in terms of perceptions that issues of marginalization of local communities is a common challenge across countries in the Global South.

My intersectional background inevitably shaped the ways in which I conceptualized and was able to pursue this research (Maxwell, 2012). For example, my positionality undoubtedly shaped how research participants and collaborators viewed and interacted with me. As suggested by Berger (2015), positionality can have a number of impacts, including the ability to gain access

and the information that research participants are able or willing to share. Similarly, Maxwell, (2012) underscores the importance of reflecting both on the advantages and disadvantages of one's positionality, including how these are dealt with throughout the research process.

In terms of advantages, in many ways, my positionality was helpful in gaining access to pursue fieldwork related to understanding the participation of different actors in resource governance. For the fieldwork at the World Conservation Congress (WCC), being a young scholar with an intersectional background in a setting that was dominated by the presence of white race (or bodies), I was able to leverage curiosity of some participants to conduct some interviews. Similarly, in my fieldwork in Bolivia, I often received a warm reception to engage with local communities, in part (and as community leaders told me), because of the sense that I am an 'outsider' who 'understands'. It is from this positionality that I curiously engaged with a new frontier of research inquiry in Bolivia. I listened with humility and asked questions that were relevant, not just for me but for the lives of those, whose experiences I sought to understand. I recognize that (inevitable) the way participants and collaborators viewed me directly and indirectly shaped the interviews and participant observation data that I collected. For example, while discussing my research interests during the introductory meeting with my collaborators in Bolivia, Fundación Natura Bolivia (FNB), the project manager of FNB advised that, as a foreign research student, I should refrain from questions or inquiries that may require research participants to identify if they are Indigenous or not. The project manager explained further that due to the colonial history of Bolivia, topics related to identities remain a sensitive subject in the Bolivia (I elaborate on this in Chapter 3). Based on an assessment of the Evo Morales' government efforts in creating a new narrative about identity in Bolivia, Adolfo García Jerez et al. (2015: p131) highlight that "Morales avoided presenting himself as exclusively Indigenous in

order not to endanger the plurality of the Movement for Socialism project”. On a related note, I have a B-level Spanish competencies and I carried out my fieldwork with an assistant, who has a MSc degree in Environmental Science. She is a Spanish. Given my positionality and the colonial history between Spain and Bolivia, I conducted my fieldwork in recognition of and with respect and adherence to the advice offered by the project leader. We interacted with participants in the field following this guidance. As such, while I was able to focus on understanding the nature and extents of Indigenous participation at the WCC, for the study conducted in Bolivia, I refined my questions to focus on understanding community participation more broadly. I further highlight how limitations due to my positionality and language might have shaped my findings in the concluding chapter.

Philosophically, I approached my PhD research work from a combined constructivist and transformative philosophical worldview within a qualitative research design (Creswell, 2014a). In terms of the constructivist worldview, I relied primarily on the views of the participants in the research setting while acknowledging that my own experiences are capable of shaping my interpretations (Hopkins et al., 2017). As informed by my positionality, my focus goes beyond examining issues of participation in resource governance to putting forward recommendations aimed at helping marginalized groups (Creswell, 2014). As encapsulated by objective three, I applied the transformative worldview. These worldviews enabled me to draw on both insiders’ and outsiders’ perspectives to understand the research issue. In this case, the insiders are the different actors present at the WCC and those involved in RWA-Bolivia. These actors provided contextualized accounts. In addition, I, as the outsider added insights that may not be possible within the bounds of the context.

1.4.2 Data collection

Qualitative data collection methods (Marshall & Rossman, 2016) were used to achieve the objectives. These methods include interviews (Chapter 2, 3 and 4), participant observation (Chapter 2 and 4), and document analysis (Chapter 3).

For the study of participation of Indigenous Peoples in international decision-making fora (the WCC), I adopted the Collaborative Event Ethnography (CEE) approach (Campbell, Corson, Gray, MacDonald & Brosius 2014) to address objectives 1, 2 and 3. This approach involved using ethnographic data collection methods including participant observation and interviews, as a member of a research team. This approach enabled me to gather data across a greater range of events, thus significantly increasing the corpus of empirical data collected and available for analysis. Additionally, it enhanced my understanding beyond what would be possible from data collected by a single researcher (I further detail how I used this approach in Chapter 2).

For the study of participation of diverse actors, including local communities in regional and national resource governance context (RWA/Bolivia), I conducted eight months of field research during two field stays between 2017 and 2018, from February to July in 2017 and March to April 2018. I adopted a collaborative research approach (Creswell, 2014a) with data collection that included document analysis, participant observation, and interviews. My approach follows the definition of Pushor (2008: p2), that “collaborative research is research *with* rather than research *on*. It is research that arises out of the expressed needs, interests, and questions of the stakeholders who are most invested in the research and its findings, and it is research conducted

in relationship with them.” In this sense, my collaborator is FNB, the NGO that is coordinating the RWA-Bolivia. To ensure that I follow a shared inquiry of mutual interest and benefit, and given their valuable insight related to approaches to better navigate interaction with communities (as highlighted in my positionality), I worked in close collaboration with FNB to make decisions about the focus of my research, sites of relevance and procedure for data collection, including the specific municipalities to be included in this study. This approach was deemed most appropriate for the research context for at least three reasons. First, it provided an opportunity to examine an issue of community concern and with the potential to benefit the people involved. FNB showed enthusiasm in understanding how their approach could be improved, and if there were lessons that could be learnt before the sites where I conducted my research had to continue the RWA without the supporting role of FNB. Second, it was important for building alliances with collaborators and participants in the research process, as this helped me to gain the trust of the research participants as it relates to the authenticity of my status as a research student. Third, it afforded me better familiarity with the political, social and economic context, which aided in the contextualization and interpretation of the results arising from this study.

Interviews: A combination of purposeful (Patton 2002) and convenience sampling (Maxwell 2012) was used to identify interview participants in both study contexts. Interviews were conducted with representatives of the actors involved. Details about actors can be found in Chapter 2, 3 and 4 (also, see Table 1.2). For examples, in RWA-Bolivia (Chapter 4), I conducted interviews with local community stakeholders, NGO specialists and representatives of municipalities, state, funding agencies and water cooperatives. Broadly, I approached the interviews in ways that helped me to capture individual lived experiences: “how they perceive it,

describe it, feel about it, judge it, remember it, make sense of it, and talk about it with others” (Patton, 2002: p104). Furthermore, I adopted specific criteria for the selection of participants (e.g. actors’ engagement in RWA-Bolivia). I detailed the specific criteria that guided selection of participants and the questions asked during the interviews in each of the data Chapters (2, 3 and 4). All interviews were audio-recorded and transcribed verbatim for subsequent analysis.

Participant observation: I carried out participant observation in both study contexts – WCC and RWA, to understand the social and political contexts that shape participation across actor categories, especially local actors such as Indigenous Peoples. In addition, participant observation helped me to better understand how local interests (e.g. enhanced participation and community access to water) were identified, framed, promoted/contested during debates at the WCC and meetings in RWA governance. Details of participant observation methods in the different contexts are reported in Chapter 2 and 4.

Document analysis: I used this as the primary data collection method in Chapter 3 as it offers a means of investigating change and development and as a viable source of data for inquiries about historic insight (Bowen, 2009) – which is the focus of Chapter 3. I systematically analyzed policy documents about water governance in Bolivia, starting from 1990. These documents included government policies and NGO project-related documents regarding assessments of water resource issues in Bolivia, from 1990 to 2013 (more details in Chapter 3).

1.4.3 Data analysis

Across the three data chapters, field notes for participant observation and interview transcripts were uploaded into NVivo. An analytical procedure following the explanation of Marshall & Rossman, (2016) was adopted. This procedure comprises of the following steps: immersing in the data, coding and generating case summaries, categories and themes. Data immersion was important in this study due to the volume of data collected across the two cases –the WCC and RWA-Bolivia. Coding was done in Nvivo, using line-by-line analysis of notes and transcripts. Coding was systematically done using a combination of theory-guided and open coding processes (Saldana 2009). Theory-guided coding involved identifying themes related to the research objectives and conceptual frameworks for each of the data chapters (e.g. identifying different forms of participation as they manifest (and identified during interviews) at the WCC and categorizing them based on the typology of participation in the conceptual framework of Chapter 2). This process was required to get me acquainted with the likely relationships that may exist in the data and to explore if expected relationships appeared or did not appear from the data. Simultaneously, open coding was done to identify new themes as they emerged in the data through the coding process (Charmaz 2006).

Analysis of documents (e.g. in Chapter 3) followed a deductive approach (Mayring 2014). I conducted directed content analysis to identify a pre-determined set of key attributes from the data (e.g. involved actors, stated objectives and characteristics of community participation). This was done in NVivo, using a line-by-line search of each document.

I applied multiple verification strategies to enhance the validity of my research (Creswell, 1998). These include ensuring congruence between research objectives and methods applied (Morse, Barrett, Mayan, Olson, and Spiers, 2002), and using multiple sources of data to triangulate findings (e.g. triangulating participant observation with interviews, long-term engagement with research participants in the field and seeking for negative cases during interviews). In the study conducted in Bolivia, I pursued iterative interactions between data collection and analysis to enhance the thoroughness of my research. After completing the first phase of data collection (between February and July 2017), I conducted a first level analysis of my data before commencing the second phase of data collection beginning in March 2018. The analysis helped to ensure “a mutual interaction between what is known and what one needs to know” (Morse et al., 2002: p18), so I could better focus on gaps within my data.

1.5 Dissertation structure and chapter summaries

This dissertation consists of five chapters: the introduction (Chapter 1), three data chapters (Chapter 2, 3 and 4) and the conclusion (Chapter 5). The introduction comprises the problem statement that captures the background of my thesis, thesis objectives and the conceptual framework that situates the overall theoretical underpinnings for my research. This is followed by the study context, research approach and methodology, including my positionality and approaches to data collection and analysis. I closed this chapter with the dissertation structure and chapter summaries.

The three data chapters explore the thesis objectives relating to issues of multi-actor participation and the roles of institutions/institutional arrangements in shaping participation across different

scales of resource governance while seeking to enhance local participation and access to resource benefits like water. Chapter summaries for how the thesis objectives were addressed are shown in Table 1.2. Chapter 2 examines Indigenous participation in FLR decision-making at the global scale, using the study of the 2016 WCC (Table 1.2). Chapter 3 analyses how post-1990 water governance policies in Bolivia shape community participation and water access for communities at the national scale. Chapter 4 builds on the insights from Chapter 3. At the regional scale, using the context of RWA in Bolivia, Chapter 4 examines participation of diverse actors, including local communities in the RWA institutional arrangement that seeks to tackle inadequate community access to water. Chapter 5 concludes by drawing the linkages between the three data chapters, synthesizing main findings and highlighting insights from the knowledge mobilization conducted. Furthermore, I discuss the contributions of my thesis to scholarship, policy and practice and identify limitations and future research directions.

Table 1.2 Summary of data chapters (Chapter 2, 3 and 4)

Chapter	Title	Objectives, methods and main findings of chapters
2	Examining participation of Indigenous Peoples in resource governance at the global level: a case of forest/landscape restoration debates at the 2016 World Conservation Congress	This chapter investigates the nature and extent of Indigenous participation in global decision-making for forest and landscape restoration. The study is based on data collected using the Collaborative Event Ethnography methodology, and included participant observation and semi-structured interviews with representatives of governments, international agencies and Indigenous groups. This chapter argues that the structure of the different spaces where FLR debates ensued within the WCC (a longstanding institutional arrangement) are produced by and reproduce asymmetrical power relations between different actors. These asymmetries are manifested/observed as different actors have different degrees of access to shape debates. In part, this results in limited Indigenous participation and the persistence of hierarchies of knowledge considered (with science/expert knowledge being favored over Indigenous knowledge).
3	Post-1990 history of water governance policies in Bolivia and implications for community participation	This chapter examines how water governance policies in Bolivia have changed since the 1990's (when water governance became increasingly driven by foreign capital investments, international actors and privatization efforts) and the effects of these changes on community participation and access. Based on document analysis and key specialist interviews, this chapter characterizes key policies related to forest, agriculture and water governance into two policy regimes identified by Müller <i>et al.</i> (2014): the neoliberal policy regime (1990 to 2005) and the Living Well policy regime (2006 – 2013). It describes how the characteristics of these periods were reflected in the key policies (by tracing involved actors, objectives sought, community participation and attributes of intersectoral coordination). Further, it identifies a persistent lack of cooperation across state agencies with similar objectives (despite declarations/intentions otherwise) and policy contradictions that limit community participation in water decision-making, in turn, shape community access to water. This chapter argues that water governance approaches that encourage the participation of non-

		state actors, promotes traditional systems of water governance and supports the development of local institutions, are needed to promote community participation in water governance.
4	The role of boundary organizations in shaping participation in an emerging approach to water governance in Bolivia	This chapter examines the extent and how a PES-like approach (the RWA institutional arrangement) addresses persisting criticisms of PES, especially in terms of participation—and the role of NGOs as boundary organizations in structuring relationships among actors. This study adopts a collaborative research approach that includes participant observation and semi-structured interviews with representatives of the state, local community stakeholders, water and funding agencies. Using the concept of boundary organizations (e.g. as applied to the RWA), this chapter demonstrates how RWA appears to uphold prevailing participation asymmetries and shapes views of actors about community access to water. Additionally, this chapter shows that as a boundary organization, FNB performs a number of specific functions as it relates to relationship and trust building, which are crucial to understanding participation in RWA.

Chapter 2: At the international scale

Participation of Indigenous Peoples in resource governance: a case of forest and landscape restoration debates at the 2016 World Conservation Congress

2.1 Introduction

2.1.1 Indigenous participation within global resource governance

Ensuring the meaningful participation of Indigenous groups in resources governance at multiple scales (Montana 2017) is widely recognized as an important principle of governance for both ethical and instrumental reasons (Hirsch 2017). Ethically, Indigenous communities are often disproportionately affected by inadequate access to resources and thus ought to have a say in potential responses (Demeritt 2015). Instrumentally, meaningful participation is linked with enhanced project buy-in among actors (Rana & Chhatre 2017), and improved outcomes (Castro & Nielsen 2001; Kaspersen 2006; Berkes 2009; Secco *et al* 2014). Diduck *et al* (2007) define meaningful participation as a communicative process involving the continuous exchange of ideas among participants in resource governance. While such processes ought to be informed by Indigenous values, knowledge, and aspirations for intergenerational development (Ruwhiu & Carter 2016), meaningful participation of Indigenous actors—especially those who will be most affected by policy actions—continues to be an elusive goal in practice (Clark *et al.*, 2016).

Participation within global resource governance in particular has tended to favor the participation of state representatives, funding agencies and intergovernmental specialists operating internationally, over Indigenous communities (McLean *et al*, 2012). Previous research has thus identified the importance of making global resource governance more accessible to Indigenous

Peoples through cooperation (McLean 2012; Obermeister 2017) and mechanisms to foster the scaling-up of Indigenous innovations (Chirenje *et al.*, 2013). Globally, advisory bodies such as the United Nations Permanent Forum on Indigenous Issues (UNPFII), and policy instruments such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) were developed in response to some of the concerns outlined above. Additionally, Article 8(j) and Aichi Biodiversity Target 18 concerned with traditional knowledge, innovations and practices within the Convention on Biological Diversity (CBD), indicate institutional efforts to advance the inclusion of Indigenous Peoples and knowledge in global resource governance (CBD 2010). Still, Paulson *et al* (2012) argue that efforts such as those described above, have yet to translate into meaningful participation of Indigenous Peoples in decision-making and actions on the ground. Further, other scholars point to fundamental discrepancies between the logics that guide global resource governance, and Indigenous ways of knowing that are inextricably tied to particular locales (Dove, 2006).

2.1.2 Equity, access and knowledge

Previous studies on Indigenous participation within global resource governance highlight the linkages between participation and equity (McLean *et al.* 2012), where equity is commonly recognized in relation to the dimensions of recognition, procedure and distribution (McDermott *et al.*, 2013). Recognition refers to acknowledging and respecting Indigenous rights, values, knowledge, interests, priorities and dignities (Franks & Schreckenberg 2016). Procedure refers to the processes by which decisions are made including who should or should not receive benefits, and conflict resolution (Zafra-Calvo *et al.* 2017). Distribution concerns the allocation of costs and benefits among actors (Pascual *et al.*, 2010). Key insights arising from this line of

scholarship include the importance of recognizing that the three dimensions are “inevitably interrelated” and interdependent (McDermott et al. 2013: p421), for example procedural equity shaping distributive equity (Ribot & Peluso 2009), as well as the ways by which equity outcomes are shaped by access and power. Regarding the latter, there is ample evidence to indicate that access to governance is shaped by the fact that different actors are connected to different degrees and structures of power (Ribot & Peluso, 2009). Further, these connections are mediated by both material factors (e.g. presence or absence of translation devices and services) and symbolic factors (e.g. perceptions about the credibility of various actors) both of which are strong determinants of the nature of participation in global fora (Ehn, 2008). According to IASG (2014) and Maryudi et al. (2018), Indigenous Peoples often have little or no power to gain and maintain access to platforms for global resource governance in comparison to organization specialists, state and international actors. The result of these asymmetries is the disproportional consideration of expert advice based on western science and values over other values and forms of knowledge such as Indigenous knowledge (Weiler 2009; Kleinschmit et al., 2009). I define knowledge form as “a body of propositions that are adhered to, whether formally or informally, and are routinely used to claim truth” (Löfmarck & Lidskog 2017: p23). Turnhout, Neves & de Lijster (2014) argue that incorporating multiple knowledge forms is crucial for advancing procedural equity in governance.

Following from the above, I focus my inquiry on participation of different actors in global fora in relation to the inclusion (or exclusion) of Indigenous representatives and perspectives in governance, and the ways by which these inclusions/exclusions shape the ability of Indigenous Peoples to gain and maintain access to decision-making processes (Martin *et al.*, 2014). In doing

so, I examine procedural equity and how it is shaped by structures of power, access to decision-making processes (Ribot & Peluso, 2009), and the consideration of different knowledge forms (Schreckenberg *et al.*, 2016; Zafra-Calvo *et al.*, 2017). Further I highlight the role of physical meeting space (e.g. built environment and spatial organization of participants), and key aspects of participatory spaces (e.g. invited versus collaborative) in relation to understanding the types of participation observed (further described below).

I use the problem domain of forest and landscape restoration (FLR) to explore Indigenous participation and specifically concerns about equity, access, and knowledge in global fora of resource governance. The potential implications of FLR initiatives for equity as experienced at the local level are well-recognized (Castro & Nielsen 2001; Kanowski *et al* 2011; Osborne *et al* 2014; Springate-Baginski & Wollenberg 2010), making it a particularly useful and important case to better understand participation and equity-related concerns. More specifically, successful implementation of FLR initiatives requires early and ongoing collaborations among different actors to foster the inclusion and consideration of plural knowledge and values in decisions, and help to ensure the equitable distribution of costs and benefits of policies and programs (Mansourian 2017). The importance of doing so is underscored by the observation that of an estimated one billion forest-dependent people worldwide, sixty million are Indigenous Peoples (Rahman & Alam 2016), and so achieving successful FLR in particular locales relies on the participation of Indigenous Peoples to identify on-site challenges and develop policies for successfully implementing FLR (Eggermont *et al.* 2015). Finally, Bulkan (2017) argues that global fora are often perceived by Indigenous Peoples themselves as a powerful avenue to express their views about FLR issues. Considering the challenges of Indigenous participation in

global resource governance broadly, and the need to ensure effective FLR to address societal challenges more specifically, examining the nature and extent of Indigenous participation in governance for FLR initiatives within the context of resource governance at global fora, represents an important and under-examined area of empirical inquiry.

2.1.3 Indigenous participation in forests and landscape restoration debates on the global stage

Approaches for operationalizing meaningful participation in FLR decision-making vary depending on how participation is defined. Below, I present a typology of participation that synthesizes insights from previous scholarship in participatory forestry (Pimbert and Pretty 1995; Hobley 1996; Agarwal 2001 and Guillaume 2017), civic engagement (Arnstein 1969 and Ekman & Amnå, 2012), development (Mansuri & Rao, 2013) and spaces of participation (Cornwall 2002 and Hirsch 2017). The typology is summarized in Table 2.1 and reflects a spectrum of participation ranging from passive to active forms (Benham 2017 and Demeritt 2015). In passive forms of participation, the involvement of local actors such as Indigenous communities, is constrained to the provision of supplementary knowledge (Benham 2017), while the power to gain and maintain access to decision-making processes and spaces is controlled by international and state-level actors. In active forms of participation, local actors participate throughout all stages of governance; from problem identification to policy recommendations and implementation, in ways that afford local actors the opportunity to actively influence processes (e.g. through co-producing knowledge that drives decision-making).

Knowledge that is required for FLR decision-making is not confined to a particular actor group but dispersed among the different actors including Indigenous communities and states (Berkes, 2009). In this thesis, knowledge refers to “to all types of understanding gained through experience or study, whether Indigenous, scientific, scholarly, or otherwise non-academic” (Hess & Ostrom, 2007: p8). Different approaches to categorizing knowledge exist, depending on the epistemological framework. In the context of knowledge systems in resource governance, Raymond *et al.* (2010) describe lay knowledge as individuals’ interpretation of a situation and scientific knowledge as knowledge that is generated via more formalised processes such as through research and/or applying scientific methods. Indigenous knowledge refers to knowledge that are embedded in and which interacts with traditional or cultural rules and norms (Hill *et al.* 2012). Eden *et al.* (2006) highlight an ongoing debate regarding the credibility of the expertise of these knowledge forms, essentially on how the “lay-expert divide is drawn, policed, and challenged” (p1). In the sense that knowledge and power are closely related because different forms of knowledge are endowed with unequal status in decision-making – what Weiler (2009) identifies as “hierarchies in the existing knowledge order”. In resource governance, the knowledge that shapes decision-making tend to be linked to a ‘monopoly’ of expert knowledge producers, who exercise power over others through their expertise (Gaventa & Cornwall, 2006). Scientific knowledge, which Neves-graça (2006: p19) describes as “products of efficacious intervention and control” often occupy the leading position while Indigenous knowledge is often relegated to the lowest rank. Furthermore, the perceived relevance of the knowledge held by individuals or groups informs extent of participation in decision making – who have a say and who does not (Scoones, 2009).

Issues related to marginalization of Indigenous Peoples in FLR debates can partly be explained by relationships between views about how valid a form of knowledge is over others and the different level of access that actors (who are carriers of different forms of knowledge) have to participate in decision-making (Nadasdy, 1999). Furthermore, the classification of knowledge, as I described above, inevitably imposes a structure that is more conducive for western ways of knowing, but ignores the cultural process in which other ways of knowing (e.g. Indigenous ontologies) are embedded (Nadasdy, 1999). In that sense, knowledge shapes the form of participation that is obtainable or manifest in decision-making - whether passive or active. Passive forms of participation can further be categorized as nominal, placation, consultative and activity-specific. Active forms of participation include interactive and self-mobilization/activism (Table 2.1). These different forms of participation both arise from and are shaped by the spaces of participation in which they are embedded. I build on Cornwall's (2002) definition of spaces of participation as sites of potential deliberation where processes of power (e.g. in terms of ability or inability to gain and maintain access to governance processes), knowledge (e.g. in terms of knowledge hierarchies), and the presence or absence of material and symbolic objects (described above) serve to structure and make possible certain forms of participation over others. Hirsch (2017) further parses spaces of participation in terms of invited, claimed and collaborative spaces. Invited spaces are initiated by powerful actors, such as international and state-level agencies and governments, where these groups control access to decision-making processes, and the extent to which different knowledge forms are considered. Material aspects of invited spaces tend to be characterized by settings with inadequate support for Indigenous participation (e.g. lack of translation devices (Ehn, 2008)). Claimed spaces arise from petition for inclusion by way of activism and tend to be characterized by settings which are initially under-resourced for

Indigenous participation but are undergoing changes towards being a collaborative space. These changes tend to arise from a process of negotiation and continuous contestation. Collaborative spaces seek to address procedural equity through cooperation among all relevant actors across all the activities carried out in the space (Hernández-González & Corral, 2017). These activities include; jointly making decisions regarding material elements, conceptualizing the design of the space and joint deliberation regarding goals to be achieved through the activity carried out in the space (Benham, 2017).

Table 2.1 A typology of participation*

	Category of participation	Features	References
<div> <div>Passive</div> <div>↑</div> </div>	Nominal (Agarwal, 2001)	Membership in a group that may or may not include involvement in governance. Often occurs in invited spaces. Examples include membership in a professional association, which does not necessarily include contribution to the decisions that drive the objectives of the association.	(Agarwal 2001; Arnstein 1969; Cornwall 2002; Hobley 1996)
	Placation (Arnstein, 1969)	Observers of decision-making processes. Occurs in invited and claimed spaces. Often includes a group representative that occupies a position with other powerful actors such as state and international level actors that dominate and control decision-making processes and spaces. The extent to which such spaces are claimed remains debated. Examples include youth participation in high-level policy-making fora. Placation is similar to what Arnstein (1969: p 217) refers to as manipulation.	(Agarwal 2001; Arnstein 1969; Cornwall 2002;)
	Consultative (Pimbert & Pretty, 1995)	Participants are consulted on specific questions. More powerful actors, such as state and international actors, identify and frame questions. Responses provided by participants are often used to suit the objectives of those conducting the consultation or may be ignored. Like placation, this type of participation occurs in invited or claimed spaces. In a claimed space, its helpfulness is contested among critics of global resource governance. Examples include consultations of Indigenous Peoples to provide feedback on policy frameworks such as the IUCN program of work.	(Agarwal 2001; Arnstein 1969; Cornwall 2002; Ekman & Amnå 2012; Hobley 1996)
	Activity-specific (Agarwal, 2001)	Involvement of less powerful actors to serve pre-determined and specific purposes, usually within a larger project framework in which less powerful actors cannot gain and maintain access to governance. This can be deemed exploitative in the sense that the involvement of less powerful actors is purposefully designed by activity proponents to promote a set of predetermined objectives. Its occurrence in participation spaces is the same as in consultative participation. Examples include the participation of Indigenous Peoples as providers of supplementary knowledge in governance.	(Agarwal 2001; Cornwall 2002; Hobley 1996)
<div> <div>Active</div> <div>↓</div> </div>	Interactive (Pimbert & Pretty, 1995)	Broad involvement across the different stages of governance. A deliberative process where all actors including Indigenous Peoples, have sufficient levels of stakes in the costs and benefits of outcomes. This type of participation often adopts approaches that encourage the use of multiple knowledge forms as well as shared learning processes. Occurs in collaborative spaces. Examples include adaptive collaborative forest management interventions.	(Agarwal 2001; Arnstein 1969; Cornwall 2002; Hobley 1996)
	Self-mobilization or activism (Pimbert & Pretty, 1995)	Usually in the form of collective action with a focus of changing existing social structures. This type of participation could be at an individual or network (group) based level. Often takes place in claimed spaces with the goal of attaining collaborative spaces. Examples include signing petitions, new social movements and protests.	(Cornwall 2002; Ekman & Amnå 2012; Hobley 1996)

**Citations in the first column indicate the source for the original use of a given term (e.g. “nominal”, “placation”). To illustrate the linkages between different forms of participation and the spaces where they are likely to occur, the features highlighted in the second column are a synthesis of gradations of participation based on levels of power held by participants (based on the work of prior scholars that I cite in the 3rd column) and Cornwall’s spaces of participation.*

While this study was not designed to explore diverse ontologies and epistemologies, and as above, the typology above inevitably reproduces the dominant ways of knowing that characterize policy contexts, it is nonetheless a useful heuristic to highlight differences in participation in policy settings and to spark further reflection on overcoming persistent asymmetries. Other typologies of participation that capture the importance of linkages between knowledge, forms of participation and the spaces where they are likely to occur include the following. Cornwall, (1995) identifies a typology of participation in resource governance that includes co-learning and collective action. In co-learning, Indigenous Peoples and outsiders (e.g. more powerful actors like governments) share their knowledge to create new understanding and work together to develop policy actions and the space where decision-making occur. Outsiders tend to be facilitators. In collective action, Indigenous Peoples set their own agenda, identify the knowledge that is needed and implement the agenda on their own. Spaces are designed solely by Indigenous Peoples. Outsiders are not involved in the process and are absent in the space where decision-making occur.

In this study, I examine the connections between forms and spaces of participation as summarized above in relation to debates about FLR in global resource governance. In doing so, I identify the connections between power and access in the context of global FLR decision-making and examine how these relationships enable or constrain participation for different actor groups. The World Conservation Congress (WCC) is one such global forum where the participation of Indigenous actors can be examined to make visible the ways by which prevailing structures of power shape access and the consideration of different knowledge forms in the context of FLR debates. Furthermore, deliberations about FLR that occur at the WCC, as a site of global

resource governance, shape key FLR agenda and initiatives on the ground. As an illustration, the International Union for Conservation of Nature (IUCN), which organizes the WCC, launched the Bonn Challenge together with the German government in 2011 (Temperton et al., 2019). The Bonn Challenge is a global FLR initiative to begin restoring 350 million hectares of degraded forest and agricultural land by 2030 (Verdone & Seidl, 2017). The relevance of the Bonn Challenge for Indigenous Peoples and local communities was summarized by The Bonn Challenge, (2015) as “the restoration of 150 million hectares of degraded and deforested lands in biomes around the world – in line with the FLR approach – will create approximately USD 84 billion per year in net benefits that could bring direct additional income opportunities for rural communities.” The IUCN is the secretariat of the Bonn Challenge and key debates regarding the goals and progress related to the implementation of the Bonn Challenge take place at the WCC (e.g. see Appendix A, the pavilion event - restoring resilient ecosystems and communities: Bonn Challenge implementation in the United States).

Considering the above, this study addresses two questions: (1) To what extent and how does the structure of the WCC serve to perpetuate or overcome known difficulties relating to Indigenous participation in FLR debates (e.g. in terms of access, power to influence process and recognition of knowledge)? (2) What challenges to meaningful participation persist from the perspective of different actors (Indigenous Peoples’ representatives (IRs), international non-governmental organization (INGO) and non-governmental organization (NGO) specialists), and what changes can be made to more fully achieve equitable participation in global fora?

2.2 Methodology

2.2.1 Approach and data collection

This study was conducted at the 2016 WCC, which took place in Honolulu, Hawaii, United States, from 1st – 10th September 2016. The WCC is organized by the International Union for Conservation of Nature (IUCN) and held every four years. The IUCN is an international non-governmental organization that positions itself as “the leading provider of biodiversity knowledge, tools and standards used to influence policy, undertake conservation planning and guide action on the ground” (IUCN, 2012: p5). The IUCN envisions the WCC as a center that promotes broad participation in resource governance (IUCN, 2015): “the Congress aims to improve how we manage our natural environment for human, social and economic development, but this cannot be achieved by conservationists alone. The IUCN Congress is the place to put aside differences and work together to create effective resource governance, engaging all parts of society to share both the responsibilities and the benefits of conservation”. The Congress has two components, the Forum and the Members’ Assembly. The forum features events ranging from high-level dialogues, to press releases, to training workshops, and is open to all Congress participants. The Members’ Assembly is the governance body of IUCN. The Assembly brings together IUCN members to debate and vote on the program of work for the upcoming four years. Some Motions are discussed in small groups called Contact Groups. Motions are formal policy statements introduced by different IUCN commissions or groups primarily to ensure the appropriateness of IUCN programs before the programs are opened for discussion and adoption at the Members’ Assembly.

Data was collected following the Collaborative Event Ethnography (CEE) methodology (Campbell, Corson, Gray, MacDonald & Brosius 2014). CEE involves ethnographic data collection methods, including interviews, participant observations and document analysis, at key policy-relevant events. The CEE research team at the WCC 2016 consisted of 12 members: five faculty members, two PhD students and five undergraduate research assistants. Members of the team focused on a range of themes including indigeneity, equity, green economy/markets/natural capital, rights-based framing, and politics of knowledge. A team approach enables data to be collected across a greater range of events, thus significantly increasing the corpus of empirical data collected and available for analysis and interpretation. A collaborative approach fosters enhanced insights beyond what would be possible from data collected by a single researcher. The empirical basis for the study reported here derives from participant observation which I conducted with the assistance of an undergraduate research assistant. I solely conducted the semi-structured interviews.

Participant observation: I and the undergraduate research assistant attended all Forum and Members' Assembly events related to FLR (Appendix A). I collected data on the nature of participation in relation to access and knowledge at 23 Forum events, which included a range of different formats (e.g. workshops, knowledge cafés, and pavilion events). I observed deliberations at the fifth and seventh sittings of the Members' Assembly as well as at the two sittings of the Contact Group on the Motion relating to 'Protection of primary forests, ancient forests and intact forest landscapes.' In total, participant observation was conducted at 27 events (48 hours).

Detailed field notes were taken at each event. Field notes focused on characterizing the processes by which power and access were negotiated by different actors. Accordingly, I focused on the characteristics of the presenters/moderators and audience; observations about extent and nature of participation of Indigenous representatives (either as speakers, commentators or panelists) in comparison to other actors, and the extent to which Indigenous representatives were able to fulfill their roles. I also sought to characterize conversations about knowledge including debates about knowledge forms, and the involvement of different knowledge holders as active or passive participants, and allotted time to make interventions in comparison to other speakers. The material characteristics of spaces of participation were also noted (e.g. availability of resources such as translation, the design of the rooms). Photographs that visually represent the processes taking place during the events as well as audio recording of the events were also taken.

Interviews: I conducted 13 semi-structured interviews at the WCC with 17 individuals (Table 2.2). Interviews covered topics including views about participation of different actors in FLR debates, the use of Indigenous knowledge, challenges to the use of Indigenous knowledge in FLR debates, and views about potential solutions to address identified challenges (Appendix B). A combination of purposive (Patton, 2002) and convenience sampling (Maxwell, 2012) was used to identify potential interviewees among Congress participants. About 10,000 participants were at the Congress and are composed of conservation scientists, Indigenous Peoples, policy experts, business leaders and other professionals that represent various conservation-related entities. Purposive sampling was guided by selection criteria that included engagement in activities within the intersection of FLR projects and Indigenous communities, and presence at the WCC. Convenience sampling included invitations to participate in an interview following relevant

interventions during the WCC. All interviews were conducted on-site and lasted approximately 30 minutes each. Interviews were audio-recorded and transcribed verbatim for subsequent analysis.

Table 2.2 Summary of interview participants

Actor category	Number of interviews conducted		Number of participants involved
	Individual	Group	
NGO specialists	3	-	3
Indigenous Peoples' representatives (IR)	3	1 (n = 4)	7
INGO specialists	4	-	4
Government agency representatives	1	1 (n=2)	3
			17

n* refers to the number of participants in the group interview

2.2.2 Analysis

Field notes and interview transcripts were uploaded into NVivo and systematically coded using a combination of theory-guided and open coding processes (Saldana, 2009). Theoretical coding was guided by attention to issues relating to nature and extent of participation in governance across actor categories, how event spaces in term of design and key elements (e.g. invited versus collaborative design, spatial organization of participants and sizes of groups) shape the ability of different actors, especially Indigenous Peoples' representatives, to gain and maintain access to governance processes, and challenges to recognition of Indigenous knowledge. Simultaneously, the analysis included open coding to identify emergent themes not captured by constructs relating to equity and spaces of participation (Mayring, 2014b). Working iteratively with the

initial codes and categories identified through the coding process (Charmaz, 2006), the data were eventually reduced to four central themes identified and described below.

2.3 Characterizing the nature of Indigenous participation and knowledge politics at the 2016 World Conservation Congress

2.3.1 Invited spaces and passive forms of participation

Differences in the designation of roles, time given to make interventions, and the nature of interventions themselves across the different actor categories revealed issues of procedural equity in the design of the WCC. FLR debates occurred primarily in invited spaces as roles such as keynote speakers and special guests are disproportionately held by government agency representatives, INGO and NGO specialists. These roles tend to afford these identified actors more access and power to shape governance, while Indigenous Peoples are systematically limited to passive forms of participation. The type of Indigenous participation observed during the opening ceremony illustrates how invited spaces lead to the relegation of Indigenous perspectives and how power, enabled by unequal access, is disproportionately held by government agency representatives, INGO and NGO specialists. At the opening ceremony, a higher level of audience attentiveness was observed when government representatives and conservationists were delivering their speeches, as evidenced by lack of audience side-conversations in comparison to the Hawaiian Indigenous Peoples' presentation during which audience side-conversations and audience discussions increased. In this way, the audience can be described as mostly engaged in what Bresner, (2010) refers to as exoticization and commodification of indigeneity. Exoticization and commodification of indigeneity is an expression of contemporary tourism, which includes the search for unfamiliar experiences in

pursuit of adventure and interaction with foreign cultures in exploitative ways. Such exploitation tends to occur through the disentanglement of Indigenous cultures and displaying cultural elements without acknowledging and respecting the connections between the displays, the culture and the people. Lending support to this claim, an Indigenous representative (IR) expressed dissatisfaction with how the WCC appears to have marginalized Indigenous representatives in comparison to non-indigenous conservation professionals, such as was the case in the opening ceremony.

We are being invited to collaborate on their project, so I come here. They will always invite Indigenous Peoples, but the Indigenous Peoples are always marginalized and never in the mainstream. The problem is that they still believe more in science and conservation by professionals. [IR. 1]

The IR further noted the significance of the Indigenous Peoples' presentation during the opening ceremony.

In the opening ceremony, you saw the performance? The singing and dancing? This is not just a performance. This is about the deepest connection to your land, oceans and ancestors. You can feel the energy and the power. So, this is a living tradition. [IR. 1]

The importance of the Indigenous presentation, as identified by the IR above agrees with recent documentations of Indigenous presentations. Based on the case of the Progera people of Papua New Guinea, Jacka (2015) noted the powerful nature of Indigenous cultures and how these cultures tend to be misunderstood by contemporary society. The author describes reciprocal relationships between humans and earth as a consistent theme in many Indigenous cultural

activities, such as rituals and highlights the importance of attentiveness to details of displays as indicators of respect and acknowledgement.

A similar display at the opening ceremony of a previous WCC was noted by Campbell & Brosius (2010: p250) who report that “Indigenous Peoples were often present in full traditional dress, marking their presence in visible and often colorful ways. Clearly, part of the WCC is a show, staged to have a particular effect”. Considering that the representation of Indigenous participants as central to a visual experience as opposed to vital contributors to content-related issues at the opening ceremony, Indigenous participation in this aspect of the WCC can be described as placation and activity-specific. Involving Indigenous Peoples in this particular way has political connotations, as well as emphasizes existing power relations amongst the different actor categories (Montana, 2017). Unequal access to governance which emanates from assigning roles that limit Indigenous participation, has been widely shown to have spurred Indigenous campaigns for procedural equity (den Besten et al 2014; McLean 2012; Ruwhiu & Carter 2016). Many of these Indigenous-led campaigns involve self-mobilization or activism, and range from campaigns for inclusion in local and national level governance to advocating for interactive participation in debates that shape policies at the global fora (Cabello & Gilbertson, 2012; Kohl & Bresnahan, 2010; Sunderlin, Hatcher, & Liddle, 2008). Accordingly, Indigenous participation at fora such as the WCC is often viewed by Indigenous Peoples as opportunity to advance the campaign for procedural equity. However, limiting the participation of Indigenous Peoples to placation and activity-specific forms effectively undermines efforts to achieve procedural equity.

Despite the limitations of invited spaces, Indigenous participants often noted that the WCC encouraged Indigenous participation more than other UN forums. This is related to the view that the UN forums tend to focus more on the technical aspects of designing spaces such as availability of conference infrastructure, including transportation and lodging facilities. This occur with less consideration to how these technical aspects may constrain the participation of marginalized actors such as Indigenous peoples (for discussion of Indigenous participation within the UN, see McLean et al., 2012). This is consistent with Paulson et al. (2012), who assert that the WCC has been relatively more successful in creating democratic participation spaces. IRs interviewed at the WCC noted that it has been the continuous self-mobilization efforts of Indigenous Peoples that has contributed to the present level of participation of Indigenous Peoples within the IUCN. One IR argued that the organizational structure of the IUCN affords it the advantage of being able to accomplish the inclusion of Indigenous Peoples beyond consultative and activity-specific participation (which despite this view, appeared to be the hallmark for Indigenous participation at the WCC) in comparison to the UN. That is, the IUCN is comprised of member organizations with many having connections to grass-root initiatives and engagement in community projects (IUCN, 2015). This structure is unlike the UN, which interacts more with state-level institutional entities (UN, 2015). This particular view of the enhanced potential for participation at the WCC appeared to lead to some expectations for interactive participation.

My expectation for this Congress is: how we can go beyond the UN Congress?

Because we know that the format is very different. [The] IUCN is an organization that has members like NGOs and community-based organizations, so I expect that we will have a different experience than the one we have already had at the UN

meetings that is guided by the governments. The civil society [groups] have just 3 minutes to speak at the UN, and they do not talk at negotiations. [IR. 2]

Another interviewee who runs a wildlife conservation NGO, expressed frustration with the continued and systemic lack of Indigenous voices and participation at the WCC

Insufficient! Not enough, I think it's changing, I think the dynamic is drifting, which is great, I am encouraging it, but it needs a kick at the ass, and there is not enough Indigenous Peoples here, because the perspectives of Indigenous Peoples are not heard. [NGO specialist 1]

While interactive participation is viewed as central to procedural equity (Hernández-González & Corral, 2017), and the WCC is espoused by IUCN as a governance platform that aims to ensure active participation of all actors (IUCN, 2015), my findings reveal contradictory understandings across different actors about what constitutes active participation and the extent to which this contributes to procedural equity. These differences and the material effects of different spaces of participation have important implications for access and decision making as further discussed below.

2.3.2 Divided views about the types of participation that support procedural equity

My findings reveal the problematic perception amongst government agency representatives, INGO and NGO specialists that activity-specific participation is the pinnacle of procedural equity. In contrast, IRs contend that activity-specific participation further exacerbates the relegation of Indigenous perspectives in governance, and that interactive participation is essential to achieving procedural equity. These conflicting perspectives were evident in the different ways by which IRs and some NGO specialists working on Indigenous issues, designed spaces of

participation in comparison to other actors at the WCC. FLR sessions organized by the former typically included round table formats and knowledge cafés so as to facilitate interactive participation amongst actors and enhance the likelihood of rapid transition of ordinary conversation to in-depth and insightful dialogue (Brown & Isaacs 2010). These events were often held in smaller capacity rooms (100 or less) and without translation devices, thus reducing the number of participants who were able to participate. Two examples are illustrative: the ‘Indigenous Peoples Traditional Knowledge and the Promise of Sydney’, organized by Asociación SOTZ’IL, an Indigenous group in Guatemala, and held in workshop format, and ‘Indigenous Peoples’ cultural connections to forests: How Indigenous values and health indicators are helping manage invasive species’, a pavilion event (organized around a debate) by IUCN Commission on Ecosystems Management (CEM).

Common to both examples was the prompt arrival by debate participants, attendance of a diverse audience (not solely white conservation professionals as was observed elsewhere), and rooms filled to capacity with standing room only. In both instances the rooms were arranged to facilitate interaction (Brown & Isaacs, 2010), for instance with chairs arranged to create a semi-circle. Indigenous Peoples held prominent roles in these events. The traditional knowledge workshop featured an Indigenous invocation followed by discussion about the significance of the presentation. At the pavilion event, as a sign of acknowledgement that the WCC is taking place in Hawai‘i, the moderator opened the event by asking a native Hawaiian to speak first in a panel of one male and two females. Interactions amongst participants at both events included acknowledgements of different perspectives, including Indigenous knowledge and willingness to engage with diverse perspective in the rooms. Out of all the events that were observed for this

study, this pavilion event was the only event where all participants had the opportunity to signal agreement or disagreement about the outcome document of the event before it was considered final. This process of seeking consensus about an event outcome is illustrative of how different actors understand meaningful participation. Similarly, the collaboration between IUCN CEM and Indigenous Peoples in co-convening this pavilion event appeared to shape other key elements of the event, such as ways by which roles were assigned, including facilitators and the meeting arrangement.

Conversely, the design of FLR sessions organized by government agencies, INGOs and some NGOs included more conventional conference-like presentations with speeches and panel discussions that served to limit Indigenous involvement to activity-specific participation. These “high-level events” were typically held in larger halls or large pavilion spaces with higher room capacity. An example was the session on ‘Traditional Knowledge for Climate Action’ which was organized by the UNDP. This was a discussion session to prepare for Indigenous Peoples participation in the Marrakech Climate Change Convention. The program took place in a room with capacity for 750, which was equipped with media and translation devices. A representative of an INGO moderated the program. The discussion took the form of the delivery of statements, rather than an interactive session, which might have fostered Indigenous participation.

Despite the systematic restriction of Indigenous participation in events such as just described, Indigenous Peoples recognized that such bigger spaces and higher profile events hold potential for Indigenous participation if event organizers are intent on engaging with Indigenous Peoples. Interviews with IRs suggest that Indigenous Peoples see the potential of shaping FLR debates in larger events due to the presence of powerful actors such as governments and big NGOs. One IR

reflected on how Indigenous Peoples often interpret different levels of access to decision-making spaces.

My friend attended his Knowledge Café and said he was somewhat upset that that was the forum they gave him to speak: a small room where there was lot of noise... and they can only talk about one particular thing. These are elders in our community that everyone respects, they are leaders, and here [in the Congress] they have [just] an hour to talk. Sorry, but the space was small. It would have been better if the space were bigger. More people who are outside of that circle could meet. That would have been more valuable.” [IR 3]

On the one hand, this interviewee’s reflection elucidates how by design, Indigenous participants are often confined to activity-specific participation despite claims by IUCN that the WCC is a space to advance procedural equity. Likewise, it reveals an awareness amongst Indigenous Peoples that more powerful actors including government representatives, often trivialize smaller events that are not classified as “high-level”. On the other hand, this interviewee’s reflection further elucidates the difficulty of translating an invited space to a claimed space within an institutional setting such as the WCC. Nonetheless, I recognize that the WCC also serves as a bigger platform within which other extra-institutional spaces can potentially arise (e.g. events organized by IUCN partners during the WCC), with potential for Indigenous participation. An example of such extra-institutional spaces are events designed by NGOs that are highly engaged in grass-root projects (further described below).

I interpret the influence of the design of spaces in the context of FLR debates for Indigenous participation in both material and symbolic ways. Material aspects include the size/capacity,

location and support facilities available with a particular space. Symbolic aspects refer to the ways in which different spaces are perceived to reinforce or transcend prevailing structures of power (e.g. as expressed by the IR above). Both aspects serve to influence procedural equity. For instance, the setting of a room influences the perceived and realized level of significance of an event as well as the perceived extent to which equitable governance might occur within that setting.

This interpretation is supported by others (e.g. Shirk et al. 2012), who similarly found that organizers can directly affect procedural equity depending on how participation is understood and implemented in a designed project. Focusing on people as central to design of spaces includes consideration of the format of events (deciding between conventional deliveries or otherwise), facilities that enable interaction such as translation devices and choosing titles/themes that address emerging issues (example is including keywords such as Indigenous /traditional knowledge).

FLR events organized or co-organized by NGOs that are highly engaged in grass-root projects such as locally led forest restoration initiatives and inclusion of Indigenous groups attracted more diverse participants, as opposed to events organized by other actors such as governments (e.g. the USFS) and platforms intended for multi-stakeholder interactions such as The Forest Dialogue. My findings suggest that such differences in extent of participation is because events organized by the former often involved chants, storytelling and debate formats. In contrast, events organized by the latter, were often attended by an audience of mainly white conservation

professionals and designed with a more conventional conference style of presentation such as individual speeches and panel discussions.

My findings that I describe above demonstrate how the design of WCC limits the participation of Indigenous Peoples to nominal, placation and activity-specific participation. Indigenous Peoples are recognized as a member of IUCN (nominal), but tend not to be meaningfully involved in the generation of knowledge regarding the advancement of conservation science and practice (placation) that took place at the WCC. More fundamentally and concerning, is finding that government agency representatives, INGO and some NGO specialists have limited understanding of what constitutes meaningful participation, as they appear not to recognize that engaging Indigenous peoples within the frame of activity-specific participation is contradictory to procedural equity. This observation links directly with the question posed by Ehn, (2008: p92), in their discussion of the “design of things”. Specifically, “how does a design project and design processes align human and non-human resources to move the object of design forward, to support the emergence, translation and performance of this object?” In the case of this study, the object of design is the Congress objectives. Ehn argues that adequate attention to the notion that people are central to design of spaces will include ensuring that existing power, social and interactive relationships among the different participants are examined and considered in the design of events and mobilized to facilitate interactive participation. These considerations are precursors to ensuring recognition and inclusion of different knowledge forms – including Indigenous knowledge (Schreckenberget al., 2016), thereby enabling the realization of design objectives (Shirk et al., 2012).

2.3.3 Supplementary or fundamental? Contested views about the role of Indigenous knowledge

Across most FLR events and discussions led by government agency representatives, INGO and NGO specialists, Indigenous knowledge was overwhelmingly framed as supplementary to western science. While many of the study participants (across all actor categories) voiced the importance of the active participation of Indigenous Peoples and the need to include Indigenous knowledge, the exclusion of Indigenous Peoples in those conversations, as well as the relegation of Indigenous knowledge below its scientific counterpart persisted. The Knowledge Café titled ‘Integrating traditional knowledge into the Red List Assessments’ illustrates this observation. Despite the linkage between the theme of the event and Indigenous Peoples, active roles in the events were assigned to 15 non-indigenous conservation professionals who were the facilitators of the round tables. A group discussion about how to update the Red List database with available knowledge brought forward a persistent debate in literature (e.g. Benham, 2017 & Weiler, 2009) about the fault-lines concerning the knowledge production for FLR debates, and questions such as ‘What counts as knowledge?’ and ‘Whose knowledge counts?’. In one of the round tables, an IR identified historic disenfranchisement of Indigenous Peoples in conservation debates more broadly, including a disregard of Indigenous knowledge, and lack of trust between governments and Indigenous Peoples as an important issue that requires more attention in conservation debates.

“There is an issue of trust involved. Examples are many cases when local communities do not trust the government/state. And they are not given the responsibility of taking care of their own environment, this leads to the issue of

distrust and difficulty with engaging such traditional knowledge” [IR1_TK in Red List]

One participant in the TK session echoed the sentiment above by highlighting that Indigenous communities in Canada face similar issues mainly because of non-recognition of rights and racism. Another participant added:

“There has to be an acknowledgement that the knowledge is there, and that it is useful for this process. It’s is not appropriate to think let’s just pick this and use it this way, we have to be ready to use it in its own sophisticated way” [Participant 1_TK in Red List]

The importance of the Red List database came up at this juncture. A conservation professional mentioned the need to work with knowledge holders who are aware of local issues to remove outdated information and update the Red List. This was a call to invite Indigenous Peoples to assist with the Red List Assessment.

Cornwall, (2002) argues that this form of invitation has become increasingly common within proposed collaborative projects, through the inclusion of statements such as ‘inviting Indigenous Peoples to add...’, Other scholars have also argued that doing so serves to generate the impression that there is a framework and Indigenous knowledge is supposed to supplement what already exists (Benham, 2017). This interpretation is supported by the discontent expressed by an IR who had previously been quietly observing the discussion.

“I feel like we are talking about Indigenous knowledge like an item that is supplementary. This discussion is about how to incorporate Indigenous

knowledge into the RED list, and not about incorporating science into Traditional Knowledge” [IR 2_TK in Red List]

At this point, the moderator interrupted (as most of the other groups/round tables had completed their discussion) by gesturing for another participant to contribute. Another participant who seemed to agree with the previous comment advised that the responsibility should be given back to the Indigenous Peoples, so they could develop the database. Before this participant could finish, another IR interjected:

“What is database? That is for you professionals and scientists.” [IR 1_TK in Red List]

After the event, a follow-up interview with IR 1 regarding the meaning and reason for the interjection revealed the view that conservation professionals do not understand the robustness of Indigenous knowledge and the connection between Indigenous Peoples and Knowledge.

“The others always talk about Indigenous knowledge (IK) but do not fully understand it. IK is a living thing. Therefore, it will continue to evolve. It is adaptation and innovation. Therefore, it is not only ecological that is useful for IUCN. Also, livelihood – both. Because our ecological knowledge is our livelihood knowledge. Livelihood knowledge is about bio-cultural community and habitat, this is all for wellbeing for all beings around us including all creatures, human beings, environment and ecosystems.” [IR rep 1]

IR 1 viewed common framing of Indigenous knowledge by conservation professionals and experts to be too simplistic, as framings typically ignore the interconnectedness of knowledge with the complete way of life of Indigenous Peoples including values, norms and sites. Such simplistic framings of Indigenous knowledge that IR 1 noted further entrench the privileging of

scientific knowledge over Indigenous knowledge (see Weiler 2009 for a similar account about knowledge hierarchies). The contribution of IR 1 underscores the need to review the oversimplification of Indigenous knowledge as it is commonly understood by scientists and conservation professionals (Obermeister, 2017). Indigenous knowledge is fused with livelihoods and should not be regarded from an ecological point of view alone. Such fragmented evaluation of Indigenous knowledge would be associated with what Nadasdy (1999) refers to as compartmentalization of knowledge and what Agrawal (2002) calls “scientization” of Indigenous knowledge. In line with the argument of Löfmarck & Lidskog (2017), this does not mean that Indigenous knowledge is closed to rigorous analysis, as often implied relative to western science; rather, it means Indigenous knowledge has inherent epistemological differences such as connections between knowledge, the holders, and social and political contexts which need to be considered in the appraisal of Indigenous knowledge.

2.3.4 Recommendations for improved collaborative spaces

Numerous recommendations from Indigenous representatives and NGO specialists working on Indigenous issues for addressing challenges of Indigenous participation and use of Indigenous knowledge in FLR debates were made, and are summarized here. At the heart of the issue are tensions espoused by the ways spaces of participation are designed by powerful actors and the need for those spaces to be more collaborative rather than invited. This point is illustrated by a remark from a participant at the ‘Integrating traditional knowledge into the Red List’ event in response to the goal of the event, which was to deliberate on how to enhance the integration of traditional knowledge in the species assessments carried out for the IUCN Red List.

“It is easy to say that we need to incorporate and acknowledge TK and use it. The issue transcends both Indigenous and other types of institutions. Not just popping in little bit of info here and there, there must be an organic change in the whole process. Building a safe place for the dialogue to happen. ‘How do the Indigenous communities want to do this themselves?’ [Participant 3_TK in Red List]

The remark above highlights the importance of building open and accessible decision-making spaces, where Indigenous Peoples, like other actors, have equal access to participate and drive the governance agenda (Mancheva, 2018).

The event titled ‘Integrating Indigenous cultural values and perspectives into conservation’ further highlights the challenges for Indigenous participation and knowledge. This was a workshop-style event in a 750-person capacity room. The event commenced with an Indigenous chant and was moderated by an Indigenous representative. The event was organized to address a motion that was put forward by a coalition comprising Indigenous groups and organizations with interest in Indigenous issues including the Hawai‘i Conservation Alliance. The focus was to enhance the integration of Indigenous cultures into conservation and increase the role of Indigenous and local communities (Motion 083). In contrast to the TK-Red List event referred to above, dialogue in this session was actively encouraged through the use of facilitators that ensured broader participation in the audience. Participants ultimately identified numerous challenges for Indigenous participation and knowledge, including problematic knowledge definitions, epistemological worldviews, languages and intellectual property rights. Interviews conducted with some of the participants after the event provided insights into the roles of governments in encouraging Indigenous participation in governance. An interview with a NGO

specialist identified governance-related challenges, including models for governance and offered suggestions for governance approaches that would advance Indigenous participation in FLR efforts:

“...Just like the gentleman from Ethiopia mentioned (referring to the above event which we both attended), the project of protecting threatened species should not be a top-down model as is usually the case. But by Indigenous Peoples deciding, because the species matter to them culturally and spiritually.” [NGO specialist 2]

Further, an INGO specialist similarly emphasized the importance of institutional arrangements, including equitable access to decision-making processes and spaces, and recognition and inclusion of Indigenous knowledge, to encourage active participation of Indigenous communities in FLR efforts, and in turn procedural equity:

“So, I think, again, it is kind of the institutional setup from the very beginning that will determine to what extent you are actually dialoging and including Indigenous communities or local communities, all stakeholder groups. That is really key. I think, they should be part of this from the very beginning... and that governments who are actually leading these efforts should really make efforts to be very inclusive.” [INGO specialist 1]

While comments such as the one made above highlight recognition among state and international level actors that FLR interventions are often designed in ways that disenfranchise Indigenous Peoples in planning processes, the ways in which Indigenous participation was organized and structured by government agencies, INGOs and big NGOs, continually served to perpetuate the discounted relevance of Indigenous knowledge in comparison to its scientific counterpart. As a

result of this contradiction, debates about FLR decision-making often occurred either in the presence of Indigenous Peoples as passive participants or in their absence.

The debate session at the ‘working group meeting of Contact group 048’, about the definition of forests, illustrated the above contradiction. Contact group participants comprised primarily of government agencies, INGOs and big NGO representatives, repeatedly identified Indigenous knowledge as important in providing a holistic definition of forests. Yet no Indigenous representative was assigned an active role in the session. Contact group participants disagreed about how primary forests should be defined to capture the various ways by which different actors, including Indigenous Peoples, interact with forest. A different perspective on the definitions could have been received if the space was designed as a collaborative space (Cornwall, 2004).

Overall, the recommendations identified above – building safe spaces for decision-making, equity in knowledge use through recognition and inclusion of Indigenous knowledge, equitable access to decision-making processes and spaces, and deliberative decision-making models as opposed to top-bottom models, are important elements that underpin the design of collaborative spaces and the advancement of procedural equity.

2.4 Conclusion

This study makes visible the ways that prevailing structures of power within the WCC shape access to and the extent of Indigenous participation in global FLR debates. My findings show that the structure of the WCC upheld prevailing power relations amongst actors, specifically in the

context of participation in FLR decision-making. This contributed to unequal access to decision-making processes and spaces, and in turn reinforced hierarchies in different forms of knowledge. More specifically, I find uneven access to decision-making, with powerful actors such as government agency representatives, INGOs and some NGO specialists having higher level of access (e.g. roles such as keynote speakers and special guests are disproportionately held by government agency representatives, INGO and NGO specialists as observed in the opening ceremony). As such, deliberations about the use of Indigenous knowledge in FLR appear to occur mostly in invited spaces where the participation of Indigenous Peoples is systematically limited. Indigenous participation mostly occurred in the form of nominal participation and activity-specific participation (Table 2.1). For example, increased audience side-conversations and audience discussions during IP intervention in the opening ceremony and the perception (paraphrased quote) of IR 1 that the active participation of Indigenous Peoples is not mainstreamed in the WCC). I examined the following aspects of the event: characteristics of the presenters/moderators and audience; observations about extent and nature of participation of Indigenous representatives (either as speakers, commentators or panelists) in comparison to other actors, and perceptions (and observations) and the extent to which Indigenous representatives were able to fulfill their roles. My finding shows that events led and/or co-convened by Indigenous Peoples appear to be closest to spaces that can be characterized as collaborative spaces. For example the ‘Indigenous Peoples Traditional Knowledge and the Promise of Sydney’, organized by Asociación SOTZ’IL, an Indigenous group in Guatemala, and held in workshop format.

More powerful actors, including government agency representatives, INGOs and some NGO specialists tend to hold limited views about what constitutes meaningful participation. In turn, these views influence how these actors design and interact with/within spaces of participation. More specifically, government agency representatives, INGO and some NGO specialists appear to equate meaningful participation of Indigenous Peoples in FLR decision-making with passive forms of participation. This limited perspective on participation further manifests through recommendations for advancing procedural equity that come from the abovementioned actor groups, and which tend to discount Indigenous participation and the relevance of Indigenous knowledge in comparison to its scientific counterparts.

Challenges that inhibit Indigenous participation identified by Indigenous representatives and other actors working on Indigenous issues include the pervasive view of Indigenous knowledge as a supplementary form of knowledge and a limited understanding of the relationship between Indigenous participation and use of Indigenous knowledge (i.e. insufficient considerations to connections between knowledge, knowledge holders and contexts in governance). Moreover, I observed the contradiction in how powerful actors repeatedly identify Indigenous knowledge as important in FLR decision-making, yet these same actors designed decision-making processes/spaces of participation in ways that systematically relegate Indigenous knowledge/peoples to the sidelines. This contradiction has implications for realizing procedural equity in two ways: the first is expressed through lack of understanding linkages between knowledge, participation and procedural equity, thus, influencing the approach adopted for the design of events. This includes decisions about the size/capacity, location and support facilities

available within a particular space. The second is expressed by the ways in which different spaces are perceived by different actors to reinforce or transcend prevailing structures of power.

With the above considerations in mind, I argue that a more holistic view is required in conceptualizing and designing spaces of participation to advance procedural equity in global resource governance. That is, designing participation spaces should not be viewed solely as a technical project (Hernández-González & Corral 2017). Technical aspects such as the presence of tourist attractions, and availability of conference infrastructure, including transportation and lodging facilities, reflect what Ehn refers to as an ‘engineering perspective’ (Ehn 2008). In addition, I suggest that proponents and designers of spaces of participation should consider political and social aspects, such as how to meaningfully acknowledge and give voice to plural values and interests across actor categories. This argument reinforces my position that either by design, omission or negligence, spaces of participation will inspire and shape different forms of participation across and among different actors.

Likewise, my findings lend support for the ‘participatory design of spaces’ as an approach to ensure the utility of spaces in ways that advance procedural equity in global resources governance. By participatory design of spaces, I mean focusing on all participants as the users of a space – not just some of the users or the powerful users. In so doing, all participants have a say in design processes, and importantly, intentional ‘infrastructuring’ strategies (Ehn 2008), such as Indigenous Peoples leading design processes, should be adopted to ensure active participation of less powerful actors. Hence, creating collaborative spaces.

Furthermore, I argue for more nuances in the way that states agencies, INGOs and NGOs define procedural equity in global resources governance. In this sense, I signal the importance of considering the nature of spaces where decision-making processes occur, and in which powerful actors often overlook when designing spaces of participation. This assertion is based on my observations, which show that interactive participation that occurs in a collaborative space, where Indigenous Peoples hold enough power to gain and maintain access to decision-making, and where all actors mutually constitute knowledge, sets condition for equitable FLR decision-making at the global scale. On this note, I propose that procedural equity in relation to participation should be evaluated in relation to *an inclusive decision-making process that takes place in a participatory-designed space*.

Finally, insights from this study implicate an additional set of questions specifically relating to intersectionality and representation that will be important for further advancing understanding about issues of procedural equity in the context of spaces of participation across different scales of resource governance. For Davis (2008), intersectionality refers to “the interaction between gender, race, and other categories of difference in individual lives, social practices, institutional arrangements, and cultural ideologies and the outcomes of these interactions in terms of power” (p: 68). Studies about intersectionality in global resource governance (e.g. in the case of global climate debates) identify paying attention to representation in governance as one of the ways of examining intersections of power at the institutional level (Kaijser & Kronsell 2014). In this study, I recognize that the views of actors about the extent to which a space is supportive of their participation partly depends on how they are represented within the space and their views about power relations among all represented actors. In this sense, some actors may not view their

representation as an adequate form of participation. Based on the analysis in this chapter and this description of intersectionality and representation above, I ask: How does the design of spaces and processes of forest decision-making shape participation across gender and racial lines? To what extent do different actor groups view their representation as participation (or their representatives as ‘active participants’) at various scales of governance? And how does the often limited or contradictory understanding of procedural equity by state actors shape the inclusion of non-state actors in forest decision-making? Examining these, and related questions, will likely reveal additional insights for how to conceptualize and operationalize participation of actors working across different scales of governance in ways that advance deliberative decision-making processes and procedural equity.

Chapter 3: At the national scale

Post-1990 history of water governance policies in Bolivia and implications for community participation

3.1 Introduction

3.1.1 A conundrum: policy responses for inadequate community access to water

Developing policy responses to address the concern of inadequate community access to water remains a governance challenge globally (Kunapo *et al.* 2018). Known difficulties in addressing this challenge relate to insufficient consideration of the connections between different land management (e.g. agriculture and forests) and water availability (Kreye *et al.* 2016) objectives. For instance, forests use water to generate biomass, store water in soils and transport water through evapotranspiration and subsequent precipitation (FAO, 2016). Most sustainable and quality fresh water sources in the world originate from forest ecosystems (e.g. Ellison *et al.*, 2017; Eriksson *et al.*, 2018; Lim *et al.*, 2019). It is not surprising then that emerging policy debates, including within the Intergovernmental Panel on Climate Change (IPCC), emphasize the need for holistic policy responses that capture interactions between forests, agricultural lands and water ecosystem services (IPCC 2014). This recognition is reflected in a shift towards water governance approaches that focus on promoting land-use policies with water-related objectives (e.g. integrated water governance approach (Sparks 2018)). Yet, achieving adequate community access to water is still a problem in many parts of the world, in particular, Latin America (Hailu, Osorio and Tsukada, 2012).

Latin America has an estimated 49% forest cover and 82% of rural poor (people living on <1.25 USD/day) live in forested landscapes (FAO 2018). Likewise, Latin America receives about 29%

of global precipitation, and an estimated 8.76% (81.96 million ha) of forested landscapes in the region is devoted to water conservation (FAO 2017b). A study conducted in Costa Rica, Ecuador and Argentina, by Mintegui Aguirre *et al.* (2014), demonstrated decreasing water ecosystem services due to conversion of forests around catchment areas to agro-pastoral land. Similarly, the inability of forests to support water provision for communities in Brazil is connected to forest and agricultural policies that do not consider water-related objectives (Ferraz *et al.* 2013). On the one hand, in Latin America, policies tend to poorly recognize roles of forests in water recycling and redistribution (FAO 2016). On the other hand, in contexts where this recognition exists, policy actions including interventions that target inadequate community access to water, are confronted with two central issues. Firstly is the prevalence of ‘sectoral thinking’ (FAO 2018). Following the FAO, ‘sectoral thinking’ is defined here as the tendency to develop policies or policy actions that fail to acknowledge relationships between forest and agriculture land uses and water availability for livelihood sustenance. Sectoral thinking is commonplace within sector-based ministries and agencies, which have different procedures for resource allocation and accountability. Sectoral thinking makes intersectoral coordination required for policy coherence difficult to accomplish (Dourojeanni 2001). Secondly are issues related to the procedural dimension of equity, specifically as they are expressed in (limited) community participation in decision-making (Bétrisey *et al.*, 2018). Procedural dimensions refer to lack of meaningful participation of non-state actors, including Indigenous Peoples in policies (Martin *et al.* 2014). The influence and expression of the two issues are particularly acute in Bolivia, where connections between different land management (e.g. agriculture and forests) and water availability objectives, – hereafter referred to as the ‘Land use -Water’ (LuW) nexus, are recognized to varying extents in policy.

3.1.2 The land use – water nexus in Bolivia

Bolivia is in the southwestern part of the Amazon Basin with a land area of 1,098,000 square kilometers (Killeen et al., 2007). The country has different ecological regions, including the Andes Mountains, Amazon Basin, Pantanal, Chiquitano, Chaco and Cerrado (Robertson & Wunder, 2005) as well as two primary ecological transition zones – the highlands and lowlands (Killeen et al., 2007). The lowland region contains 80% of Bolivian forests and have been identified among the top 10 conservation priorities in the world (Killeen et al., 2007). The forests in the lowland region are mostly found in the country's north east, in the lowland areas of the departments of Cochabamba and La Paz and in the departments of Santa Cruz, Beni, and Pando (Killeen et al., 2008). In the lowland region, the forests can be further characterized based on five major biotypes: “the humid lowland forests of the Amazon, the seasonally flooded plains and savannah forests of Beni, the semi-deciduous forests of Chiquitania, the dry forests of Chaco region, and the humid-forest types found on the cejas de la selva or the fringe of the hills along the highlands”(Pool, Catterson, Molinos, & Randall, 2002: p54).

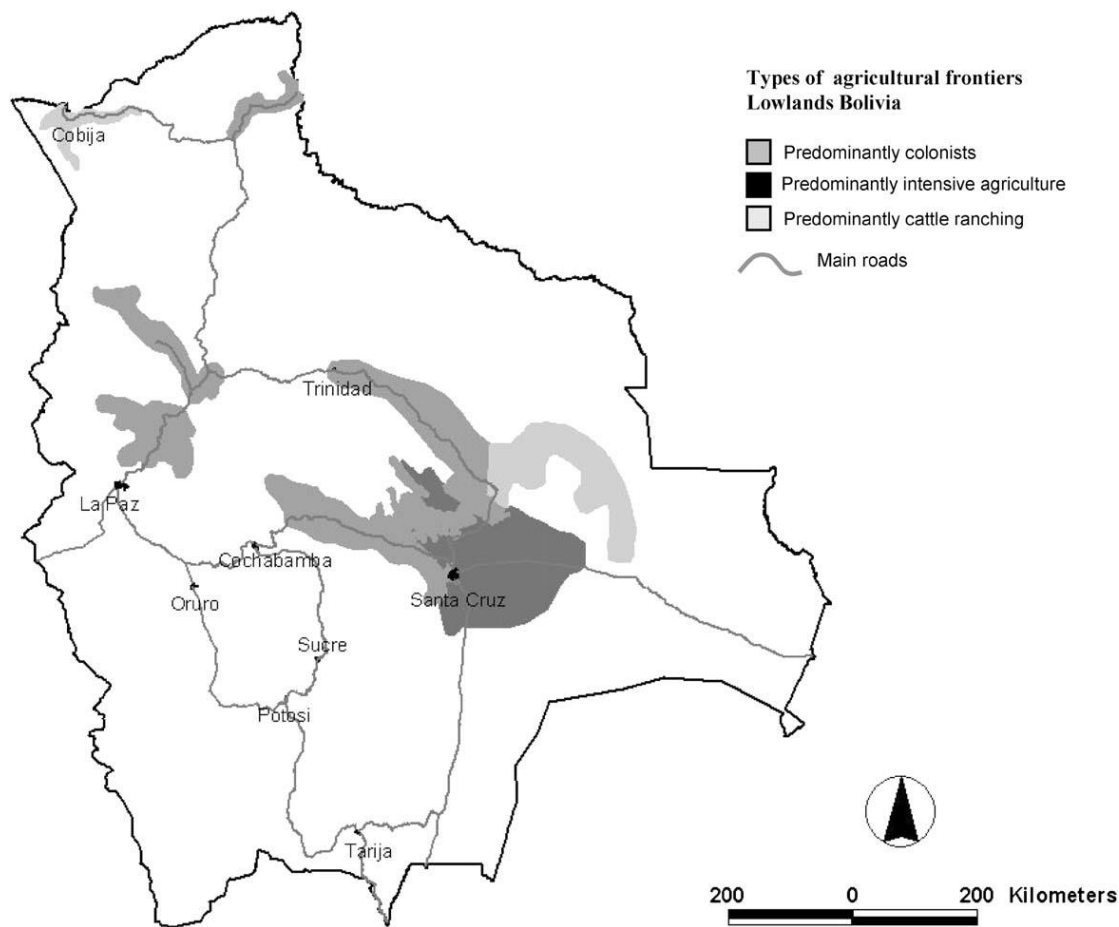
In addition to the ecological and topographical variation summarized above, Bolivia is also characterized by climatic and hydrological variability (Rivera et al., 2019). This result in extreme temperature and precipitations variations. The highland is characterized with low temperatures while the lowlands is warmer with higher precipitations (Escurra et al., 2014). The average annual precipitation in the Andean region is around 500 mm/year, the Sub-Andean region is 950 mm/year, and the Plains region is close to 1,870 mm/ year (Escurra et al., 2014).

Some scholars (e.g. Escurra et al., 2014; Killeen et al., 2008; Rivera et al., 2019; Steininger et al., 2002) have examined trends of climatic and hydrological variability in Bolivia. A common concern that was identified is that Bolivia will increasingly face water deficits due to rapidly changing climatic scenarios. For example, increasing loss of forest cover significantly reduced precipitation, especially in the Andean region, with communities becoming more vulnerable to drought in the rainy and dry seasons (Escurra et al., 2014). To different degrees, communities in Bolivia are confronted with inadequate access to water.

The challenge of inadequate community access to water in Bolivia has been widely investigated (e.g. Nickson and Vargas, 2002; FCPF, 2008b; Berg and Vargas, 2009; Morgan, 2011; Coleman, 2012; Marston, 2015). Across this body of literature, inadequate access to water is especially common in rural areas (Coleman, 2012). In urban areas, community access is better but varies across cities. For example, Santa Cruz de la Sierra has a 24-hour water supply, while Oruro and Potosi have between 4-5 hours/day, and Cochabamba's water situation is worse, with inconsistent water service (Nickson and Vargas 2002). Relatively, more efforts have focused on enacting policies than policy implementation (Berg and Vargas, 2009).

Additionally, several empirical studies have established connections between forest loss, agricultural practices, including cattle ranching and water access in the Bolivian context (e.g. Robertson and Wunder, 2005; Asquith *et al*, 2008; Morgan, 2011; Müller *et al*, 2014; Bétrisey *et al*, 2016; Bottazzi *et al.*, 2018). Bolivia has an estimated 50% forest cover and 250,000 ha are lost annually, primarily due to intensive agricultural expansion in Santa Cruz department (Figure

3.1). The expansion result from the migration of agriculturists to lowlands to avoid the highland drought (Nachmany et al., 2015).



Source: (Pacheco, 2006: p214)

Figure 3.1 Agricultural expansion in Bolivia

Common activities of agriculturists include farming and livestock grazing, especially noticeable in Santa Cruz and Beni departments due to soybean and cattle production (Gasparri & le Polain de Waroux, 2015). The area of agricultural lands equipped with irrigation systems in Bolivia is estimated to be 128,000 ha (Escurra et al., 2014). Community households individually construct most of the irrigation systems with their own funds (Seemann, 2016). Irrigation accounts for

85% – 90% of water usage, out of which 65% is irrigated from rivers (Escurra et al., 2014). As such, agricultural practices also put pressure on water availability. As the relationships between forests, agriculture and water availability are interconnected (FAO 2018) and in the Bolivia case (see Figure 1), shortage in water also results in reduced agricultural production. In some cases, this has led to the expansion of grazing lands to watershed areas which in turn impacts water availability (Bottazzi et al., 2018). In Bolivia, extreme events such as drought resulted in an estimated \$250 million (USD) loss in the agriculture sector between 2005 and 2006 (FCPF 2008).

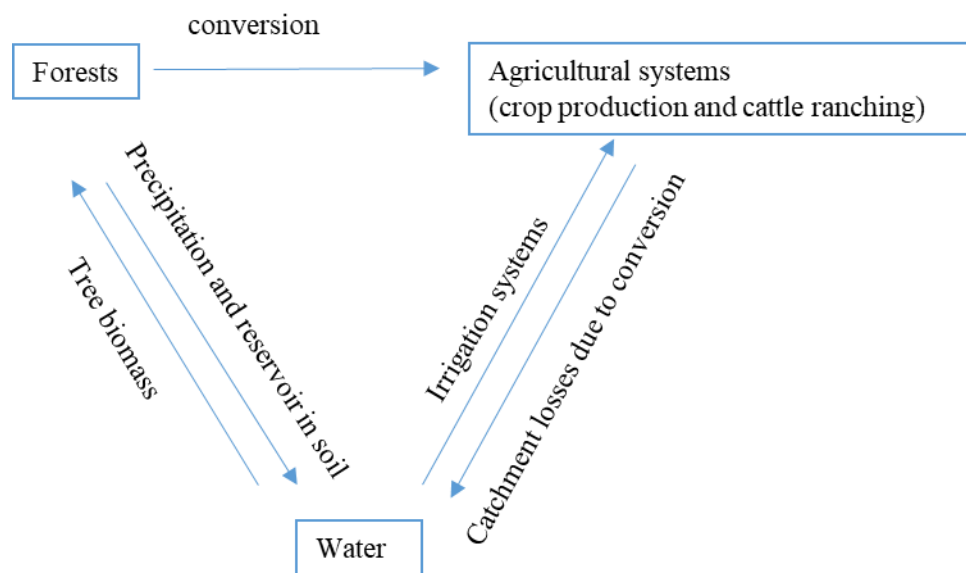


Figure 3.2 Key connections between forests, agriculture and water in Bolivia

Despite the abundance of interconnectedness at the land use-water nexus in Bolivia, as highlighted above, there remain persistent difficulties for leveraging enacted policies at the LuW nexus for improving community access to water. Recent studies linked these difficulties to limited intersectoral coordination (e.g. Nickson and Vargas 2002), inadequate capital

investments (Hailu et al., 2012), and insufficient community participation in policy making (e.g. Asquith *et al.* 2008). In response to these shortcomings, policies at the LuW nexus have always undergone reforms (Berg & Vargas, 2009). As an illustration, between 1970 and 1990, the state and civil societies tried on several occasions to update and adapt the Water Law, including attempts in 1970, 1973, 1975, 1983 and 1987 (Asquith and Vargas, 2007). Yet, inadequate community access to water persists.

Payment for ecosystem services is a market based approach that took root in Bolivia as part of governance efforts to tackle the challenges identified above (Asquith et al., 2008). The prevailing expectation among policy-makers was that PES can help to foster needed cooperation across sectors (Morgan, 2011), provide investment options through incentives (Bottazzi et al., 2018), and enhance community participation in water governance (Lalander & Altman, 2003). However, the extent to which PES is able to tackle the challenges identified above remains unclear. Regarding harnessing cooperation across sectors, the problem is illustrated by a statement of the president of FEDECOR (an organization focused on water rights in Bolivia);

“There was no possibility to solve water problems in a multisectoral framework; therefore, we took action ourselves. Since we cannot convince the others, we aimed to put our own rules and norms within the game. That is the reason why we developed a comprehensive legal proposal to mark our own playing field (Seemann, 2016: p 133).”

Moreover, persisting inadequate capital investment relates to reduction in direct government funding for rural development banks and under-funding credit/subsidy mechanisms that could support interventions to improve water availability (Liverman & Vilas, 2006). Additionally, how

PES shapes community participation in water governance in Bolivia is widely debated (e.g. Robertson and Wunder, 2005; Bétrisey, Mager and Rist, 2016). Civil society groups including Indigenous Peoples have criticized the PES approach as being unable to ensure sufficient participation for local communities in decision-making (Robertson and Wunder, 2005). Difficulties with policy responses, including PES governance approach further indicate the need to examine broader policy framework that shape water governance in Bolivia.

Prior to the early 1990's, policy efforts at the LuW nexus were characterized by the establishment of independent regulatory agencies to implement public policies, persistence of weak regulatory systems, and failed policy reform of the 1980's (Asquith et al., 2008; Berg & Vargas, 2009; Seemann, 2016). What remains less known is how post-1990 policy efforts including key policies that shape water governance, are shaping emerging policies at the LuW nexus and the challenges identified above (re: community participation in water decision-making and intersectional coordination).

Previous scholarship on this topic includes Müller *et al.* (2014), who characterized post-1990 changes in governance in the context of land use in Bolivia into two distinct policy regimes, where policy regimes were defined as a set of policy instruments, such as legislation, for addressing policy problems (May and Jochim 2013). The policy regimes used by Müller *et al.* (2014) are i) policy development in the 1990's, which the authors referred to as neoliberal policy regime and ii) policy development that commenced during the government of Evo Morales in 2006, named the "Living Well" policy regime. For these time periods, Müller *et al.* (2014) traced involved actors, objectives and policy instruments used. This chapter builds on this previous

work by including two additional governance elements not previously considered: community participation and attributes of intersectoral coordination. For community participation, I paid attention to declarations in policies that seek to advance procedural (i.e. participation of Indigenous Peoples and local communities in decision-making) dimension of equity. For attributes of intersectoral coordination, I paid attention to the form and extent of recognition of interactions between land use for forestry and agriculture, water availability and livelihoods sustenance, and declarations in policies that set out to bridge agencies through coordinated engagements. This analytical chapter is further distinguished from Müller *et al.* (2014) in that while they focused on governance in land-use broadly, I examined policies at the LuW nexus (i.e. policies with water-related objectives across forest, agriculture and water governance) and how these policies shape community participation and interaction across sectors, agencies and actors in water governance.

Considering the foregoing, I analyzed key policies with water-related objectives across forest, agriculture and water governance in Bolivia, starting from 1990 to identify changes and drivers of change in governance over time. I examined the following elements: actors involved (those participating and those making decisions), stated objectives, characteristics of community participation, and attributes of intersectoral coordination. In so doing, this chapter addresses two questions:

1. In what ways have post-1990 policies at the LuW nexus changed over time, and what drivers contributed to change where it is observed?

2. How have past policies shaped current water governance, in terms of advancing community participation in policies, and incorporation of interactions between different forms of land uses, water availability and livelihoods sustenance?

3.2 Methodology

3.2.1 Approach and data collection

To address these questions of policy change over time, and the implications of policy changes for communities, I adopted a qualitative approach (Creswell 2014). This study is based on data obtained from a systematic analysis of policy documents (e.g. forest, agriculture and water legislation), supplemented by interviews with key specialists who have deep and historical knowledge about emerging water governance approaches in Bolivia. I collected the data during 8-months of extended field research between 2017 and 2018 in Bolivia. I collaborated with Fundacion Natura Bolivia (FNB), an NGO that works on watershed conservation and rural development in Bolivia. FNB provided field related support and advice, including access to key specialists and policy documents that would have been difficult to access otherwise.

I used a purposeful sampling strategy based on the need to identify policy documents that provide information related to the objective of this study (Patton 2002). The policy documents considered in this study are policies with water-related objectives across forests, agriculture and water governance. Other criteria used include availability in English or Spanish language (n = 33, Appendix D). These documents included government policies and NGO project-related documents regarding assessments of water resource issues in Bolivia, from 1990 to 2013. To identify the documents, I searched platforms such as the Web of Science and Google advanced search tools using keyword-driven approach. Combinations of related keywords were applied.

These include “water scarcity”, “water policy”, “forest policy”, “watershed management”, “watershed policy”, “agricultural policy”, “water conflicts” and “forest and water law”, all in context of “Bolivia”. Furthermore, I conducted targeted search of policy documents that have been listed as resource materials for resource governance in Bolivia. For example, I reviewed my search result with referenced policy documents that the UN-REDD identifies in the governance contexts for forest and land-use in Bolivia (<https://www.unredd.net/regions-and-countries/latin-america-and-the-caribbean/bolivia-plurinational-state-of.html>). A total number of 1150 pages of policy documents were analyzed. In addition to these primary sources, a close reading of scholarly literature on water governance policies in Bolivia provided additional context.

Document analysis was supplemented with semi-structured interviews. The number of individuals available to be interviewed in this context was relatively small, in part due to the politically sensitive nature² of the topic (four NGO experts, one specialist from a donor organization and one state agency representative, n=6). Interviewees included individuals with: knowledge about key government initiatives for water governance (e.g. the Joint Mitigation and Adaptation Mechanism (JMAM), and with over 25 years of experience about legislative efforts related to water governance issues in Bolivia. Interviews covered topics relating to views about drivers of change of water governance and policies in Bolivia and the extent to which these policies include community participation and emerging interventions for water governance

² Politically sensitive nature of natural resources governance issues in Bolivia has also been reported by previous studies (e.g. Arsel *et al.* 2014). In this case, it is partly due to varying views among Bolivians about emerging protectionist approach to governance and how funds for environmental interventions are handled by the state.

(see interview guide in Appendix C). The average duration for the interviews was 30 minutes.

Interviews were transcribed and coded in NVivo.

3.2.2 Analysis

Analysis of documents and interview transcripts followed a deductive approach (Mayring 2014). For the document analysis, I conducted directed content analysis to identify a pre-determined set of key governance attributes (as outlined above) from the data (involved actors, stated objectives, characteristics of community participation and attributes of intersectoral coordination). To facilitate the identification of key governance attributes I applied codes, which are key words based on the conceptual framing of this study. These codes are in form of English and Spanish words or string of words. For example, in the context of identifying characteristics of community participation, I traced policy statements about Indigenous Peoples or local communities through a line-by-line search of each document. I captured statements that contain these codes “Indigenous communities” “Indigenous people”, “Citizen participation” etc.(in English) and “comunidades tradiocionales”, “pueblos indígenas”, campesinos etc. (in Spanish). These statements were further examined and categorised into themes following the key governance attributes that I seek to understand. A summary of the expression of this data across 23 key policies is provide in Table 3.1 (1990 - 2005) and Table 3.2 (2006 - 2013). Thematic analysis was used to identify themes in the interviews, as they related to views about drivers of policy change and the participation of non-state actors in emerging water governance efforts. Thematic analysis enabled triangulation with the document data to enhance overall verification (Maxwell 2012, Creswell 2014). All analysis was conducting in Nvivo.

As a B-level speaker of Spanish, I acknowledge that my analysis of policy documents in Spanish is open to potential translation effects including errors in translation. To mitigate this, I applied verification strategies, including triangulation – in terms of coherence and alignment - with interview and participant observation data. As well as member checking with key collaborators. While I am confident that these strategies uphold the credibility of the claims made and conclusions drawn, future research, conducted with higher language skill (preferably by a Bolivian) would enable a deeper extension of this work, beyond what was possible within my research context and considering my positionality.

This chapter proceeds from here as follows: first, I examine and discuss post-1990 policies at the LuW nexus, in terms of water-related objectives sought through key policies, the key actors involved, community participation in policies in light of procedural dimension of equity, and attributes of intersectoral coordination. Subsequently, I discuss the implications of identified policy change, and drivers on current water governance by identifying key challenges that have persisted over time, and the water governance options that emerged in response to the identified challenges. I conclude with a summary of insights provided by my analysis for consideration in advancing a sustainable future for water governance in Bolivia.

3.3 Two distinct policy regimes for water governance in Bolivia

Through the analysis, I characterize key policies at the LuW nexus, following the two policy regimes identified by Müller *et al.* (2014): the neoliberal policy regime (1990 to 2005) and the Living Well policy regime (2006 – 2013). I describe how the characteristics of these periods

were reflected in enacted key policies at the LuW nexus (by tracing involved actors, objectives sought, community participation and attributes of intersectoral coordination).

3.3.1 The neoliberal policy regime (1990 – 2005)

3.3.1.1 *Actors, objectives and legislation*

The neoliberal policy regime commenced with failed efforts towards policy reform in the 1980's. The policy reform in the 1980's was characterized by policy development, such as the New Economic Policy (NEP) that led to major land-use changes in Bolivia. For example, agrarian practices in the lowlands transitioned from small scale to large scale, primarily to meet the demand of international markets, as seen in the case of soybean. Pacheco (2006) highlights that even though the policy reforms in the 1980's encouraged foreign investment and agricultural growth, it also accelerated deforestation rate due to increased migration of agriculturists to the lowlands in search of more arable land. The failure of the 1980's policy reform and implications on livelihoods and environment was widely documented (e.g. Lalander and Altman 2003, Pacheco 2004).

Beginning in the 1990's, a series of new policies were enacted by the state. On the one hand, these policies focused on establishing state ownership (Table 3.1). On the other hand, these policies made the neoliberal policy regime become increasingly characterized by the dominance of international and private actors in policy and the transformation of water to a commodity (Morgan, 2011). In 1993 the government of Gonzalo Sánchez de Lozada introduced the 'Plan for All' policy approach, which has the goal of privatizing all publicly owned companies, with the exception of the mining sector, and to reduce state-citizen relations (Coleman 2012). In the

context of water governance, this policy approach further opened the economy to foreign capital investments, thereby increasing the potential role and influence of international actors in policies, including the privatization of water services. The System of Sectoral Regulations -SIRESE (Law 1600) and Regulation for Institutional Organization and Concessions of the Water Sector exemplify the agenda of 'Plan for All'. These two policies highlight active roles of international actors in water governance and their protection by law.

The main objectives of key policies during the neoliberal policy regime include declarations to i) assert state control (e.g. water as a state property as illustrated in Law 1333), ii) encourage procedural equity in water access and decision-making (e.g. empowering non-state actors and agro-environmental court involvement, as illustrated in Law 2029 and the 1994 constitution respectively) and iii) regulate institutions with water-related objectives (e.g. DS 24781 and DS 25158). At the peak of the neoliberal policy reform, the Bolivian state ultimately transformed all public goods, including forests and water to commodities (Liverman and Vilas, 2006: p 339 and Coleman, 2012).

Table 3.1 provides a summary of the key policies with water-related objectives, actors who were instrumental to shaping the development of the policies, and attributes of the policies- with regard to community participation and the degree of intersectoral coordination for the period between 1990 and 2005.

Table 3.1 Key policies at the LuW nexus during the neoliberal regime (1990 – 2005)

Year	Key policies	Key features and objectives related to water governance	Key actors involved in development of policies	Community participation (expression of procedural equity dimension)	Attributes of intersectoral coordination
1992	Environmental Law (Law 1333)	<p>Established that water is a state property and that water protection and conservation is the duty of both the state and citizens.</p> <p>Indicated that the state will promote the planning and integral use of water for the benefit of citizens, while ensuring continuous availability of water and prioritizing actions, in order to guarantee drinking water for the entire population.</p>	State.	Promised to create mechanisms and procedures to guarantee procedural equity, by encouraging participation of traditional communities and Indigenous Peoples.	i) Evidence of overlaps in responsibilities amongst sectors were widely reported. For example, World Bank (2006) indicate that Law 1551 and Law
1992	National Regulation for Water and Sanitation Services	Declared state-ownership of all natural resources including water.	State (via the Department of Basic Water and Sanitation).	Declarations have negative implications on equity (e.g. water concessionaires were empowered to control access (Article 63), which is in opposition to traditional water governance approach).	2028 contributed to institutional conflicts and responsibility overlaps. ii) Contradictions between promotion of inter-agency and multi-

1994	The Constitution	<p>Declared that all citizens have the right to equitable access to basic drinking water services.</p> <p>Empowered agro-environmental court to make decisions about lawsuits related to water mismanagement</p>	State.	Contains declarations that relate to both procedural and dimension of participation. That is, declarations for equity in access and procedures for protecting rights.	sector cooperation to attain improved water access (e.g. the 1994 Constitution) and declarations that favor approaches to water governance
1994	Popular Participation Law (Law 1551)	<p>Announced the decentralization of natural resources governance including water, to the municipality level.</p> <p>Created 311 local governments and allocated 20% of national income to their jurisdictions for facilitating natural resource governance.</p> <p>Made municipalities responsible for water governance systems.</p>	State (via the Departmental Governments - Prefectures and Municipalities).	The law set out to create territorial units to promote procedural equity through improved interactions between community-municipality level actors.	promoted by private and international actors over traditional governance approach in communities (e.g. 1999 Water Service Law).
1994	System of Sectoral Regulations - SIRESE (Law 1600)	Established procedures to regulate and monitor activities of the water sector, to ensure that activities related to water use, provision and conservation operate efficiently, contributing to the development	State.	Contains declarations that recognize procedural equity for communities including protection of	

		<p>of the national economy, and ensuring broad community access the services.</p> <p>Declared that all actors such as users, water companies and other regulated entities will enjoy the protection provided law in an effective manner.</p>		<p>rights for community access.</p>	
1996	Forestry Law (Law 1700)	<p>Aimed to protect and improve water governance.</p> <p>Aimed to facilitate access to forest benefits under strict adherence to sustainability standards, and promote knowledge and awareness of responsible water governance among Bolivians.</p>	<p>State (via the Ministry of Sustainable Development);</p> <p>BOLFOR/USAID;</p> <p>Private sector; NGOs;</p> <p>Indigenous groups (e.g. Confederation of Indigenous People of Eastern Bolivia (CIDOB)).</p>	<p>The State assigned forest governance roles to non-state actors and granted citizens user rights to forests on public and private lands.</p>	
1996	The Agrarian Reform Service	<p>Aimed to solve ambiguity in land rights by improving land tenure issues and land access regulations (enacted parallel to the forest law 1700).</p>	<p>State (via National Institute of Agrarian Reform-INRA);</p>	<p>The law recognized Indigenous Peoples' rights to participate in land</p>	

	Law/INRA (Law 1715)	Defined a type of property right known as a Tierra Comunitaria de Origen (TCO) – that is, property rights over traditional territories, including forests and watersheds.	BOLFOR/USAID; World Bank; Private sector; NGOs.	decision-making (procedural dimension) as well as tenure rights and ownership to promote land access (distributive dimension).	
1997	Regulation of Protected Areas (DS 24781)	Aimed to regulate the system of protected areas, including the creation of the National System of Protected Areas (SNAP - Spanish acronym) to promote integrated conservation of natural resources.	State.	Limited recognition of community participation.	
1997	Regulation for Institutional Organization and Concessions of the Water Sector	Established procedure for awarding concessions to private sectors for the purpose of encouraging investments in water governance. Spelled out the specific functions of the office of water regulations.	State, Private sector (mostly international actors e.g. Suez); Water Regulatory Office (SISAB).	Private sectors appear to be more empowered with implications on distributive equity (e.g. limited access for communities).	
1998	Regulation of Protected Areas (DS 25158)	Decreed the National Service of Protected Areas (SERNAP - Spanish acronym) as the entity responsible for administering the SNAP, with technical and administrative autonomy.	State (via SERNAP); International organization funding agencies (e.g. GEF)	The identified roles of SERNAP include promotion of community participation (procedural	

				equity) in governance for protected areas.	
1999	The Municipality Law (Law 2028)	Empowered municipality government to directly execute the provision of water services, in accordance with the Municipal Development Plan, following the guidelines specified in national and sectoral laws.	State	Set out to boost both procedural and distributive equity, through enhanced interaction between communities and municipalities.	
1999	Water Service Law/The Sectoral Institutional Framework Law (Law 2029)	Established the rules that regulate the provision and use of the drinking water and sanitation services, and the institutional framework that governs them.	State (via ministries such as the Ministry of Sustainable Development and Planning); Private sector concessionaires e.g Aguas del Tunari; GIZ	Participation of non-state actors was in favor of private sector with limited access for community participation.	
2000	Water and Sanitation Service Law (Law 2066)	Same with Law 2029 – but with a focus on democratic decision-making process.	Comité de Gestión Integral del Agua en Bolivia (CGIAB);		

		Law 2066 (relates to drinking water) underwent continuous elaboration which birthed Law 2878 (irrigation, farming and forestry).	Bolivian govt./Inter-Institutional Water Council (CONIAG);		
2004	The Irrigation Act (Law 2878)	<p>Aimed to establish programs including watershed approach, to ensure sustainable quantity and quality of water for agriculture among the different users.</p> <p>Issued water- use rights to communities (Indigenous, peasants etc.) as a collective, rather than individuals, which guarantees water for multiple uses including domestic uses and irrigation.</p>	Inter-American Development Bank- IADB; GIZ; the Swiss government's Development Department.	Recognized mechanisms for consultation with potential communities and those who might be affected by policy program (procedural dimension).	

During the neoliberal era, key policies identify the Bolivian government, through various offices and agencies, as the key actor in policy development (Table 3.1). These key policies (e.g. Law 2029 and DS 25158) also highlighted opportunities for international actors to shape how policies interventions are carried out. For example, the roles of private water industries are highlighted in Law 2029 and DS 25158 (Table 3.1). International actors appeared to influence policy agendas through investments in projects and sending experts to oversee them. For example, the Bolivia Sustainable Forest Management (BOLFOR) project (Chemonics International Inc. 2004). The BOLFOR project was an influential policy intervention that shaped approaches to natural resource governance in Bolivia during this era. The project was conceived to influence governance across forest, agriculture and water i.e. policies at the LuW nexus. It led to the development of key policies and illustrated forms of interactions that ensued among actors and agencies in this era in Bolivia. Another example is the Eastern Lowland project (Müller *et al.* 2014). The BOLFOR project resulted from a partnership between the Bolivian government and the U.S. Agency for International Development (USAID) and the Eastern Lowland project was implemented with support from the World Bank. These two projects play key roles in the development of the Forestry Law 1700 and the Agrarian Reform Service Law/INRA (Law 1715) that were both enacted in 1996 (Pacheco, 2004).

In 1994, the implementation of the BOLFOR project commenced. The BOLFOR project sought to support sustainable forest practices, in terms of increasing certified natural forests in Bolivia, and promoting significant forest policy change, including indications for integrated watershed management (USAID 2011). The involvement of the BOLFOR team in driving policy

interventions, such as forest conservation programs, contributed to the promulgation of Forestry Law 1700. In 1995, the World Bank supported a land administration project in regularizing land tenure issues. The land administration project and the involvement of the World Bank facilitated the approval of the Agrarian Reform Service Law/INRA (Law 1715).

International actors continually played active roles in driving the development of policies during this era. In addition to these actors being the primary source of investments that resulted in the development of policies like Law 1700 and 1715., these policies appeared to favor the participation of international actors in decision-making. This is evidenced by policy statements that sought to empower them to manage and control community access to water. Examples include Law 2029, which promoted the involvement of international and private corporations in water governance (Table 3.1). Debates about if and the extent to which the involvement of international actors (e.g. donors and international water corporations) shaped issues of procedural equity during this era of Bolivian water governance has been widely examined (e.g. Berg & Vargas, 2009; Hailu *et al.*, 2012; Marston, 2015; Morgan, 2011; Nickson & Vargas, 2002). Nickson & Vargas, (2002) assert that the emergence of international actors in Bolivian water governance was strongly promoted by international financial institutions/donors as a “way to improve the dismal performance of state-owned water utilities” (p: 99). During this era, an average of US\$ 80 million per year was invested in water policy reforms and interventions. An estimated 65% of the total investment comes from international cooperation through credits and donations (Berg & Vargas, 2009). In addition, the influence of international actors was illustrated in the case of some international actors (e.g. large-scale landowners from Brazil) that were reportedly taking advantage of the incomplete process of recognize indigenous territorial and

land tenure rights through the Territorio Communal Originario (TCO) program (Pacheco, 2004; Valdivia, 2010). There were cases of colonists (e.g. large-scale cattle ranchers) encroaching indigenous occupied areas in Monte Verde, department of Santa Cruz (Pacheco, 2004). “In some instances colonies are planned by governments and international agencies” (Killeen *et al.*, 2008: p1).

As highlighted above, due to the ability of international actors to mobilize investments, they tended to be able to shape water governance in ways that result in equity issues. Furthermore, in accordance to the neoliberal agenda of the state, the state adopted approaches that appeared to promote financial and economic efficiency over social and environmental considerations (Liverman and Vilas 2006). Examples include a Payment for Ecosystem Service (PES) approach that was adopted by the state. PES refers to market-based approaches that involve incentivizing land managers to engage in alternative land-use activities, which has the goal of enhancing desired ecosystem service provision (Farley and Costanza 2010).

In Bolivia, a PES approach that encourages foreign investments and creates financial returns for engaging in activities that result in environmental protection was introduced by the state.

Examples include the Noel Kempff Climate Action Project (NKCAP) that started in 1997 as one of the first pilot carbon-protection PES initiatives. American Electric Power, PacifiCorp and British Petroleum were the three main investors of the project (Robertson and Wunder 2005).

Some of the investments were used to secure the legal establishment of the TCO for the Paragua Community, following provision that enabled communities to obtain land property rights (including land-based resources such as watersheds) by Law 1715 (Table 3.1). However, there

was widespread dissatisfaction amongst community groups regarding the impact of this PES approach on procedural and distributive equity. Regarding the NKCAP project, Asquith *et al.* (2002) indicate that civil groups such as Indigenous Peoples were excluded in the design of the project, leading to mistrust and resentment in affected communities. An interview with a state agency representative captures this dissatisfaction with PES in Bolivia;

“Bolivia sees the payment or compensation for environmental services as commercializing the functions or services of the environment. PES is not right.

What we want is promoting rural economic development by utilizing resources in harmony with nature.” State Rep.

Previous studies into PES approaches in Bolivia document resistance of civil groups, mainly Indigenous Peoples, who view a PES approach as a neoliberal conservation agenda (e.g. Cabello and Gilbertson 2012). More specifically, a common critique of the PES approach to water governance relates to a prevailing perception among Indigenous Peoples that PES tend to reinforce insufficient community participation in decision-making. This has led to water related conflicts, such as in Cochabamba and El Alto (discussed further below). Also see: Slunge and Walter 2013)..

3.3.1.2 Attributes of intersectoral coordination and community participation

My analysis signals that some key policies recognize the importance of stimulating coordinated engagements across agencies, including other stakeholders such as Indigenous groups, to promote broader participation in water governance. The Law of Popular Participation passed in 1994 was a core policy that reflected such recognition (Ley N° 1551 1994). As such, efforts to

encourage intersectoral coordination and community participation began to emerge in policy-making.

The BOLFOR project in 1994 is an important implementation efforts that illustrated how the state set out to encourage intersectoral coordination and stimulate broad participation of non-state actors, including Indigenous groups. The BOLFOR project was developed concurrently with the enactment of Popular Participation Law (Law 1551). BOLFOR project was implemented in conjunction with public sector, private sector, and Indigenous groups. The BOLFOR planning and implementation team comprised of intersectoral and cross-agency collaboration between Bolivian state agencies, such as the Ministry of Sustainable Development and National Institute of Agrarian Reform. Organizations that were involved in the projects include; Tropical Research and Development (TR and D), Conservation International (CI), Wildlife Conservation Society (WCS), the Forest Management Trust (FMT), the University of Florida (UF), and the Center for International Forestry Research (CIFOR). Others include individuals from Chemonics International Inc., a Washington D.C. based consulting company that primarily planned and implemented projects. Likewise, through Law 1700, the state assigned governance roles to actors working at different scales of governance, including public and private sectors, and civil groups. In principle, law 1700 granted citizens the rights to participation in forest decision-making (Table1).

Furthermore, declarations that accentuate the importance of intersectoral coordination (using terms like integrated management in policy documents) and community participation also began

to emerge in policies. DS 25158 illustrates efforts towards intersectoral coordination and community participation. DS 25158 states that;

“The National Service of Protected Areas SERNAP’s major functions are those of defining the biodiversity conservation policies, supervising the integrated management of the protected areas [including watersheds], and promoting the social participation of Indigenous populations and local communities in the protected areas.” (Decreto Supremo No 25158, 1998 - Chapter 2, Article 7)

Similarly, the 1992 Environmental Law includes this (and other) statements about participation of non-state actors:

“The State will create the necessary mechanisms and procedures to guarantee: (i) the participation of traditional communities and Indigenous Peoples in the processes of sustainable development and rational use of renewable natural resources, considering their social, economic and cultural characteristics, in the environment where they operate. (ii) Rescue, dissemination and use of knowledge about the use and governance of natural resources with the direct participation of traditional communities and Indigenous Peoples.” (Ley N° 1333 1992, Chapter 1 - Article 78)

However, Morgan (2011) reports that efforts to enhance procedural equity and intersectoral coordination, as highlighted in above policies, were often subservient to pre-existing governance approaches. My analysis, see Table 3.3, illustrates a lack of coherence in the efforts to enhance community participation in this era. While some of the key policies indicate declarations in support of enhanced community participation (e.g. the Popular Participation Law and

Environmental Law, as shown above), there are also declarations that tend to limit community participation (e.g. the Water Law 2029), which I discuss below.

In 1999, in an attempt to encourage broader participation in water governance, the Bolivian state began to explore water privatization as an alternative water governance approach (Hailu et al., 2012), “Water privatization emerged based on the idea that corporate management can improve service and enhance conservation of scarce resources, while bringing in healthy profits” (Fabricant & Hicks, 2013: p132). The expectation of the state is that the privatization effort will help achieve i) intersectoral coordination by broadening the categories of actors involved in water-related decision-making (Coleman, 2012) and ii) enhance water provision (Hailu et al., 2012). However, my analysis shows that declarations in key policies that promoted water privatization effort appeared to constrain community participation. For instance, the 1999 Water Law (Law 2029) introduced water concessions by transferring all concessions from the state to private entities (Table 3.1). Thus, relinquishing power to private corporations while ending traditional systems of water rights and governance in rural communities. The Law specified the procedure for granting concessions and licenses for the provision of water services, rights and obligations of water providers and users, the principles to fix the prices, fees, as well as the determination of infractions and sanctions. Nonetheless, the challenge of procedural equity trailed these policy interventions, as illustrated by the “guerra del agua”- water war in Cochabamba (Marston, 2015). Aguas del Tunari (AdT) which is a consortium led by the International Waters Limited, Bechtel/Edison SpA (USA/Italy) occupied a central stage in the Cochabamba Water War. The AdT management sharply increased water tariffs. As such, there were frequent water service disconnections at households who were not able to pay the rates.

This resulted in a widespread riot in 2000 (see Global Water Partnership (2017) for a chronology and implications of the Cochabamba water war).

During the neoliberal policy regime, with water privatization effort at its peak, an understanding of ‘water as a right’ was substituted for ‘water as a service’ by the government. That is, “water became a resource to be harnessed and subsequently provided to users as a service” (Morgan 2011: p93). Even though Law 2029 enabled the ‘National Superintendence for Basic Sanitation’ to conduct the agreements with concessionaires, the ‘Regulation for Institutional Organization and Concessions of the Water Sector’, which was approved in 1997, outlined the roles of National Superintendence for Basic Sanitation and resulted in the enactment of Law 2029 (Nickson and Vargas 2002). In 2000, the government formed a commission to review Law 2029 and put forward a new version – Law No. 2066, which modifies regulations that violate procedural equity, including rights of Indigenous Peoples in the context of water access (Centro Agua 2002).

Following the water war, resources such as water, forests and land became central to anti-globalization movements and debate in Bolivia. For example, the Inter-institutional Water Council was created in 2006 to facilitate deliberation amongst state representatives, civil groups, private sector, academic institutions, and municipalities, regarding the development of new water policy interventions. The prevailing anti-globalization view amongst Bolivia underpinned the change in power and governance that commenced in 2006.

3.3.2 The ‘Living Well’ policy regime (2006 - 2013)

3.3.2.1 *Actors, objectives and legislation*

The government of Evo Morales, which commenced in 2006 introduced a new policy paradigm, based on the concept of “Living Well”. The concept of Living Well is defined as "a civilizational and cultural alternative to capitalism based on the Indigenous worldview (Cosmo vision) that signifies living in complementarity, harmony and balance with Mother Earth and societies, in equality and solidarity and eliminating inequalities and forms of domination. It is to Live Well amongst each other, Live Well with our surroundings and Live Well with ourselves" (Bolivia government 2012 - Article 5.5: p7).

This era formally recognizes the changing view of the state about PES approaches (as highlighted in the section above) and commences the enactment of policies in favor of alternative approaches (discussed in later section). The outlook of the government of Morales about the previous regime, and how that underpinned the development of new policies can be seen in an excerpt of the president’s speech at the United Nations Forum Climate Change Convention, fourteenth session of the Conference of the Parties (COP 14) in 2008.

“Under this system [neoliberal regime] we are not human beings, but consumers, and our Mother Earth does not exist but only as raw material. Capitalism is the source of asymmetries and imbalances in the world because it generates lust, greed, ostentation, and waste on the part of a few, while millions in the world die of hunger. In the hands of capitalism, everything is a commodity: water, soil, the human genome, ancestral cultures, justice and life itself. Under capitalism

absolutely everything can be bought and sold, and even Climate Change has become a business” (Ministerio de Medio Ambiente y Agua 2009: p7)

The development of legal and institutional framework that shaped water governance during the Living Well era commenced with the creation of a new Ministry of Water in 2006 (Fabricant & Hicks, 2013). Policy reforms followed with policies such as the Agrarian Reform Law (Law 3545), which was passed in 2006, the National Holistic Forest Management Plan (NHFMP) in 2008, and the new Constitution in 2009 (Table 3.2). The approval of the constitution in 2009 set the framework for other crucial policies at the LuW nexus under the Evo Morales government, including the Law 071, Law 300, Autoridad de Fiscalización y Control de Bosques y Tierras (ABT) Resolution 250 and Supreme Decree 1696 (Table 3.2).

In an effort to reduce the dominance of international actors, more specifically, the international private corporation, the government negotiated terms for the departure of international water corporations in Bolivia. For example, the Bolivian government compensated an international water corporation called Suez USD \$5.5 million for lost investments (Fabricant & Hicks, 2013). In addition, the government eliminated agencies and policies such as the National Superintendence for Basic Sanitation and the System of Sectoral Regulations (SIRESE), and set out a new water policy based on the principle ‘water for life’. Water for life as a principle identifies water as a human right and stresses universal service of water (Berg and Vargas 2009). Moreover, the constitution highlights government’s intention to advance coordinated policy interventions to address water challenges. This intention was captured through the reflection of water-related objectives in policies such as Law 071 and Law 300, as shown in Table 3.2.

The objectives of key policies in this era were characterized by more direct efforts to encourage intersectoral coordination in the following ways; i) explicit pronouncement of interactions between different forms of land uses such as forests and agricultural systems, water availability and livelihoods sustenance, in policies such as the National Forest and Climate Change Strategy (NFCCS), and ABT Resolution 250 (Table 3.2) ii) the creation of new agencies comprising of multisectoral units and experts such as Plurinational Mother Earth Authority (Table 3.2) iii) recognition of multiple roles of forests, especially in relation to water provision (e.g. in the NHFMP, NFCCS and law 300 (Table 3.2)). Additionally, principles that accentuate the significance of procedural equity as it relates to community participation are better integrated into policies.

Table 3.2 Key policies at the LuW nexus during the ‘Living Well’ regime (2006 – 2013)

Year	Key policies	Key features and objectives related to water governance	Actors involved in development of policies	Community participation (expression of procedural dimension)	Attributes of intersectoral coordination
2006	Agrarian-reform Law (Law for Communitarian Re-organization 3545)	Aimed to ensure that all lands serve socio-economic functions including water provision.	State (e.g. via the Ministry of Rural Development and Land/ the Agriculture Superintendence).	Aimed at promoting community-level land governance and prioritizing the distribution of public lands in favor of Indigenous groups.	i) Emphasis on the multiple benefits of forests and integrated governance as a way of ensuring poverty
2008	National Holistic Forest Management Plan	Recognized the multiple functions of forests, including water benefits. The plan also guarantees forest conservation in ways that ensure continuity of forest goods and services. Identified the need to develop innovative forest governance techniques such as watershed governance.	State (e.g. via agencies such as Foundation for the Development of the National System of Protected Areas – FUNDESNA).	Emphasized equity through co-governance approaches that include communities and improved community access to forest resources.	alleviation and conservation, and the importance of forests in adaptation. For example, in respect of the NFCCS developed in 2010, Müller <i>et</i>

2009	The Constitution	Declared all natural resources, including water as property of the Bolivian people and the state as the administrator.	State; Northern NGOs (e.g. Food and Water Watch); Indigenous groups (e.g. CIDOB); 60% of the population were involved in a National Consultation process.	Incorporated the right of Free, Prior and Informed Consent (FPIC) of affected populations in respect of natural resource exploitation.	<i>al.</i> (2014) assert that the major roles of forests are explicitly articulated to include climate change mitigation and adaptation of
2010	National Forest and Climate Change Strategy (NFCCS)	Aimed to develop initiatives to strengthen the role of forests as regulators and protectors of water resources, through the replacement of forest cover in a more integrated and sustainable way.	State (e.g. via the Forest and Land Audit and Social Control Authority – ABT in Spanish acronym); NGOs (e.g. WWF).	Identified mechanisms of interventions, including the promotion of community participation in defining operational guidelines and broadly, decision-making related to climate change issues.	local people for the first time in Bolivian legislative proposals.
2010	Law on Rights of Mother Earth (Law 071) - establishes	Established rights of Mother Earth in respect to water. These include, right to the preservation of the functionality of water cycles, of their existence in the quantity and quality necessary for the support of all	State (e.g. via the Vice-ministry of Environment, Biodiversity, Climate Change and Forestry Management and	The law asserted community participation as a duty.	ii) Long public consultation (with civil organizations and sectors) preceded the approval of the constitution in 2009.

	mother earth as a rights holder	life systems, and their protection against pollution for the reproduction of the life of Mother Earth and all its components.	Development); NGOs (e.g. WWF).		iii) Key objectives are articulated in
2011	Plan for the Sustainable Life of Forest	Aimed to promote the multiple functions of forests, including water benefits.	State (e.g. via the Vice-ministry of Environment, Biodiversity, Climate Change and Forestry Management and Development); NGOs (e.g. WWF).	Emphasized public consultation in decision-making to advance procedural equity.	policies in order to encourage cross-agency and sector interactions (as portrayed in Law 071 and 300).
2012	The Framework of Mother Earth and Holistic Development for Living Well (Law 300)	<p>Aimed to develop processes and integrated actions to facilitate access to water and water territories (commitments are stated in article 19 and 20) within the framework of respect and gratitude to Mother Earth.</p> <p>Aimed to facilitate the reduction of differences in relation to the access of the Bolivians to land, water, forests, biodiversity and other components of Mother Earth.</p>	State (e.g. via agencies including the Plurinational Authority of Mother Earth (APMT) and the Plurinational Climate Change Fund; international donor (e.g. Danish government).	Empowered local communities to develop actions in consideration for interactions between different forms of land uses such as forests and agricultural systems, water availability and livelihoods sustenance; and in accordance to local	Examples of agencies in this category include the Vice-ministry of Environment, Biodiversity, Climate Change and Forestry Management and Development, the

				rules and procedure which are indicated under law.	National Parks Service (SERNAP), the Forest and Land Audit and Social Control Authority (ABT), and the Plurinational Mother Earth Authority (APMT).
2013	ABT Resolution 250	Provided guidance on the contents of the Integrated Forest and Land Management Plans (PGIBTs), which are documents that illustrate land-use plans, including catchment areas, from a local perspective - prepared by communities that have communal territories covering less than 2,000 Ha.	State (e.g. via ABT); Civil organizations, NGOs (e.g. WWF), public and private actors.	Included statement on community participation in respect to participation in the development of PGBITs, and defining and promoting community-level interests in decision-making.	
2013	Supreme Decree 1696	Regulated Law 300 by focusing on developing institutions to implement the objectives of Law 300 - i.e. articulates the structure of APMT and JMAM.	State through the Plurinational Mother Earth Authority.	Identified communities as part of the groups with which the APMT implements and coordinate its projects.	

3.3.2.2 *Attributes of intersectoral coordination and community participation*

Attributes of intersectoral coordination and community participation are better integrated in written policies of the Living Well era, as opposed to the neoliberal policies. The political narrative that underpinned the change in governance lends support to this claim. The Movement Toward Socialism, (with Spanish acronym - MAS) is a conglomeration of social movements, formed in the mid-1980s (Fabricant & Hicks, 2013). The party merged “indigenous activism with opposition to neoliberalism” (Kohl & Bresnahan, 2010: p5). The agenda of the party dated back to the Bolivian National Revolution between 1952 to 1971 when an elite group of Indigenous Peoples, the indigenistas, came to prominence (Ari, 2014a). Similar to the view and advocacy of the indigenistas, the MAS party advocates for the development of a new constitution, which will focus on enhancing participation of the Indigenous Peoples in governance and coordinated actions across different actor categories and sectors (Adolfo García Jerez *et al.*, 2015). On the one hand, Evo Morales’ governmentsanctioned policy reforms in favor of community participation. For example, Law 071 (Article 9) states the duty of citizens is to participate actively, personally or collectively, in the generation of proposals aimed at respecting and defending the rights of the Mother Earth. Likewise, Law 3545 and NHFMP identified principles to ensure participation of non-state actors, especially Indigenous communities, in co-governance approaches (Table 3.2). On the other hand, enacting policies that foster cooperation between relevant actor groups and institutions is one of main goal of the government. Policies that were passed led to the agrarian revolution, emphasis on the multiple role of forests and holistic resource governance. Holistic resource governance is as governance approach that recognizes the interconnectedness of the different component of nature, including water, land, forest and humans. Holistic resource governance seeks to ensure that the different interests,

cultures and practices that characterize the resource users are reflected in the way power and responsibilities are shared, how decisions are taken and how users benefit from resources. In the Bolivian context, the NHMP defines holistic resource governance as a governance approach that i) does not destroy the cultures and practices of the different users who depend in different ways on these resources, especially small producers and Indigenous communities, agro-extrativists and peasant women and ii) strongly encourages the participation of all actors in decision-making and use of resources.

The agrarian revolution commenced in 2006 through the enactment of Law 3545. Law 3545 set out to tackle Indigenous territorial and land tenure rights issues. Law 3545 reformed INRA for the purpose of redistributing lands in favor of Indigenous communities that do not have any or enough land. To achieve this goal, INRA is expected to enable coordination across sectors and actor categories, including Indigenous groups, and ensure that procedural dimension of equity are better expressed in resource governance.

Multiple roles of forests and the importance of holistic resource governance was emphasized in the NHFMP in 2008 (Table 3.2). The NHFMP is an outcome of the 1996 Forest Law reform. The NHFMP captures a holistic view of forests in line with the concept of Living Well and draws out connections between forests, culture, spirituality, food, water, health and wellbeing. The NHFMP laid the foundation for the 'Law on Rights of Mother Earth' (Law 071) and the Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests and Mother Earth (JMAM), which were later developed.

Table 3.3 Key policies and how their declarations tend to favor or constrain community participation across the two eras

	The neoliberal policy regime (1990 – 2005)	The ‘Living Well’ policy regime (2006 - 2013)
With tendencies to favor community participation	Environmental Law (Law 1333) The 1994 Constitution Popular Participation Law (Law 1551) System of Sectoral Regulations (Law 1600) Forestry Law (Law 1700) Agrarian Reform Service Law (Law 1715) Regulation of Protected Areas (DS 25158) The Municipality Law (Law 2028) The Irrigation Act (Law 2878)	Agrarian-reform Law (3545) NHMP The 2009 constitution Law on Rights of Mother Earth (Law 071) Plan for the Sustainable Life of Forest The Framework of Mother Earth and Holistic Development for Living Well (Law 300) ABT resolution 250
With tendencies to constraint community participation	National Regulation for Water and Sanitation Services Regulation of Protected Areas (DS 24781) Regulation for Institutional Organization and Concessions of the Water Sector Water Service Law (Law 2029) Water and Sanitation Service Law (Law 2066)	The 2009 constitution

Table 3.3 summarizes how key policies across the two eras tend to favor or constrain community participation through the declarations that are incorporated in the policies. In addition, the Table shows that progress have been made in having coherent policy narratives that signal the

importance of community participation during the Living Well era (as seen in Table 3.2), with the exception of the 2009 Constitutions.

In 2009, the Constitution, which is the central policy of the Living Well era was passed. It set out the framework for how the policies at the LuW nexus are interpreted and used in the context of water governance (Table 3.2). My analysis indicates presence of contradictions in the declarations of the constitution, as it relates to the expression of procedural dimensions of equity and intersectoral coordination efforts. More specifically, the Constitution has declarations that tend to enable and constrain community participation in water governance (Table 3.3). On the one hand, the constitution encourages equity. For example, the constitution declares that “everyone has the right to universal and equitable access to basic drinking water services” (The Government of Bolivia 2009, Article 20.1: p25). The constitution also identifies mechanisms to ensure that the rights are protected by stating that “access to water and sanitation services are human rights, are not subject to concession or privatization and are subject to licensing and registration, in accordance with the law” (The Government of Bolivia 2009, Article 20.3: p25). Thereafter, the constitution assigns regulatory enforcement roles to the Agro-environmental Courts (The Government of Bolivia 2009, Article 189: p72). On the other hand, the constitution appears to embolden centralized approach to governance by proclaiming that “the natural resources are property of the Bolivian people and the state is responsible for their administration” (The Government of Bolivia 2009, Article 349: p122). These contradictions undermine other previous policy efforts such as Law 3545 and NHFMP approved in 2006 and 2008 respectively, which in principle empower non-state actors, including Indigenous Peoples, to actively participate in water governance. As a result, water governance became increasingly centralized

as the state began to maintain control over water cooperatives who are the main water provider in the country. Subsequently, options for participatory water governance approaches began to decline (Asquith and Vargas 2007).

Concurrent with the promulgation of the Constitution was the development of water governance strategy for watersheds in 2009 by the Ministry of Environment and Water. This effort was established in cooperation with the GIZ agricultural development programme. It was designed to capture crosscutting socio-political themes such as gender, multiculturalism, conflict and social policy management, with the goal of strengthening rural development. However, due to policy contradictions as highlighted above, and lack of cooperation among sectors and institutions (GIZ 2012), the strategies could not be implemented.

From 2010 to 2012, the state intensified policy and implementation efforts to encourage intersectoral coordination and community participation, by developing holistic and integrated actions for water governance. The effort is reflected in the approvals of Law 071 in 2010, the Sustainable Life of Forest Plan in 2011, Law 300 in 2012, and the Joint Mitigation and Adaptation Mechanism for the Integral and Sustainable Management of Forests and Mother Earth (JMAM) in 2012 (Table 3.2).

The JMAM became the key government-sponsored program that emerged in 2012. Plurinational State of Bolivia (2012b :p19) explains that “JMAM should operate in practice as a smart unit of coordination and articulation through building networks (horizontal and vertical) in different institutional and social levels and arenas, promoting the subscription of ongoing initiatives of

integrated and sustainable management of forests and systems of life into the Mechanism for support and strengthening”. The JMAM is an initiative that sought to embody the keenness of the Bolivian government to oppose previous neoliberal agenda, conventional PES initiatives and encourage locally driven interventions for forest and water governance. However, my findings show that JMAM is perceived by non-state actors to be ineffective due to sectoral thinking and lack of capital investment, as illustrated below by an NGO expert.

“The JMAM as an approach is very important and a good concept, but it [JMAM] does not have good tools, instrument and support for implementation. The present legal framework is not good enough for implementation. That’s the main problem.” NGO expert 1

Another NGO expert corroborated the above statement by identifying lack of capital investment to implement JMAM. The expert further summarized the JMAM initiative as follows,

“JMAM is politically motivated, ideologically driven, but technically unsound”
NGO expert 2

Efforts by the state to boost investment for implementing policy programs led to the ‘FAO/Green Climate Fund – Bolivia’ partnership. The partnership relates to the development of a proposal to access \$250 million USD to tackle the challenge of limited community access to water in Bolivia, a problem that was described as “particularly alarming since 2015” (FAO 2017).

Though some progresses have been made in having coherent policy narratives that signal the importance of community participation in the Living Well era, the dilemmas of contradictory narratives in policies appears to transcend the two governance eras (Table 3.3). As such,

realizing improved community participation in water governance remains elusive in practice. Socio-political issues, including social unrests, protests and rise of state-resistance groups that were prevalent in the neoliberal era resurfaced, with implications for current water governance.

3.4 Implications of past policies on current water governance

The policy profile presented above highlights two key insights for understanding how post-1990 policies at the LuW nexus shaped current water governance. Firstly, there are improvements over time in the development of key policies. The improvements relate to better incorporation of declarations that support community participation and intersectoral coordination as a way to enhance water governance. Secondly, there are contradictions between improvements in enacting policies, and improvements realized in practice. I discuss these insights below.

Regarding improvements in the development of policies at the LuW nexus over the two eras, Table 3.3 characterizes the key policies into two categories; policies with declarations that tend to enable community participation and policies with declarations that tend to constrain community participation. The neoliberal era is characterized by numerous policies in both categories (enabling or constraining participation). In contrast, with all but one key policy characterized as favouring participation, the Living Well era appears to be more coherent in terms of policy commitment to ensure community participation.

In terms of progress in intersectoral coordination across the two eras, the trend is similar to community participation. There is more evidence of overlaps in responsibilities amongst sectors (e.g. World Bank (2006) indicates that Law 1551 and Law 2028 contributed to institutional

conflicts and responsibility overlaps) and key policies (e.g. the 1999 Water Service Law) that tend to promote implementation efforts that limits the involvement of communities in favor of international and/or private entities. By contrast, in the Living Well era, policy declarations appear more explicit in drawing out relationships between holistic resource governance (referencing linkages between culture, life forms, forests, water and food) and needed cooperation across sectors and actor categories. Examples of these declarations are found in Law on Rights of Mother Earth (Law 071), Plan for the Sustainable Life of Forest and the Framework of Mother Earth and Holistic Development for Living Well (Law 300).

Regarding contradictions between policy and practice, progress in the development of post-1990 policies at the LuW nexus (e.g. increased recognition of intersectoral coordination and community participation in policies, and enactment of legislation to support holistic water governance approaches), has not translated into improved community participation in water governance . This was illustrated by the contradiction of the 2009 Constitution and perceived failure of interventions such as JMAM – as described in earlier section. In relation to the 2009 constitution, debates persist about how the presidency of Evo Morales is able to promote policy actions including protecting the interests of Indigenous and racialized communities in resource governance (Delgado, 2017; Kohl & Bresnahan, 2010; McKay, 2018). Despite the promise of the Morales' government to “redistribute the patrimony of the country to its poor and Indigenous populations” (Fabricant & Postero 2018), political conflicts caused by inadequate access to resources such as water, control over territory, unequal distribution of benefits and consequences of infrastructure development, which predated the Morales' presidency persist. For example, some human rights movements and Indigenous activists view Evo Morales' policies at the LuW

nexus to be contradictory in the case of the national park and indigenous territory TIPNIS (Territorio Indígena y Parque Nacional Isiboro-Secure). In 2009, the Bolivian government signed a contract with a Brazilian construction company to construct a highway of 306 kilometers, which will cross the national park and connect Cochabamba with Beni (Delgado, 2017). Considering that TIPNIS is classified as a biodiversity hotspot and legally classified as a TIOC (Indigenous Original Peasant Territory), the highway project undermines the rights of Indigenous Peoples and potential for them to access resource benefits from the park (Reyes-García et al. 2020). Fabricant & Postero (2018: p 906) highlights community protests calling for the stoppage of the TIPNIS highway construction because “the highway project had not been the subject of a prior consultation as required by the new 2009 Constitution”.

The 2009 constitution, being the core policy that frames current policy development and interventions at the LuW nexus, is increasingly being investigated by scholars, in terms of how the Constitution shapes interventions at the LuW nexus. For example, in relation to JMAM (e.g. Müller *et al.* 2014) and TIPNIS (e.g. Delgado, 2017; Mouly & Hernández Delgado, 2019; Reyes-García *et al.*, 2020). Müller *et al.* (2014) argue that the existence of implementation gaps is partly linked to investment-related difficulties. For example, for the TIPNIS project, the construction of the highway is expected to lead to more investments in Bolivia by expanding markets for loggers, coca growers and Brazilian soybean growers (Mouly & Hernández Delgado 2019). The investment-related difficulties appear to transcend governance eras. On the one hand, Valdivia (2010) argues that the goal to attain financial independence to pursue broad economic and social agendas led to the emergence of dominant international actors in water governance during the neoliberal era. Critics, mainly civil society groups, often associate prevailing lack of

effective policies to excessive focus on attracting investments, mishandling of funds, or corruption (Coleman 2012). This perspective enthused the emergence of the Living Well era. On the other hand, Morgan (2011) suggests that inadequate investments continually interrupts Bolivia's intentions to pursue livelihood options based on Living Well, as efforts to attract investments for water governance tend to result in partnerships with international actors (e.g. the FAO/Green Climate Fund – Bolivia' partnership), which were previously criticized by the government as agents of capitalism, for instance, through Evo Morales' speech highlighted in the earlier section.

As such, new approaches to water governance began to emerge in response to the challenges highlighted above. A notable water governance approach that emerged relates to the 'PES-like initiatives' (Kolinjivadi *et al.*, 2019; Van Hecken *et al.*, 2018). Robertson and Wunder (2005) define PES-like initiatives as environmental conservation and protection models that demonstrate interest in the use of economic incentives, with traditional conservation and development tools. In contrast to 'pure' PES initiative (which was part of policy interventions during the neoliberal era), whereby all five attributes of a PES, a voluntary agreement, a well-defined service, at least one buyer, at least one seller, and a transactional condition, must be met. PES-like initiatives only fulfil these criteria in part. Out of the five criteria, conditionality is the most likely to be unmet in the Bolivian context. Common lack of conditionality could be interpreted as prevalent unwillingness to totally commit nature or natural resources to any long-term transactional deed, as reflected in the notion of self-determination and reverence to 'pachamama', which underpins Indigenous cosmology in Bolivia. In Bolivia, PES-like initiative is a response to limited community access to water and Bolivia's opposition to the conventional market-driven

conservation approaches that was perceived by the state to be part of PES during the neoliberal era. Water governance approaches that are promoted by non-state actors, in particular, environmental NGOs, are the major PES-like initiatives in Bolivia. Examples of these water governance approaches are implemented in watershed areas, including the Association for the Protection of Water Sources of the City of Tarija and Surrounding Communities (PRO-AGUA), led by the Environmental Protection of Tarija (PROMETA), and the Reciprocal Water Agreement (RWA) in Bolivia, led by FNB.

Some of the emerging water governance approaches appear to share similar characteristics of multi-level governance with JMAM. This is illustrated by the RWA in Bolivia. The key actors in RWA-Bolivia are local community stakeholders, water cooperatives and municipal governments, both of which have a vested interest in water sources conservation (Bottazzi *et al.* 2018) as well as funding partners, which include national private sector like Banco Los Andes, and international actors like Nature and Culture International and the European Union. The local community stakeholders, who primarily own patches of forest watersheds on private lands, sign legally binding agreements in exchange for in-kind compensation and training such as apiculture practices. Local water funds are created to facilitate this process (Bottazzi *et al.*, 2018). The local water fund comprises of 20% contribution from the implementing NGO – FNB, and 80% contribution from municipalities and water cooperatives (Asquith and Vargas, 2007). The funding situation of RWA, which relies more on local contributions, makes it different from ‘pure’ PES initiatives that often rely on international donors (Robertson and Wunder, 2005). Broadly, the RWA governance approach seeks to enhance investments in local institutions, including capital investment and community participation (Asquith and Vargas, 2007; Bottazzi *et*

al., 2018), procedural equity in terms of participation of non-state actors in decision-making (Bétrisey *et al.*, 2016, 2018), and harnessing forest watershed conservation actions that draw from multiple perspectives and interests, i.e. holistic resource governance (Müller *et al.*, 2014).

3.5 Towards a sustainable future for water governance

Based on my analysis of post-1990 policies at the LuW nexus in Bolivia, I conclude that to advance sustainable water governance, emerging water governance approaches, in particular, PES-like initiatives, are worth exploring. In addition, institutional supports in form of coherence between policy development and implementation (e.g. in the case of the Constitution) will be required to promote water governance through PES-like initiatives.

Despite recurring limitations in policies across the two identified eras, such as sectoral thinking, limited community participation, and gaps between policy and practice, PES-like initiatives appear to hold some promise for promoting sustainable water governance in Bolivia (Bétrisey *et al.*, 2016). This refers to emerging PES-like approaches for water governance that are characterized by locally-sourced financial investments and the co-existence of centralized and decentralized governance approaches. An increasing number of inquiries examine how PES-like approaches for water governance is shaping water access (e.g. Van Hecken *et al.* 2012; Martin-Ortega *et al.*, 2013; Bétrisey *et al.* 2016; Kovacs *et al.*, 2016). Across this body of literature, what remains unclear is to what extent are emerging PES-like governance approaches like RWA address persisting criticisms of PES, especially in terms of participation. Nevertheless, I posit that these emerging approaches are subservient to prevailing policies. In the sense that, dominant policies (e.g. the Constitution and Water Laws) will greatly shape the extent to which an

intervention such as RWA will achieve its goal. As such, I recommend that, combined with an effort to strengthen networks of non-state actors at the community and national level, a key requirement is closing gaps in policy implementation (i.e. advancing improved policy development to actions on the ground).

Chapter 4: At the regional scale

The role of boundary organizations in shaping participation in an emerging approach to water governance in Bolivia

4.1 Introduction

Ensuring that communities living in forested landscapes have adequate access to water remains a societal challenge (Mancheva 2018). Latin America and the Caribbean region has the largest freshwater resource per capita in the world (FAO 2016) considering that region has 33% of the world's water resources (Table 4.1). Nonetheless, due to climatic variability in Latin America, surface water availability is highly seasonal and unevenly distributed across the countries in the region (Reguero *et al.*, 2013). For example, in the case of surface water availability in the sub-region of Mexico, Central America, and the Caribbean, 49.3% of the stream flow takes place between August and October, while 7.3% from February to April. In South America, 34.6% of stream flow between May and July, and 17% between November and January. Due to the surface water variability in the region, some countries such as Bolivia are more vulnerable to inadequate community access than others (Reguero *et al.*, 2013). More broadly, a third of the population in the South American region faces the challenge of inadequate community access to water (FAO 2017).

Table 4.1 Distribution of water resources in the Latin America and Caribbean region

Sub-region	Area (km ²)	Precipitation (km ³)	Water resouces (km ³)	Water per capita (m ³ /hab)
Mexico	1,958,200	1,512	409	4,338
Central America	521,598	1,194	6,889	20,370
Greater Antilles	198,330	288	82	2,804
Lesser Antilles	8,460	17	4	
Guyana sub-region	378,240	897	329	191,422
Andean sub-region	4,718,320	9,394	5,186	49,902
Brazil	8,547,400	15,026	5,418	33,097
Southern sub-region	4,121,190	3,488	1,313	22,389
LAC region	20,451,190	31,816	13,429	27,673
World	133,870,200	110,000	41,022	6,984
LAC/world (%)	15.27	29	33	

Source: (Mejia, 2014: p41)

A common diagnosis of this challenge points to difficulties with identifying governance approaches suitable for ensuring participation of multiple actors with diverse interests, and managing interactions of these actors who work at different scales of governance (Maryudi *et al.*, 2018). Given the increasing trend toward market-based approaches globally (Martin-Ortega *et al.*, 2013), policy-makers in Latin America have similarly considered Payment for Ecosystem Services (PES) as a way to use financial incentives to achieve enhanced participation in water governance (Alwang *et al.*, 2008).

PES is characterised by market-based approaches to encourage institutional arrangements for promoting environmentally sustainable activities. More specifically, PES involves paying land managers to engage in alternative land-use activities including conservation and protection that sustain a desired ecosystem service (Farley and Costanza 2010). In the domain of water governance in Latin America, PES approaches are being used to incentivize the participation of individuals that hold legal title to forestlands in upstream catchments, in activities that seek to improve access or sustain provision of water benefits (Bétrisey *et al.*, 2018). These and other initiatives are underway in Costa Rica, Ecuador, Brazil and Bolivia (see Martin-Ortega *et al.* (2013) for a meta-analysis of PES in Latin America). However, local communities and governments alike are increasingly skeptical of PES approaches (Farley & Costanza, 2010). Common critiques include views that PES encourages the marketization of nature and modifies human interactions with nature, in ways that could be counterproductive to resource governance in the long run (Martin-Ortega *et al.*, 2013). This has been illustrated by perceptions of local communities about PES in Bolivia (Robertson & Wunder, 2005). Additionally, implementation difficulties related to diverging interests and views about insufficient participation of communities in governance and perceived dominance of powerful actors in PES institutional arrangements have been reported. Powerful actors such as international agencies often dominate decision-making in PES programs because they provide primary funding support which is used for incentivizing PES activities (Cabello and Gilbertson 2012). An illustration is the Noel Kempff Mercado Climate Action Project (NKMCA) in Bolivia (Asquith *et al.*, 2002).

This often leads to tension among involved actors and achieving adequate community access to water remains elusive in Latin America (Grover and Krantzberg 2013). In Latin America,

beginning around 2000, ‘PES-like’ approaches for water governance began to emerge in response to the skepticism towards conventional PES approaches (Martin-Ortega *et al.*, 2013). While conventional PES approaches often involve powerful nations or agencies in the global North paying the global South for environmental protection services, ‘PES-like’ approaches typically focus on local or national level arrangements (Robertson and Wunder, 2005) (Table 3.1.). For example, actors may engage in different forms of transactions to achieve desired goals at the local level (e.g. between upstream and downstream community land managers) or national level (e.g. for hydropower generation). PES-like approaches promote local funding arrangements because proponents, usually environmental NGOs, view it to be more sustainable than externally sourced funding, for instance, from international actors and governments that are more vulnerable to changing political conditions (Van Hecken *et al.*, 2012). Furthermore, proponents of PES-like approaches view them as better approaches that responds to common criticisms of conventional PES as highlighted above. More specifically, in relation to coordinating the participation of multiple actors through; negotiation, building relationship and trust (Bétrisey *et al.*, 2018), the identification of shared goals (Asquith *et al.*, 2008) and improving perceptions among actors about community access to water (Bottazzi *et al.*, 2018). Reciprocal Water Agreements (RWA) are illustrative of a PES-like approach.

RWA is a water governance approach that seeks to address inadequate community access to water in the context of forest-watershed catchment areas (Kovacs *et al.*, 2016). It operates on two basic principles: 1) protecting upstream catchment areas will help sustain access to water for downstream communities, and 2) downstream communities (water users) need to contribute to such catchment protection (Asquith *et al.*, 2008).

Table 4.2 Main differences between PES and RWA governance approaches

Features	PES	RWA
Proponents	Mostly governments, with some public-private partnerships (GEF, 2014).	Mostly NGOs – environmental and rural development, municipal governments and water cooperatives (Robertson and Wunder, 2005).
Objectives	Depending on projects, objectives often cover a continuum, from global to local objectives (Engel, Pagiola, and Wunder, 2008). Example include the case of REDD+ which aims to encourage sustainable land-use activities for the purpose of mitigating climate change.	Focus primarily on local contributions. That is, motivations for implementing RWA center on sustaining community access to ecosystem services such as community access to water (Asquith and Vargas, 2007b).
Domain and scale of implementation	Across range of ecosystems (Martin-Ortega et al., 2013). Ranging from large to small scale (Pistorius, 2012).	Forest-watershed protection (Asquith and Vargas, 2007b). Applicable on sites with upstream-downstream communities and geographical connections. Usually on a smaller/ community level (Kovacs et al., 2016).

Actors and roles	Depending on projects, actors may include international to local actors who carry out a range of duties including being a donor, monitoring and supporting agencies such as the United Nations REDD Program, and implementing projects on-ground (Farley and Costanza, 2010).	The involvement of international actors is intentionally minimized to focus on developing local institutions (Asquith et al., 2008). International actors may serve as a donor organization. More involved actors are at the national level or local level including municipal governments, communities, and user groups; and Implementing organizations such as NGOs.
Funding sources	Majority of projects are funded by governments and often involve international transactions when project sites are in the global South (Robertson and Wunder, 2005).	Focus more on contributions from concerned actors at the local or national scale. However, at early stages, proponents draw on external donors for promoting and establishing activities (Robertson and Wunder, 2005).
Compensation mechanisms	Cash and non-cash compensation are promoted (Kaczan et al., 2013)..	Non-cash compensations are promoted. In the Bolivian context, these include a free choice of beehives, fruit seedlings, irrigation tubing, construction material, and barbed wire (Bottazzi et al., 2018).
Main criticisms	Commonly viewed to contribute to the commodification of nature (Spash, 2015).	Still viewed as a PES by some actors (e.g. the Bolivian government), uncertainty about long-term sustainability of projects (Bétrissey, Mager, and Rist, 2016).

Previous studies into how RWA as a governance approach shapes community access to water have generally shown positive results. In the Kangra district of Himachal Pradesh in the western

Himalayas in India, local community stakeholders hold the view that the RWA being implemented in the district has been a relative success (Kovacs *et al.*, 2016). This is based on a report that “the municipal council of the district did not received a single complaint about the quality or quantity of water to houses in the town for at least six months, and there was a general perception among officials interviewed that the quantity of the water discharge had increased from the spring source” (Kovacs *et al.* 2016: p 6). Similarly, the effects of RWA on perceptions of community about access to water have been suggested to be positive in Bolivia. For example, Bétrisey *et al.* (2016: p9) indicate that “the RWA was considered to bring personal recognition, communicatively expressed by the downstream actors during public events—through applause, photo sessions etc.—and increase the reputation and esteem of the individuals who participated in the scheme”, In addition, through the investigation of motivations for community participation in RWA, Bottazzi *et al.*, (2018: p20) signal that “the RWA appears to result in conservation which is truly additional”. However, the extent and nature of participation of local communities in RWA governance are still unclear in both cases – India and Bolivia. On the one hand, as a result of how participation is structured, conflicts began to emerge among actors after 4 years of implementation in the Kangra district of India (Kovacs *et al.* 2016). On the other hand, despite the appearance of good relationships among actors, the capability of an RWA governance approach, in terms of participation, to ensure sustainable delivery of water access for community, remains uncertain in Bolivia (Bétrisey *et al.* 2016). This uncertainty highlights the importance of advancing understanding about how RWA as a governance approach respond to these critiques. And more specifically, how RWA coordinates the participation of multiple actors through negotiation, building relationships and trust.

4.1.1 Colonial history, indigeneity and resource governance in Bolivia

Bolivia is illustrative of social-ecological contexts where water-related issues are interwoven with social and political issues (Kovacs *et al.* 2016; Marston 2015; Müller *et al.* 2014).

Understanding socio-political elements of resource governance in Bolivia requires attention to the colonial history of Bolivia and how interactions between different actors (e.g. the state and Indigenous Peoples) are framed by this history (McKay, 2018; Thiele, 1995; Valdivia, 2010).

The colonial era in Bolivia was from 1500 to 1800 during which Bolivia was under the colonial rule of Spain (Brooke, 1998). The Spanish were primarily interested in the exploitation of silver mines that was discovered in Bolivia in that time (Ari, 2014b). Over the 300 years of colonial rule, the Bolivian society became stratified into different social classes. As Fabricant & Hicks (2013: p131) put it, “the extractive economy of the Spanish empire gave rise to a racialized, laboring hierarchy whereby native peoples were forced to migrate from original lands and territories and were subjugated to slave labor conditions”. Two key ethnic and/or racial categories that play a key role in the framing of contemporary politics emerged – the Indigenous lower class and lighter-skinned European upper class (see Brooke (1998) for a chronology of colonialism and agrarian transformation in Bolivia).

Ari (2014: p14) highlights that “Indigenous Peoples were defined by how they dressed, what language they spoke, their illiteracy, and their lack of formal education. Individuals displaying these markers were thus racialized and targeted for exclusion.” The post-colonial period in Bolivia is marked by series of intertwined events that further put the Indigenous Peoples in difficult socio-economic conditions (Ari, 2014b). These events include the Chaco War between Paraguay and Bolivia from 1932 to 1935 (Sierra, 2019) and continuous mining for silver and tin

up until the 1980s (Marston & Perreault, 2017). During the colonial and post-colonial periods, different occupants have passed through or settled in Bolivia (Ari, 2014a). These occupants have interacted in different ways with resources such as forests and agricultural lands. For example, the case of Spain during the 500 years of mining (Brooke, 1998) and Brazil in the context of agricultural expansion in Bolivia. Brazil enabled their agro-industrialists to undercut poor Bolivian farmers who are primarily Indigenous Peoples. In Santa Cruz, many farmers became landless as they could not compete with the agro-industrialists (Valdivia, 2010).

Issues related to ethnicity and race continually shape political and social debates in Bolivia (McKay, 2018). Between 1952 to 1971, an elite group of Indigenous Peoples, the indigenistas, came to prominence during the Bolivian National Revolution (Ari, 2014a). The indigenistas advocated for a better view of Indigenous cultures and opposed modernization or change for Indigenous Peoples. Their primary intention was to create a counter-narrative to that which colonial rule established to racialize Indigenous Peoples. It is the buildup of this revolution that, in large part, led to the rise of Evo Morales and the MAS (Adolfo García Jerez *et al.*, 2015). As discussed in Chapter 3, there have been a number of policy changes during the Morales government that aim to create more inclusive resource governance in Bolivia. However, issues related to contradictions between improvement in enacting policies and improvement realized in practice persist. For example, the Morales' government increased efforts to recognize Indigenous territorial and land tenure rights through the Territorio Comunal Originario (TCO) program. Nonetheless, some assessments have suggested that the program is struggling to deliver as promised by the government due to corrupt practices. As McKay (2018: p 412) puts it, "the gap between state discourse and practice is part and parcel of the MAS' political strategy to maintain

state power through the balancing of popular legitimating discourses of resource wealth distribution and the continued accumulation of capital via an extractivist development model”. Due to views, especially among Indigenous communities, that the Morales’ government may be dishonest, Indigenous Peoples remain suspicious about government’s intention as it relates to resource governance (Adolfo García Jerez *et al.*, 2015; Ari, 2014b). A key implications of the distrust of government among Indigenous communities is a prevailing view among these communities that their ownership of territories and land can be easily compromised (McKay, 2018). In this sense and combined with the history of colonialism highlighted above, it is important to recognize that topics related to identity and land (e.g. in my case, forested land close to catchment areas) remain sensitive for Indigenous communities (Adolfo García Jerez *et al.*, 2015). As such, following the advice of my collaborator in Bolivia, I focused my study on understanding community participation as opposed to Indigenous participation, which may require my research participants to identify their ethnicity to us (I, a Canadian student and my assistant, a Spanish). Given that my approach has its limitation as noted in later sections, I suggest the issues addressed in this Chapter will benefit from a future investigation conducted by a native Bolivian.

4.1.2 Participation and boundary organisations in resource governance

Increasingly, the focus of resource governance is to ensure the participation of diverse actors in decision-making (Pomeranz *et al.*, 2014). This is due to the recognition that well-structured participation processes represent opportunities to access diverse perspectives for developing robust policies (Secco *et al.*, 2014) and enhance co-governance process and outcomes (Berkes, 2009) more broadly. Boundary organizations have been suggested as playing a key role in

connecting actors and institutions at multiple scales of governance so as to better achieve desired outcomes (Carlsson and Berkes, 2005), like community access to water. Boundary organizations are “organizations that act as intermediaries between organizations, sectors or across levels, to identify problem, knowledge needs and solutions by building relationships across the boundaries between social worlds” (Robinson and Wallington 2012: p3). The roles of boundary organizations are sometimes understood to be carried out through boundary objects (e.g. Lejano and Ingram 2009 and Gray, 2016). Boundary objects are “those objects that cross the boundaries between multiple social worlds, used within and adapted to many of them —simultaneously” (Worrall 2008: p5). To be viewed as acceptable by all actors, boundary objects need to support the achievement of collective and desired outcomes. Boundary objects exist in many forms. They can be abstract, concrete, both, or somewhere along a continuum between these extremes. Examples of boundary objects are assessment frameworks (e.g feral animal impact assessment data in Robinson & Wallington, 2012), reports and maps (e.g Mcknight & Zietsma, 2007), projects and standardized methods (e.g., Eden *et al.*, 2006).

In relation to the participation of multiple actors in governance, some scholars have suggested that boundary organizations can help to i) identify the needed roles across different actor categories that can facilitate meaningful participation in contexts of high uncertainties (Cash *et al.* 2003) ii) coordinate factors that enable cooperation, including relationship and trust building (Berkes 2009) iii) facilitate the development of governance approaches that are both process and outcome oriented (Mortenson and Clapp 2011). Given the suggested roles that boundary organizations perform, how the concept of boundary organisations help to understand participation of multiple actors in different settings has been a subject of several empirical

analyses. These analyses have applied the concepts of boundary organizations to examine multi-actor cooperation in large-scale or inter-organizational contexts (e.g. Lemos and Morehouse, 2005; Lejano and Ingram, 2009 and Yeow *et al.*, 2018). A handful of studies use the concept to examine multi-actor participation in a PES context specifically (e.g. Pham *et al.*, 2010).

However, no analysis has to date, focussed on how boundary organisations shape participation of multiple actors working across different scale of governance in an emerging PES-like governance program. Such analysis will contribute to understanding the roles of PES-like approaches in addressing persistent criticisms of PES, including participation. My analysis focuses on this issue using the case of RWA, a PES-like governance program in Bolivia.

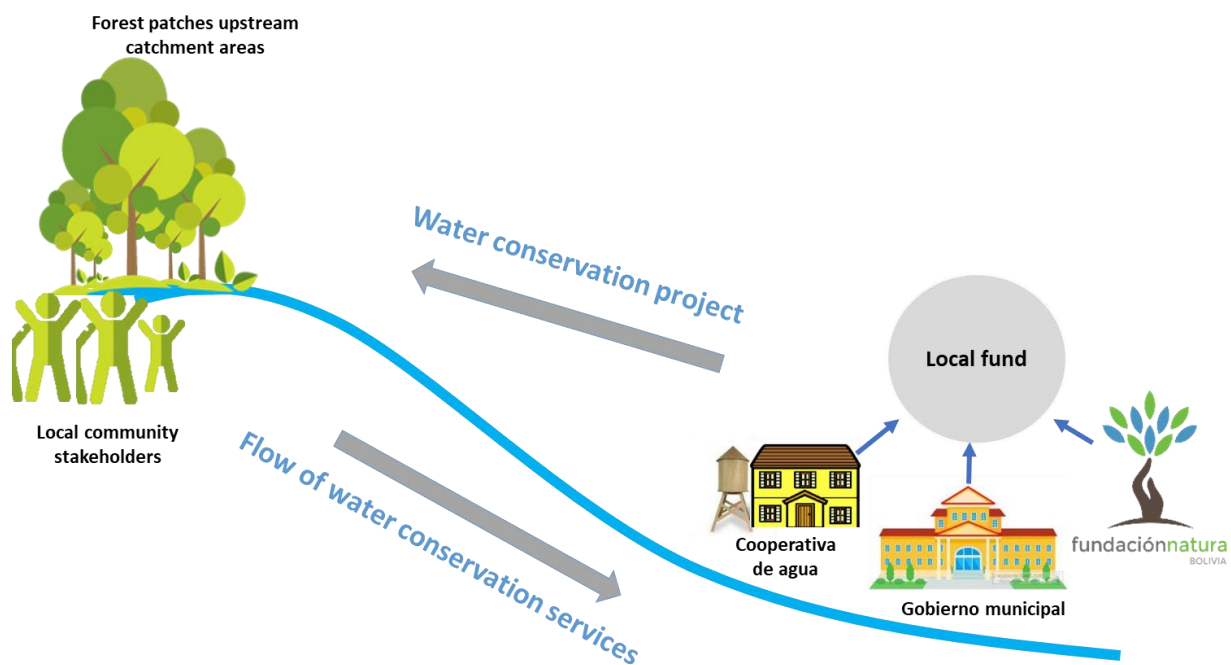
4.1.3 Participation in water governance in Bolivia

As highlighted in Chapter 3, previous empirical studies have established connections between forests and agricultural land use and water governance in the Bolivian context (e.g. Robertson and Wunder, 2005; Asquith *et al.*, 2008; Morgan, 2011; Müller *et al.*, 2014; Bétrisey *et al.*, 2016; Bottazzi *et al.*, 2018). Other studies (e.g. Ecurra *et al.*, 2014; Killeen *et al.*, 2008; Rivera *et al.*, 2019) have shown that despite climatic and hydrological variability in Bolivia, the country is susceptible to water deficits due to rapidly changing climatic scenarios. For example, increasing loss of forest cover significantly reduced precipitation, especially in the Andean region, with communities becoming more vulnerable to drought in the rainy and dry seasons (Ecurra *et al.*, 2014). Communities in Bolivia are confronted with inadequate access to water to different degrees. Inadequate access to water is especially common in rural areas (Coleman, 2012). In urban areas, community access is a little higher but varies across cities. For example, Santa Cruz de la Sierra has a 24-hour water supply, while Oruro and Potosi have between 4-5 hours/day, and

Cochabamba's water situation is worse, with inconsistent water service (Nickson and Vargas 2002). The government of Evo Morales opposed PES in 2010 in favor of "alternative approaches which value sustainable and integral management as key factors for supporting local communities" (INESAD, 2014: p2). The view of the Bolivian government about PES is that it modifies human-nature interactions, including how different actors participate in deliberations about nature, its uses and governance, in ways that transform nature primarily into an economic good (Müller *et al.*, 2014). The state-driven response to the rejection of PES in Bolivia is the Joint Mitigation and Adaptation Mechanisms (JMAM). Launched in 2012, JMAM seeks to promote local actions for integral and sustainable governance of natural resources (Plurinational State of Bolivia, 2012), including water. Yet, communities and civil society groups perceive JMAM to be incapable of leading to improved community access to water due to insufficient community participation in decision-making (Bottazzi *et al.*, 2018). These diverging perspectives have led to controversy about the most appropriate governance approach to address water governance. This difficulty has been widely investigated in Bolivia (e.g. Nickson and Vargas 2002; Berg and Vargas 2009; Morgan 2011; Coleman 2012; Marston 2015).

This study examines the role of a boundary organization in shaping participation within RWA in Bolivia. In Bolivia, RWA was established by the NGO, Fundación Natura Bolivia (FNB), here characterized as a "boundary organization". RWA-Bolivia is characterised by a network of diverse actors with stakes in water conservation and supply. The key actors are local community stakeholders, water cooperatives, municipal governments and FNB (Figure 4.1). The local community stakeholders are individuals or groups that hold legal title to forestlands in upstream catchment areas. Water cooperatives and municipal governments are elected officials, and both

have institutional mandates to address water governance issues in their respective constituencies. There are other actors with indirect involvement in RWA, including funding agencies interested in supporting environmental conservation activities in Bolivia through support to FNB. These include national private entities like Banco Los Andes, international actors like Nature and Culture International, and the European Union. In addition, state actors influence broader conservation policies in Bolivia, thus shaping RWA process (e.g. through legislation like the Constitution and water laws).



Credit: Fundación Natura Bolivia

Figure 4.1 The Reciprocal Water Agreement in Bolivia

To varying degrees, the actors in RWA-Bolivia are involved in the different phases of RWA (Table 4.3). There are 4 key phases in the RWA implementation cycle (Asquith & Vargas, 2007b):

- Phase 1: planning; FNB investigates if conditions that will enable the implementation of RWA are present. These conditions include presence of upstream and downstream actors that are linked to the same water source and presence of local institutions like water cooperatives. If these conditions are present, FNB can start discussions with water cooperatives and municipal governments about potentials of implementing RWA in a municipality.
- Phase 2: developing mechanisms for local fund, the local fund refers to local financial contributions that is used to finance long-term conservation of water sources and development in the municipality. The beneficiaries of the water conservation project e.g. downstream communities pay a fee per household to water cooperatives. The local fund often result from 80% contribution from water cooperatives and municipal governments and 20% contribution from FNB. Water cooperatives play a key role in the implementation of local funds and they manage the funds on a day-to-day basis (I further describe this in later section).
- Phase 3: establishing agreements with local community stakeholders; after the mechanism for local fund has been developed, discussion and negotiation with the landowners at upstream catchment areas - local community stakeholders commence. Based on the size of land that a landowner is offering to conserve and protect, agreement is made regarding their incentive package. The incentives provided are often in form of

development goods such as boxes to produce honey, barbed wire, fruit seedlings, water tanks, technical irrigation.

- Phase 4: monitoring compliance with agreements. This is carried out annually by visiting the catchment area under conservation or via remote monitoring tools. Following compliance to the agreement, local community stakeholders receive incentives for the duration of their contract.

Table 4.3 Participation of actors across the phases of RWA-Bolivia.

	Actors	Phases when participation occur
1	Local community stakeholders	Phase 3 and 4
2	Water cooperatives	Phase 1, 2, 3 and 4
3	Municipality government	Phase 1, 2, 3 and 4
4	State (through legislation like the Constitution and water laws)	Phase 1, 2, 3 and 4 This actor category is not directly involved in the RWA systems (e.g. see Figure 4.1). Indirectly involvement is through the municipal governments)
5	Funding agencies (e.g. Banco Los Andea)	Invitation to some of the ceremonial part of phases 1, 2 and 3 (e.g. social events around signing agreements between FNB, water cooperatives and municipalities). This actor category is not viewed by FNB as a key part of the RWA systems (e.g. see Figure 4.1)
6	Fundación Natura Bolivia (FNB)	Phase 1, 2, 3 and 4

The roles and responsibilities of FNB are to i) structure and coordinate the participation of the different actors in implementing RWA programs; ii) moderate negotiation processes and

decision-making related to the programs iii) provide technical advice based on the identification of knowledge needs for implementation. To achieve this objective, FNB organises meetings with the different actors and promotes negotiation and signing of contractual agreements among the actors (Bétrisey *et al.*, 2016). These meetings and contracts help to identify roles and responsibilities among actors as well as commitments to cooperate for improving water access for communities. FNB, following the definition outline by Robinson and Wallington (2012), therefore, acts as a boundary organization in this context. Following the above, I use the concept of boundary organisations to examine how water governance through RWA in Bolivia is shaping the participation of the different actors (i.e. local community stakeholders, water cooperatives, municipal governments and funding agencies), and their perception about community access to water through this arrangement. This analysis provides an empirical assessment of the extent to which and how PES-like governance approaches like RWA address persisting criticisms of PES, especially in terms of perceptions about participation—and the role of NGOs as boundary organizations in structuring these relationships.

4.2 Methodology

4.2.1 Study area and approach

This study focused on El Torno, Comarapa and San Carlos municipalities in Santa Cruz department of Bolivia. Santa Cruz is the most populated department in Bolivia (Berg and Vargas 2009), and the department accounts for 30% of Bolivia's gross domestic product (Asquith and Vargas 2007b). The population comprises diverse ethnicities and settlers, including Japanese and Mennonites, who are distributed across the municipalities (Pacheco 2006). Santa Cruz is classified as part of Bolivia's lowland tropics (Killeen *et al.* 2007).



Credit: Victoria Aguilera, Fundación Natura Bolivia

Figure 4.2 Map of the study areas

El Torno and San Carlos municipalities are in the Amazonia region and Comarapa is in the Santa Cruz valley. Inhabitants of these regions are comprised of ethnically mixed groups and immigrants that historically settled in the areas while passing through the valley region towards the Eastern Bolivia (Bétrisey *et al.*, 2016). In the three municipalities, communities face challenges including limited livelihoods options because local community stakeholders involved in the RWA program are predominantly located in isolated and marginal areas of the

municipalities, with limited access to public transportation, low quality roads, and lack of social infrastructure like health services (Bétrisey *et al.*, 2018). Agricultural practices such as irrigation agriculture and cattle ranching, are the main source of livelihood sustenance. Upstream watersheds are threatened by extensive cattle grazing, while downstream communities (water users) rely on water flow from the upstream to support local subsistence (Bottazzi *et al.*, 2018).

I adopted a collaborative research approach and design for this study (Creswell, 2014a). More specifically, my approach follows the definition of Pushor (2008: p2), that “collaborative research is research *with* rather than research *on*. It is research that arises out of the expressed needs, interests, and questions of the stakeholders who are most invested in the research and its findings, and it is research conducted in relationship with them.” In this sense, my collaborator is FNB, the NGO that is coordinating the RWA-Bolivia. To ensure that I follow a shared inquiry of mutual interest and benefit, and given valuable insight of FNB related to approaches to better navigate interaction with all actors involved in the implementation of RWA, I worked closely with FNB to make decisions about the focus of my research and procedure for data collection, including the specific municipalities to be included in this study. The collaborator assisted with developing my site selection strategy. I focused on municipalities where insights from this study would be most useful for the development of the activities of the collaborator and research participants (Creswell 2014). More specifically, the sampling strategy for site selection was guided by their level of extensive engagement in RWA, variation in their dates of establishment, ranges from 2008 to 2012 (Table 4.2), and accessibility to the municipalities and the different actors (Table 4.3).

Table 4.4 Information about selected case communities.

Municipalities	RWA establishment date	Number of communities	Size of forest under protection through RWA (ha)
Comarapa	30/01/2008	15	10,842.5
El Torno	28/05/2010	21	6836.6
San Carlos	06/11/2012	33	4277.6

The collaborative research approach I adopted was deemed appropriate for this research context for the following reasons: First, it provided an opportunity to examine an issue of community concern and with the potential to benefit the people involved. FNB showed enthusiasm in understanding how their approach could be improved and if there were lessons that could be learnt before the sites where I conducted my research will need to continue the RWA initiatives without the supporting role of FNB (I had a follow-up meeting with some representatives of the water cooperative and municipality in the study areas to explore their views about this emerging phase. See Appendix F) Second, to build alliances with collaborators and participants in the research process, as this helps to gain trust about the authenticity of my status as a researcher. Third, it afforded me better familiarity with the political, social and economic context. Through this collaboration FNB provided field-related supports such as, invitations to relevant RWA meetings, and provision of advice related to selection of municipalities, interview participants, and ethical issues to be considered in conducting the research (e.g. holding meetings with community leaders before commencing interviews with community members).

4.2.2 Data collection

I conducted eight months of field research during two field stays in Bolivia between 2017 and 2018. Data were collected using interviews and participant observation. Municipalities were selected in consultation with FNB as described above. A purposeful sampling strategy was used to identify interview participants (Patton 2002).

Interviews: I conducted 32 interviews with 40 individuals (Table 4.3), 4 interviews were conducted with more than one individual. Interviews were conducted with local community stakeholders, NGO specialists and representatives of municipal governments, state, funding agencies, and water cooperatives in El Torno, Comarapa and San Carlos municipalities.

Interviews covered views about how FNB structures the participation of the diverse actors in RWA (e.g. how roles are assigned and views about participation of different actors) and their views about community access to water (Appendix E). A combination of purposive (Patton 2002) and convenience sampling (Maxwell 2012) was used to identify interview participants. Purposive sampling was guided by selection criteria, including engagement in RWA activities as identified in the actor category below (Table 4.3). Convenience sampling included invitations to interview participants who were accessible during field visits to the forest communities in the three municipalities. The number of participants that were interviewed at the municipality and state level was relatively low due to the politically sensitive nature of natural resources governance in Bolivia. The average time for the interviews was 40 minutes. Interviews were audio-recorded and transcribed verbatim for subsequent analysis.

Table 4.5 Summary of interview participants

Actor category	Number of interviews conducted		Number of participants involved
	Individual	Group	
Local community stakeholders	10	1 (n = 2)	12
Municipal government representatives	5	1 (n = 2)	7
NGO specialists	8	1 (n = 2)	10
State representatives	2	-	2
Water cooperative representatives	4	1 (n = 2)	6
Funding agency representatives	3	-	3
Total			40

n* refers to the number of participants in the group interview

Participant observation during 5 field visits to RWA project sites and 5 RWA meetings: I conducted field visits to one upstream catchment area at each of the three municipalities. Additionally, I accompanied FNB project management team and specialists from other organizations, such as Conservation International, to two RWA project sites. During the field visits, I participated as an observer in meetings between the representatives from water cooperatives, municipal governments and FNB to deliberate about RWA implementation. I took detailed field notes focusing on how RWA shapes participatory processes of negotiation and decision-making. This helped to further understand the roles and participation of different actors in the implementation of RWA. Additionally, during the field visits, I learnt about processes that occur at the early stage of RWA implementation and the motivations for actors including local community stakeholders and water cooperatives, to engage with RWA implementation.

4.2.3 Analysis

Field notes (24 pages) and interview transcripts (400 pages) were systematically coded using a combination of theory-guided and open coding processes (Saldana 2009). Coding was done in Nvivo, using line-by-line analysis of notes and transcripts. Theory-guided coding involved identifying themes related to views about how RWA shapes participation of different actors in RWA governance, and their views about community access to water. Simultaneously, open coding was done to identify new themes as they emerged in the data through the coding process (Charmaz 2006).

The research design included and applied the following verification strategies (Creswell, 1998). First, I ensured congruence between research objectives and methods applied (Morse *et al*, 2002). One, long-term engagement with research participants, for a period of 8 months, and participation in meetings and field visits. Secondly, I sought for negative cases during interviews. This involved seeking if alternative views existed about interest for improved participation within RWA decision-making among local community stakeholders. Thirdly, multiple sources of data. Specifically, I triangulated findings from interviews with participant observations. Fourthly, I pursued iterative interactions between data collection and analysis to enhance the thoroughness of my research. After completing the first phase of data collection (between February and July 2017), . I analysed the data collected during the first phase of my study before embarking on the second phase beginning in March 2018. This iterative analysis helped to ensure “a mutual interaction between what is known and what one needs to know” (Morse et al., 2002: p18), so I could better focus on gaps within my data. For confidentiality, I anonymized respondents and

represent them with codes; including the category of actor, they represent (e.g. Municipal Rep 1.).

4.3 Results

Below, I examine how water governance through RWA, and the central role of FNB within this, shape the participation of different actors, and their views about community access to water in the study areas. Using the concept of boundary organizations, I shed light on how FNB moderates interactions and participation of involved actors as they pursue community access to water. I describe the nature and extent of participation across actor categories and describe efforts of RWA to build trust and relationships while recognizing existing broader policies in Bolivia. I describe these elements in detail below.

4.3.1 Who participates? How? When?

I examine participation within RWA from the design stage, before implementation. From the perspective of FNB, the design stage of RWA involved deliberation and negotiation to ensure a common understanding of the problem, i.e. inadequate community access to water and the approach that will be adopted for tackling it. Interviews and observations at meetings organized by FNB and water cooperatives reveal that representatives of municipal governments and water cooperatives and FNB are the actors that actively participate right from the designing stage of the RWA program. Conversely, local community stakeholders are typically involved in the latter stage, during implementation of RWA programs. A municipal government's representative identifies the actors that participate during the planning phase of RWA, which is the first stage of RWA implementation.

All three of us. That is the municipal government, the water cooperative and FNB, are the partners that are present. [Municipal Rep. 5]

This asymmetry in participation (with local communities not participating at the designing and planning phases) is widely recognized by all actors in RWA as a characteristic of the RWA governance process. On the one hand, this finding illustrates linkages between power and participation in RWA. A project leader in FNB argues that this participation asymmetry is necessary at the early stage to gain political support from the state for RWA. As a result of the Municipal Law (Chapter 3), mayors have responsibilities of ensure adherence to state rules regarding water governance. A water cooperative representative also argues that the water cooperatives participate more in RWA implementation than municipal governments, as municipal governments rarely engage in the implementation process itself. This was illustrated by an interview with a water cooperative representative who explained why the participation of the water cooperative appears to be very salient in the RWA program.

It is mostly the water cooperative and FNB because, sometimes, the problem of the municipalities is that they have very few employees. Though our cooperative has less employees than our municipality, we always mobilize because our interest is direct [with FNB]. It is very rare that they [municipal governments] are available. We have some meetings sometimes, but it's between the cooperative and FNB, and sometimes the municipal government participates, but not like 100%. [Water Coop. 2]

On the other hand, observations during field visits show that communities tend to engage in initiatives that they perceive to have already been sanctioned by local leaders. Local community stakeholders identify the water cooperatives and municipal governments as local leaders. For example, an FNB technical staff explained how some members of the communities need

convincing by local leaders about the security of their land titles, in the sense that the land is still theirs even if they join RWA. He reflected on instances when some community members were first approached by FNB. He noted some reluctance and then willingness to join afterwards.

At first, there are many people who are invited to join but do not want to. But now, they are the ones who are approaching us. At first, they distrusted us because they have to present their land titles. They thought we are going to take their plots. [FNB 2]

The reluctance amongst local community stakeholders to join the RWA as indicated by the technical staff of FNB relates to the colonial history of Bolivia and how it influenced Indigenous territorial and land tenure rights. As described in earlier section, Indigenous communities tend to perceive the process of recognizing tenure rights to be filled with corruption. As such, local community stakeholders appear to require the mediation of local leaders when they need to interact with unknown agencies about land. My interpretation that water cooperatives and municipal governments are viewed as local leaders was further supported by an interview that highlights how participation of a local community stakeholder in RWA began.

Engineers [water cooperative employees] from Valle Grande came. They informed us that there was this assistance. They asked me if we have some forest patches. I did not remember in that moment. Afterwards, I thought about it again. Of course, my husband has his land. That is useful for you? So, in that moment, they gave us all the information, the requirements and that is it. [Local community stakeholder 4]

The awareness that water cooperatives have sanctioned a program appears to be important before communities decide to participate. Nonetheless, some interviewees noted that despite the late participation of local community stakeholders in the designing and implementation of RWA

programs, the acceptance of local community stakeholders is still very important for the RWA program to take place. A municipal technician during a field visit highlighted the process of seeking for local community stakeholders' acceptance of the program

We go to the community. Speak in the central, speak in the federation, and speak in the assembly. We ask for permission. You cannot just enter. [Municipal Rep. 1]

Similarly, a project leader at FNB describes the approach used to seek for the participation of local community stakeholders in RWA.

Firstly, I identify inhabitants who have been living in the community for many years. There are people who have lived there for more than 20 years or all their lives. So, for me, such person is a climate witness. This person knows how it was 30 or 50 years ago and knows how the environment has changed over the years. [FNB 1]

Local community stakeholders are the least involved actor group in the RWA governance process. Although local community stakeholders appear to commonly recognize the need for FNB to involve water cooperatives and municipal governments at the early stage and continuously through the implementation process, the desire for a higher level of participation was also reported by some of the local community stakeholders. While a local community stakeholder was indicating his desire to be more involved in the RWA process beyond the contract signing stage, the local community stakeholder highlighted lack of continuous contacts with FNB.

We were only in communication until a certain point only. I mean, they came a bit and then stopped. [Local community stakeholder 1]

This lack of continuous interaction between FNB and local community stakeholders highlights challenges of excluding local community stakeholders in the first phase of RWA, and/or gaps in

sharing and reaching a common understanding about how RWA shapes the delivery of community access to water. During meetings at the first stage – as is the case in El Torno municipality, where local community stakeholders are not invited, FNB often indicates that both improved community access to water and the sustainability of RWA, even in the absence of FNB, as the joint goal. As such, after implementation, the role of FNB is intended to reduce gradually to give rise to more robust interaction between water cooperatives, municipal governments and local community stakeholders. FNB argues that this gradual withdrawal is needed to ensure that when FNB completely withdraws, RWA remains sustainable.

4.3.2 Boundary organizations, trust and relationships

Building trust and establishing good working relationships are essential components of the RWA governance in Bolivia. The importance of facilitating cooperation among all the concerned actors was highlighted by interviewees as central to RWA implementation. Here, FNB plays a crucial role. Specifically, and in its role as a boundary organization, I find that FNB seeks to build relationships and trust with the other actors in two specific ways. One, by supporting the development of local institutions through local financing mechanisms and use of local technical staff, and two, through meetings, which tend to favor early involvement of powerful actors and contractual agreements.

4.3.2.1 Development of local institutions and operating with local technical staff

In order to incentivize local community stakeholders to engage in conservation practices that support water ecosystem services, local water funds are created and managed by the water cooperatives. The local water fund is typically comprised of 20% - 25% contribution from the

FNB and 75% - 80% contribution from municipal governments and water cooperatives. The contribution from water cooperatives primarily comes from the communities (water users) in the downstream catchment. Water users may include lowland agriculturists, households, hydroelectric plant, and private industries. For example, in the case of financing the RWA program in Comarapa, FNB contributed about 1000 USD, the municipal government contributed about 2,900 USD, and the water cooperative contributes the total of what all water users pay per month, which is 0.4 USD each. The fund is used to provide incentive packages for the local community stakeholders who are the landowners at the upstream catchment areas. A representative of the water cooperative in El Torno explains how the fund is managed.

The compensation fund is managed by the cooperative as the presidency, the municipality as the secretariat, and FNB as a moderator and spokesperson. [Water Coop. 1]

Similarly, another representative of the water cooperative in San Carlos explained why the arrangement for the local water fund helps build trust.

They [FNB] are very transparent in the issue of information and resources because they do not actually handle any of the resources. It is the cooperative that manages all resources. So that builds trust too, does it not? They are also responsible, right? [Water Coop. 3]

FNB argues that by design, RWA is modelled to promote local ownership of RWA programs by facilitating interactions among them and trust building. As highlighted above, local actors primarily finance RWA programs with little support from external sources and FNB acts as a moderator through FNB project managers who are local technicians. Findings show that, in addition to promotion of relationships and trust between local actors, FNB perceives this mode of

financing and management to support the sustainability of RWA programs. An interview with a project manager at FNB illustrates this attribute of RWA programs.

The economic sustainability of RWA is based on local actors. I worked in another NGO as I said before, in another project. But the project only survived until the financing ran out. As the financing of that NGO ended, and of course, as the largest contribution was made by that NGO, and other local partners contributed only 30%, then the project was not sustainable over time. And that is the difference with RWA. In RWA, the local partners contribute the highest percentage and that makes it sustainable. [FNB 1]

The project manager above is a Bolivian and lives in the region where he is responsible as the project manager. RWA documentations (e.g. project reports) indicate that FNB works with technical staff that have context-specific knowledge about where they work as a strategy for building trust and relationships with other local actors. Technicians working with FNB are native of, or have always lived in, the municipalities where they work. These technicians are perceived by FNB and other actors including funding agencies, to have a robust understanding of both the political and environmental situation of the municipalities (I discuss this further in a later section).

4.3.2.2 *The use of meetings and contractual agreements*

The role of FNB as the coordinator of the cooperation between all the RWA actors is facilitated using the organization of meetings with other actors and contractual agreements. Findings indicate that FNB's approach to the meetings focus on the need to ensure diffusion of the RWA objectives and a way to seek project buy-in among all actors. FNB recognizes the need to

continually affirm that RWA is not a PES initiative as popularly perceived by some state level actors in Bolivia (as shown below). Also, it seems that the state perceives RWA as a threat to the development of other water governance efforts sponsored by the government. As such, gaining the support of the state for RWA is a persisting challenge (informal interview with FNB). An interview conducted with a state agency representative illustrates responses that relate RWA to conventional PES initiatives and Bolivia's position about PES programs.

I don't like it [RWA] because it is a PES program. The approach is just wrong. It will be much more productive to work with the Joint Mitigation and Adaptation Mechanism (JMAM) approach. [State Rep. 1]

On the one hand, the development and success of JMAM is contested (e.g. see Müller, Pacheco and Monter, 2014). Contrarily to the view of the state representative above, FNB argues that RWA is not a PES approach because RWA promotes a non-cash compensation mechanism and the compensation is mainly supported by the local water users themselves. Furthermore, FNB indicated during interviews and informal conversations that one of the main reasons why they conduct meetings with municipal governments and water cooperatives is to continually gain their support by using the meetings to emphasize the potential of RWA and how it differs from a conventional PES approach.

Two types of contracts are central to the implementation of RWA. The first is the contract signed between local community stakeholders and water cooperatives. These contracts are signed as a commitment to follow some strict forest-watershed conservation practices, such as avoiding grazing in the water catchment area, in exchange for in-kind compensation such as training in apiculture practices to produce honey, barbed wire, fruit seedlings, water tanks and drip irrigation systems. The type of contract is valid over a pre-defined period and is signed on an

individual or group basis and not on a community basis. One of the local community stakeholders who perceived individual contractual agreements as an advantage emphasized below.

We [local community stakeholders] take the decisions to participate individually.

When participation is done on a community level, it is something else. So, participation in RWA is not on a community level. [Local community stakeholder 1]

Another local community stakeholder elaborated.

Our participation is to make a contract for five years. After five years, it is up to us if we want to continue again or not. It is not mandatory. [Local community stakeholder 2]

These contracts serve the purpose of boundary objects, in the sense that the contracts state the relationship between local community stakeholders and water cooperatives. They also tend to provide a sense of mutual trust, which is supported by points of leverage, such as local community stakeholders receiving the incentives on a recurrent basis, provided that terms of contracts are respected.

The second type of contract is the tripartite contractual agreement, to establish the cooperation between water cooperatives, municipal governments and FNB. Both water cooperatives and municipal governments have institutional mandates and stakes in water conservation. As such, the tripartite contracts can efficiently function as a boundary object, because the water cooperatives and municipal governments perceive signing the contract as strategic for maintaining interaction with FNB and signal their commitments to the goal of RWA. In addition, the meetings that are held between the three actors is stated in this contract. The connection

between this type of contract and the meetings between water cooperatives, municipal governments and FNB (described earlier) and how the contracts serve as boundary objects in RWA was noted by a representative of water cooperatives.

At the beginning of every year, we have the tripartite meeting. That is its name. We have an agreement between Natura [FNB], municipal government and the cooperative. This meeting is to discuss and approve the Annual Organizational Budget. [Water Coop. 2]

Furthermore, a municipal representative explains the municipality's approach to RWA governance, including influence of the tripartite contract and meeting arrangement, and governing legislation such as the Constitution;

Look, as an institution, although we have a signed contractual agreement, which identifies the water cooperatives as the water service operators. Both the political constitution of the state and the law of autonomy are powerful. Right? They have their own structure, statutes and regulations. So, we too, at the time of signing the agreement, we must define the procedure for making decision considering these legislative documents [Constitution and law of autonomy]. We [FNB, water cooperatives and municipal government] sit at a table, each one of us identify what we want to do, and in a consensual way, we define what will be done and the program based on the available resources over the course of a year. [Municipal Rep. 4]

This comment elucidates how municipal governments typically approach the RWA governance while considering the influence of broader policies such as the constitution and law of autonomy in the governance arrangement. In the context of building trust and relationships, the tripartite

contractual agreements serve as a legal document that establishes commitment of the three parties to RWA. The tripartite meetings provide opportunities for continuous (either quarterly or yearly, as reported by other interviewees) interaction, monitoring, and evaluation of RWA projects and planning for future activities.

4.3.3 Perceived influence of RWA on community access to water

Water governance through RWA especially in terms of participation, which I describe in the above sections, recognizes the national legal framework (e.g. the 2009 Constitution, which declares the state as the administrator of natural resources and suggests opposition to any conservation agendas that is not supported by the state). FNB, while recognizing these factors, also appears to focus on navigating them in ways that do not compromise the delivery of improved community access to water. Representatives of local community stakeholders, water cooperatives, municipal governments and funding agencies positively view attempts by FNB to tackle the challenge through RWA. Also, there is a common view among the local community stakeholders that were interviewed, that the RWA has resulted in positive perceptions about impact of RWA on community access to water, as illustrated below by a local community stakeholder who lives in a downstream community.

RWA is a great help, because for us even if it is small, it is very helpful. For example, we have never received any other help from other people, the municipal governments and not from the departmental government. For example, we ask for gabions for the river. We asked the municipality, the municipality told us "go to the departmental government". The governor sent us to the mayor. We have never been given enough support. [Local community stakeholder 3]

Positive views about RWA by the involved actors appear to come from the comparison between attempts by FNB and perceptions that the government is unable to tackle the challenge of limited community access to water as highlighted by the interview above. Similarly, interviews with water cooperative representatives lend support to the claim about perceptions related to government's incapacities in Bolivia.

They say many things about our government. Right? They say defenders of Mother Earth and everything else, but that is the narrative about Bolivia from outside. We in Bolivia pitifully realize that it is not so. [Water Coop. 3]

In addition;

The government always commits and then never complies. Well, they are more politicians than anything else. They are transient. So instead of focusing on them, we do this RWA program. We want to make it sustainable because we want to include it in the statutes. [Water Coop. 1]

As shown above, the water cooperative representative 1 highlights their intention of formalizing their continuous involvement in RWA by including it in their statutes. Their expectation is that continuous engagement in RWA helps the cooperative to deliver its primary goal of water provision to their community. The quote above suggests that the cooperative holds the view that RWA is able to positively shape community access to water. On a related note, a municipal government's representative argues that municipal governments receive little or no support from the state regarding inadequate water access. He further noted,

I think the government does not intervene in anything. It's just speech at the international forums, not even national. Not to speak ill of them [government], but we

are fed up with conservation, water day, earth day, tree day, this day and that day.

Direct intervention is needed, and I think this is minimal. [Municipal Rep. 2]

Based on perceptions that the government is unable to tackle water-related challenge as illustrated above, actors in RWA tend to show a positive attitude towards RWA. A statement made by one of the municipal government's representatives during a group interview illustrates this finding.

The people applauded us when they learned that we have signed the RWA agreement because it is a direct effort to do something about the water issue. Well, it is really a pride for us that we are starting RWA here. [Municipal Rep. 3]

On a related note, interviews with funding agency representatives indicate that funding agencies are more likely to support environmental conservation projects implemented by local organizations whose activities are sustainable within the context of the political complexity of the country. For example, funding agencies involved in RWA perceive collaboration with FNB as a strategy to engage in conservation work in Bolivia. Funding agencies perceive FNB to have enough social and political assets to work in Bolivia. The interview excerpt below, with a funding agency representative, highlights the evaluation process for grant applications and how the decision to support RWA was reached.

They [grant-making office] made some audits of the institutions that applied and at the end they decided to support FNB because FNB has been working for many years in Bolivia. Moreover, the other important thing that we really understood, and we saw that on Monday when we got to this public event, is that they have very good relationship with the Mayors. That is very difficult to achieve in Bolivia. [FA Rep. 1]

The above interview illustrates that funding agencies recognize that FNB appears to be able to build good relationships with the different actors – especially considering views that it is difficult to have a good relationship with political actors like the Mayors. Additionally, considering that the RWA governance approach appears not to challenge existing power relations among actors, as seen in the lack of local stakeholder participation in the design and planning of RWA, this may have contributed to the existing good relationship between the Mayors and FNB, thereby promoting trust between them (from an informal conversation). Furthermore, the public event that the funding agency representative above (FA Rep. 1) mentioned is one of the social events that is organized by FNB on occasions to further promote RWA. The events are open to communities and actors involved in RWA. The roles of these events include promoting buy-in of the RWA among the concerned actors. The opportunities for deliberations offered by these events and the occasional presence of funding partners, as suggested by FA Rep. 1 above, appears to enhance positive views about RWA.

4.4 Discussion and conclusion

This study shows the ways by which an emerging PES-like governance approach (RWA) is responding to a common critique of PES, in terms of participation of different actors in water governance and the role of a boundary organization (FNB) in shaping opportunities for and strategies of participation of different actors as they pursue desired objectives. In this context where local community stakeholders, water cooperatives, municipal governments and funding agencies, seek improved community access to water, I arrive at the following conclusions: i) Water governance through RWA thus far tends to reinforce prevailing power relations, with powerful actors such as FNB, water cooperatives and municipal governments participating more.

- ii) As a boundary organization, FNB performs a number of specific functions as it relates to relationship and trust building, which are crucial to understanding participation in this context.
- iii) The actors involved in RWA appear to hold positive views about community access to water under the RWA governance approach. The positive views primarily relate to actors identifying RWA as filling a gap in governance in Bolivia.

Firstly, in terms of how RWA responds to the challenge of participation in PES, my analysis shows that RWA as a governance approach in Bolivia appears to follow similar trends identified elsewhere in the literature. Specifically, in the sense that participation tends to favor more powerful actors. In Bolivia, RWA tends to favor the participation of FNB, water cooperatives and municipal governments while the participation of local community stakeholders remains insufficient. Through RWA, FNB coordinates interactions among the water cooperatives, municipal governments, local community stakeholders and funding agencies. In the context of PES in Bolivia, there is a common perception among communities that PES tends to favor participation of powerful actors, which lead to the relegation of local interests. For example, communities hold the view that the conservation agenda of the Noel Kempff Climate Action Project (NKCAP) in Bolivia precludes livelihood sustenance because community access to forest-based resources are outlawed (Robertson and Wunder 2005). In the case of RWA in Bolivia, Bottazzi et al. (2018) suggest that communities understand the role of protecting catchment areas in water provision and tend to support the RWA approach. My findings (e.g. paraphrased quotes from Municipal Rep 3 that the communities applauded them when they learnt the municipality is commencing RWA initiatives; a local community stakeholder who stated that RWA is of great help even if its modest comments from donor representatives

about their trust in FNB's capability to succeed in Bolivia), further suggest that despite the similar trend in participation between PES and RWA, the way FNB coordinates participation in RWA may have contributed to a better view of RWA. FNB coordinates participation of the actors categories across the different phases of RWA implementation by following existing local norms of negotiation and relationship and trust building (Rodríguez-Dowdell *et al.* 2014). These three factors are clearly demonstrated through actor relations that I described through my findings. About local norms of negotiation, the 2009 Bolivian Constitution asserts "the state as the administrator of all natural resources" (The Government of Bolivia 2009, Article 349: p122), so as to ensure that resources governance approaches are sanctioned. Moreover, the 2009 Constitution is one of the government's legislative reforms that discourages some resources governance approaches, such as PES. In this sense, the implementation of RWA starts with negotiation processes between FNB and the government administrators at the local level, i.e. the water cooperatives and municipal governments. . Receiving their support is necessary for implementation and building relationship and trust. Their support is documented through contracts (discussed below). Furthermore, the relationship between water users and upstream water providers (the local community stakeholders) illustrates the traditional concepts of negotiation and relationship building, as both parties need to work together to enable the provision of clean water.

Secondly, with regard to the role of FNB as a boundary organization, the central objective of FNB is to build relationships and trust with and among the involved actors (Berkes, 2009). FNB pursues this objective by promoting the development of local institutions. Considering that concerned actors must trust local institutions, FNB promotes the use of local funding

mechanisms and local technicians in RWA. A local funding mechanism is used to target long-term sustainability of RWA projects (Asquith and Vargas 2007), and the use of local technicians is an attempt to ensure that local conditions (economic, social and political) and how these conditions may shape RWA, are considered in RWA governance (Sinha 2012). Ribot (2002: p1) emphasizes that “when local institutions such as elected local governments are chosen, resource governance is strengthened because promoting local institutions is a key mechanism for achieving greater equity”. Other aspects of the strategy pursued by FNB to build relationships and trust includes the use of meetings and contracts. The meetings serve as a way to enhance understanding of the objectives of RWA and interactions among the involved actors. In addition, meetings between representatives of municipal governments, water cooperatives and FNB precede the actual signing of contractual agreements. The contractual agreements including the tripartite contracts between the water cooperatives, municipal governments and FNB, and the individual contracts between local community stakeholders and water cooperatives, act as boundary objects in RWA (Mortenson and Clapp 2011). The tripartite contract and meetings help to establish political support for RWA implementation. The individual contracts are done with the water fund with the leadership of the water cooperatives and not FNB to ensure i) local community stakeholders are confident that their lands are secured with a local institution ii) to facilitate a sense of local ownership of RWA iii) to start building a long term relationship between water cooperatives and local community stakeholders, so that RWA could continue upon withdrawal of FNB after the termination of tripartite contractual agreements.

Across the three municipalities where this study was conducted, the potential for RWA to continue after the departure of FNB offers an avenue for comparison. This relates to my

observation that the local institutions are developed to varying levels across the three municipalities. For instance, Comarapa appears to have water cooperative representatives who are more able to obtain state-level support for the implementation of RWA than El Torno and San Carlos. From my observation during meetings at the municipalities, representatives of water cooperative in Comarapa tend to identify that they have good relationships with the Department of Santa Cruz and would and/or could approach them to support RWA implementation. This tended not to be the case in San Carlos and El Torno. In these locales, representatives of water cooperatives tended to have limited expectations about receiving support from the Department. The knowledge mobilization activity conducted in El Torno lends support to this claim (see Appendix F). The implication of the level of support that water cooperatives perceive they can receive from the department appears to influence their level of confidence in the continuity of RWA. For Comarapa, there appears to be a greater sense that they can achieve the continuity of RWA upon the departure of FNB than El Torno and San Carlos. In other key areas (e.g. in terms of level of engagements in RWA across actor categories and uncertainties about water availability), these municipalities tend to show similarities.

Thirdly, despite the participation asymmetries that I discussed above; the actors involved in RWA perceived community access to water to have improved under RWA. Previous scholarship has suggested similar findings (e.g. Bétrisey et al. 2018). My analysis provides insight about this contradiction, (e.g. lack of community participation at the designing and planning phase of RWA and perceived positive outcome). On the one hand, the result suggests that through the coordination, negotiation and moderating roles of FNB, the RWA governance approach focuses on the requirements that are needed to pursue improved community access to water (which I

discussed in detail at earlier sections). On the other hand, I argue that there is an existing gap in governance that RWA is filling as it relates to water governance in Bolivia. My findings show that perceptions about positive outcomes, especially from community stakeholders and water cooperatives, is closely related to recognizing RWA efforts to tackle water challenge, as oppose to perceptions that the government lack capacities to tackle the challenge. Prior work (e.g. by Coleman, 2012; Marston, 2015; Nickson and Vargas, 2002) have reported similar finding in Bolivia. More specifically as it relates to views among communities that the state tend to be incapable of tackling or tend to neglect issues of inadequate community access to water. While water-related objectives are commonplace in policies for resources governance in Bolivia, emerging PES-like approaches like the RWA appear to gain a more positive reception from communities. This supports the argument that “at a minimum, to be able to speak of governance, one should be able to identify not only a coherent set of shared goals, but also evidence for a certain degree of achievement in reaching the stated goals” (Komori 2012: p225).

This study illuminates how a boundary organizations, the FNB, coordinates the participation of multiple actors through negotiation, building relationships and trust and in so doing, attempts to tackle some of the common critique of PES outlined above. However, I recognise that there are other consequential elements that were not considered as part of my research and that provide fruitful avenues for future research. For example, the extent to which the RWA addresses issues of participation would benefit from a deeper examination of the politics of difference, including gender and ethnicity (Harris, 2006; Kosek, 2006). These and other authors argue that examining how participation is embedded within the politics of difference and how it intersects with other power dynamics (e.g. as seen in my case where local norm of negotiation favors powerful actors

and in turn, shapes approach to participation) (Hawkins & Ojeda, 2011), is essential for obtaining a full understanding of participation in resource governance. Additionally, while there are benefits to collaborative research designs, there are also limitations, especially as it relates to the collaboration with FNB. Potential shortcomings include the ways by which my access to and interactions with the participants (e.g. local community stakeholders) were shaped by the FNB. On the one hand, being introduced by FNB helped to validate status as a researcher. On the other hand, participants might have filtered their feedback about RWA's approach and FNB's roles in consideration to the researcher having a relationship with FNB. These realities of collaborative research were considered and ameliorated to the extent that they could be by engaging some participants in the absence of FNB, and by triangulating interview data with participant observation. I propose that further opportunity for inquiries include fieldwork covering a greater number of cases and is conducted by a Bolivian (a Bolivian is less likely to need an intermediary to engage with participants and this could improve the reliability of the data).

Combined and considering the caveats just indicated, this analysis of participation of multiple actors in emerging PES-like governance approaches suggests some insights and considerations for adaptive governance more broadly. For example, Lejano and Ingram (2009) note that sufficient interaction between different actors working at different scales of governance is needed to forge sustainable relationships among them. I provide further nuance to this assertion by recognizing that enough interactions may not always coincide with equal level of participation across actor categories throughout all the stages of a project cycle, especially in contexts that are characterized by i) limited resource accessibility, which requires urgent interventions ii) controversies among actors about suitable governance approach and iii)

entrenched power asymmetries. In this type of context, processes of learning-by-doing are important to enable the delivery of desired outcomes (Carlsson and Berkes, 2005). Additionally, as suggested through my analysis of RWA, the processes of learning-by-doing included learning how best to engage (recognize, interact and build relationship) with existing power-relations.

Through the analysis, I also draw attention to the increasing roles of environmental NGOs in natural resources governance more broadly. Environmental NGOs (ENGOS) carry out roles including being a ‘watchdog’ that monitors actions related to the environment and also pursue legal actions for environmentally harmful activities – usually against the state and private corporations (Ayana, Arts, and Wiersum, 2018). Other roles include espousing environmental education and promoting collaborative governance to tackle imminent environmental challenges. In the Bolivia case, ENGOS, including FNB, Friend of Nature and Chiquitana Forest Conservation Foundation are increasingly tackling resources governance challenges such as inadequate community access to water. As discussed earlier, there are gaps in governance that are being filled by FNB. This brings forward an important issue: Given the transient nature of ENGOS in term of their activities and objectives (as alluded to by FNB that noted the temporal nature of their leadership of RWA to ensure an independent local institution), and the limited avenues for ENGOS to diffuse existing power relations, as suggested in this investigation (also see Cronkleton et al., 2018), are these roles appropriate for ENGOS? What criteria need to be met for ENGOS to take up these roles? My question is not intended to trivializing the roles and contributions of ENGOS. Several investigations have established the relevance of ENGOS (e.g. Bernstein and Cashore, 2012; Reimann, 2006). I am putting this forward because I recognize that

in contexts where governments are unable to drive desired change for communities, a transient solution continually puts local sustainability at risk.

Chapter 5: **Conclusion**

This thesis explores the politics of participation of diverse actors in multilevel resource governance, including how institutions and institutional arrangements shape participation across scales, as actors pursue access to decision-making about resources including forest and water. Chapter 2 makes visible how structures within the World Conservation Congress (WCC) shape the participation of different actors in debates about forest and landscape restoration (FLR). This chapter demonstrates how prevailing and uneven structures of power shape dominant visions for resource governance at the international scales, and the nature of participation of Indigenous Peoples in FLR decision-making. Chapter 3 describes the extent to which past national water governance policies recognize community participation and shape community access to water in Bolivia today. At the regional scale, Chapter 4 focuses on how an emerging institution and institutional arrangement are shaping opportunities for and strategies of participation of different actors in an initiative for water governance. Finally, this concluding chapter synthesizes the main findings of the three data chapters as they relate to the thesis objectives.

5.1 Summary of findings

5.1.1 Objective 1: Deepen understanding about the nature and extent of participation in decision-making in resource governance for landscape restoration and water as it occurs at multiple scales

This thesis highlights participation asymmetries across actor categories, with powerful actors such as government representatives participating with more influence than local actors, such as Indigenous Peoples. Chapter 2 shows that representatives of government agencies, international non-governmental organizations (INGOs), and some non-governmental organizations (NGOs),

have more access than Indigenous Peoples to participate in debates and decision-making about FLR. Chapter 3 highlights that across two water governance eras, there are contradictions between improvements in enacting policies and improvements realized in practice, and how policy efforts tend to favor the participation of actors operating at national and international scales. Chapter 4 further demonstrates how prevailing participation asymmetries are upheld among actors, with government representatives and FNB dominating the Reciprocal Water Agreement (RWA) institutional arrangement.

Based on the typology of participation developed in Chapter 2 (Table 2.1), the participation of local actors tends to occur within the category of passive forms of participation (e.g. nominal participation to activity-specific participation as illustrated in Chapter 2, 3 and 4). At the international scale, there is a prevalence of activity-specific participation as it relates to Indigenous Peoples. For example, Chapter 2 shows that spaces characterized by more conventional conference-like presentations, which coincides with the way many of the events were organized, tend to limit Indigenous involvement to activity-specific participation. At the regional and national scales, the participation of local actors (e.g. communities in Chapter 3 and local community stakeholders, in the context of RWA in Chapter 4) fall within the category of passive forms of participation. Chapter 3 shows that despite efforts to advance declarations in policies in the LuW nexus, which aim to promote community participation in water governance, there are key limitations including policies that favor international and/or private agencies over Indigenous Peoples (e.g. communities tend to be passive recipients of water services from the private/international water cooperations who are empowered by Water Laws to control and solely decide prices and rates of water services). Chapter 4 indicates how local community

stakeholders are not involved in the design and planning phases of RWA, while more powerful actors such as representatives of municipal governments, water cooperatives and FNB take the active role in shaping the early phases. Furthermore, at the international scale, Chapter 2 indicates linkages between different forms of participation and the spaces where they are likely to occur. Passive forms of participation are more likely to occur in invited and claimed spaces, while active forms of participation tend to occur in collaborative spaces. At the regional and national scales, Chapter 3 and 4 highlight the roles of broader policies and legislative framework in limiting the participation of local actors in decision-making, which in turn have implications for access to resource benefits. More specifically, insufficient policy coordination across key sectors leads to difficulties with leveraging policies to achieve outcomes such as community participation and access to water (Chapter 3), and legislative framework such as the Bolivian Constitution inform participation asymmetries that favor government representatives (Chapter 4).

5.1.2 Objective 2: Examine the influence of both longstanding and emerging institutions and institutional arrangements on participation of different actors (e.g. Indigenous Peoples and Local communities, state actors like agencies and municipal governments, NGOs and INGOs) as they pursue different objectives (e.g. inclusion of local perspectives and enhanced community participation in water governance).

In line with the conceptual grounding of this thesis, I view the WCC, which has an objective of promoting the participation of diverse actors in forest governance, as an example of longstanding institutional arrangement. The IUCN and IUCN partners, who organize the WCC and the spaces of participation for FLR debates at the WCC are viewed as longstanding institutions (Chapter 2). The RWA illustrates an emerging institutional arrangement that structures the participation of

diverse actors as they seek to enhance community access to water. The Fundación Natura Bolivia (FNB), an NGO that coordinates the RWA, is viewed as an emerging institution (Chapter 4). Findings across the two study contexts suggest that both longstanding and emerging institutions/institutional arrangements have the tendency to reinforce prevailing power relations. This in turn leads to participation asymmetries among actors. The approaches that institutions adopt for designing institutional arrangements, including spaces of participation, help to understand how concerned actors view meaningful participation of local actors in resource governance.

At the international scale, powerful actors such as INGOs and some big NGOs tended to hold limited views about what constitute meaningful participation. This was illustrated by how powerful actors design spaces of participation for FLR debates in ways that limit opportunities for local actors to participate in FLR decision-making (Chapter 2). For example, powerful actors tend to organize more conventional conference-style events that feature presentations in form of speeches and panel discussions. These types of events often limit Indigenous Peoples to activity-specific participation. Conversely, spaces that are co-designed and co-convened by Indigenous Peoples appear to be where interactive participation among actors occurs. This suggests that institutions and institutional arrangements, by either design, omission or negligence, will inspire and shape different forms of participation across actor categories.

At the regional and national scales, Chapter 4 highlights how approaches to designing institutional arrangements shape opportunities for local participation in resource governance. Under the coordination of FNB, the RWA institutional arrangement tends to favor the

participation of water cooperatives and municipal governments while the participation of local community stakeholders is limited (Chapter 4). Findings from this thesis show that, although there appeared to be some indications that FNB recognizes the importance of promoting meaningful participation (e.g. as shown by the objective of promoting local institution to enable ownership of RWA process on the long term), the privileging of powerful actors at the preliminary stages of RWA reinforces existing power relations.

Chapter 3 and 4 deepen empirical understanding about how PES and PES alternatives, as institutional arrangements are seeking to enhance local participation and deliver ecosystem services, such as water. Chapter 3 highlights controversies among actors about the relevance of PES and the emergence of alternatives such as JMAM and PES-like approaches. Findings suggest that PES-like approaches have potential to enhance community access to water in the Bolivian water governance context, if institutional arrangements that aim to support their implementation, can be characterised by enhanced participation of non-state actors, traditional systems of water governance, and capital investments that are espoused by local institutions. Through a focus on the RWA institutional arrangement (a PES-like approach), Chapter 4 demonstrates how FNB seeks to promote these characteristics in the context of RWA (e.g. using local staffs to encourage inclusion of local and context relevant perspectives in RWA technical activities and use of local funding mechanism). Relatedly, FNB can be understood as boundary organizations that structure participation of actors to enhance community access to water. FNB does these by pursuing relationship and trust building, using mechanisms such as promoting the development of local institutions, use of meetings and contractual agreements.

5.2 Original contributions to advancing understanding about participation in multilevel governance

5.2.1 Roles of ENGOs in resource governance

Natural resource governance debates continually draw attention to the roles of ENGOs in governance (Ariti et al., 2018). Findings from this thesis are consistent with this trend. More specifically, this thesis highlights the roles of an ENGO in an emerging institutional arrangement that seeks to enhance community access to water in Bolivia (Chapter 4). The presence of ENGOs in developing countries is receiving more attention in literature (e.g. Saarilahti 2006; Ménard 2013; Ayana, Arts and Wiersum, 2018). For some ENGOs, the primary goal is to challenge the status quo, including power asymmetries that contribute to the disenfranchisement of communities (Rodela, Udovč and Boström, 2017). For others, the focus is on building relationships within existing hierarchies of power, while seeking to attain community-relevant outcomes (Ayana et al., 2018). Chapter 4 suggests that FNB, based on the analysis of its coordinating roles in the RWA institutional arrangement, belongs in this second category of ENGOs. Chapter 4 further suggests criteria that may help understand how and why an ENGO may focus on relationship building with existing power hierarchies as opposed to challenging it. These criteria include limited resources accessibility that requires urgent interventions, controversies among actors about suitable governance approach and entrenched power asymmetries that are partly sustained by local norms.

In resource governance contexts characterized by limited resources accessibility that requires urgent interventions, the roles and presence of ENGOs tends to increase to fill this gap. Chapter 4 demonstrates how communities perceive the state to lack the capacity to tackle challenges of

community access to water, and how this perception is linked with relatively positive views about the roles of an ENGO in Bolivia. This claim is further supported by conversations during the knowledge mobilization meeting in El Torno, where participants shared the view that the state appears to have limited understanding about how to tackle inadequate community access to water and is not interested in supporting the RWA implementation (Appendix F). More broadly, studies have suggested that ENGOs are more able to build trust among local actors (e.g. Indigenous Peoples), and in turn, could leverage this element of trust for tackling socio-environmental dilemmas (Cook et al., 2017).

Identifying suitable governance approaches for natural resource challenges such as inadequate community access to water is often controversial in areas that are prone to water scarcity, as demonstrated in Chapters 3 and 4. This is especially the case in contexts with colonial histories, like Bolivia (Marston, 2015). Resource governance approaches that are espoused by international actors tend to be closely scrutinized by governments, as seen in the case of PES in general (e.g. Pascual *et al.* 2010; Martin-Ortega *et al.* 2013; McDermott *et al.* 2013; Bétrisey *et al.* 2018). This has led to policy responses from the government that assert the state's control in resource governance and interventions in places like Bolivia. Generally, ENGOs that are able to maintain good relationships with state authorities are more likely to be able to shape resource governance interventions on the ground (Ariti et al., 2018). For example, Chapter 4 suggests that FNB pursues building good relationships with water cooperatives and municipal governments as a way to promote the implementation of RWA on the ground.

In contexts where entrenched power asymmetries are connected in some ways to local norms (e.g. local norms of negotiation), a key difficulty is determining how ENGOs can interact with existing actors and build new relationships in an attempt to implement needed interventions. For example, in the case of RWA implementation, Chapter 4 suggests that communities tend to engage in initiatives that they perceive to have already been sanctioned by local leaders such as officials of water cooperatives. This appears to partly contribute to the unequal participation in RWA decision-making, as water cooperatives and municipal governments are more involved at the early stage of RWA governance. As demonstrated in Chapter 4, relationships and trust building is a core function of ENGOs. Building relationships and trust with actors operating at the local, regional and national scales requires attention to local norms (e.g. local norms of negotiation). In this context, ENGOs tend to approach the development of institutional arrangements for needed interventions, including how participation is structured, in consideration to local norms (Chapter 4). In addition, Chapter 4 is consistent with the argument of Agrawal & Gibson, (1999: p 639) that “it is important to recognize that not all local institutions can be changed in desired directions through an external intervention. Especially difficult to change would be deep-seated informal norms.”

The RWA-Bolivia case, as described above (e.g. where entrenched power asymmetries is partly linked to local norms), contributes to further understand suggestions from Andersson (2013) as it relates to associational choices made by communities that are confronted with limited access to resources. Communities make decisions about their associations, who they support and with whom they forge partnerships primarily based on trust. Trust tends to come from perceived stability and reliability of the concerned entity and in relation to how such entity might shape

enhanced community access to resource benefits. In other words, Chapter 4 shows that perception is important and perception is influenced by what is actually accomplished, even if modest. Yet, in relation to the increasing roles of ENGOs in resource governance, a contradiction remains. This relates to the transient nature of ENGOs (which I explain in Chapter 4) and views that ENGOs positively shape desired outcomes in certain contexts.

5.2.2 Participation in resource governance

In the context of resource governance, this thesis analyses how participation is a multilevel and networked process and draws attention to the material and symbolic aspects of spaces of participation. I developed a typology of participation to consider the linkages between gradations of participation based on different levels of power and spaces where the participation is likely to occur (Chapter 2). Additionally, I examined how institutions and different levels of power shape opportunities for and strategies of participation of different actors in resources governance at regional and national scales (Chapter 3 and 4), and international scale (Chapter 2). This dissertation makes an empirical contribution to understanding how power relations among diverse actors manifest in resource governance and how participatory processes (e.g. through the way spaces of participation are designed and varying degrees of actor's involvement in interventions) can paradoxically entrench existing inequalities across governance scales (Chapter 2, 3 and 4). At the international scale, Chapter 2 suggests that inequalities due to power relations manifest in big event spaces, which are often characterized by conventional presentation formats led by powerful actors such as representatives of INGOs, big NGOS and state agencies. Indigenous Peoples tend to view the ability to gain and maintain access to these big event spaces as one of the key approaches to shaping decision-making at the international scale. At the

regional and national scales and in the context of project cycles, Chapter 4 advances understanding about how power shapes participation and the implication of existing gaps in governance on perceptions about participation in a multilevel governance context.

In contexts where interventions may contribute to participation inequalities (as described above in the case of Bolivia), gaps in governance tend to obscure or limit attention to consequences of participation asymmetries. A key role of governments is protecting and supporting community livelihoods (Jagger et al., 2014). In contexts where governments are incapable of adequately supporting community livelihoods, including access to the resource benefits, gaps in governance tend to occur (e.g. Lalika *et al.* 2015; Mansourian 2017; Thompson 2018). For local communities, gaps in governance often translate into negative impacts, including inadequate water supply. In areas with such negative impacts, communities tend to readily associate with other entities, which in their view, seek to address the impacts. For example, findings from Chapter 4 suggests that some of the involved actors including local community stakeholders appear to accept or downplay lack of community participation at the early phases of RWA implementation because they perceive that RWA, unlike the incapacities of the government, is improving community access to water. In this sense, there is a tendency for an institutional arrangement to represent community participation in a less significant way while pursuing other community-relevant outcomes. Whether this perception about improved community access to water through RWA is obtainable or not, my finding suggests that the gap in governance facilitated the acceptance of RWA (even if the outcome generated by RWA is relatively modest), including its participation asymmetries, as an alternative. The tendency for what I describe here to occur is higher in contexts where dominant policies (e.g. the Constitution and Water Law)

limit approaches to resource governance at the local level. Limitation to resource governance in this sense can result from how authority is exercised (including who has the authority) and how authority shaped the resource that is available for resource governance (Agrawal & Gibson, 1999). As such, participatory processes, like that of the RWA, can paradoxically entrench existing inequalities. In the RWA institutional arrangement, powerful actors, including representatives of municipalities and cooperatives, need to sanction the extent and form of community engagement during the tripartite meetings at the first stage of the RWA implementation. Thereafter, local community stakeholders are able to decide duration of contract signed and the type of in-kind compensation they receive – all of which fall within the available options that were first sanctioned during tripartite meetings.

5.3 Contributions to policy and practice: (Objective 3) Identify recommendations for designing and implementing participatory processes and institutional arrangements for resource governance, in ways that address persisting difficulties whilst ensuring meaningful local participation.

A key question for policy and practice in resource governance is how to identify governance approaches for developing interventions that enable positive transformation for communities (Andersson, 2013). This thesis identifies key recommendations that proponents and designers of spaces of participation and institutional arrangements should consider for ensuring a move towards a meaningful participation of local actors in resource governance. As illustrated in this thesis, proponents and designers of spaces of participation tend to be powerful actors. These include environmental NGOs, intergovernmental organizations and states. Based on the findings across the three data chapters, I highlight the following key recommendations:

1. Actors or institutions with responsibility for designing and implementing participatory processes need to seek understanding about how local actors, including Indigenous Peoples, view spaces of participation in terms of relationships between material and symbolic aspects of spaces (Chapter 2). Material aspects include the size/capacity, location, and support facilities available with a particular space. Symbolic aspects refer to the ways in which different spaces are perceived and serve to reinforce or transcend prevailing structures of power. For example, given linkages between international forums as a key site of global resource governance and resource governance of the ground (e.g. case of the WCC and the Bonn Challenge), Chapter 2 illustrates how Indigenous Peoples connect room sizes to the presence or absence of powerful actors and access to shape decision-making process at the international scale. In this context, Indigenous Peoples associate bigger spaces with better access to shape decisions because they hold the view that powerful actors, including government representatives, tend to be present there. As such I recommend that requirements for designing and implementing participatory processes, in consideration to procedural equity, should include broad inclusion of local actors as active participants (e.g. as keynote speakers) in spaces where other power actors are more likely to be present. This could enable interactive debates that are needed to address issues of procedural equity.
2. Focusing on the participatory design of spaces and intentional ‘engineering’ perspectives with Indigenous leadership as an approach to meaningfully give voice to plural values and perspectives in decision-making (Chapter 2). Participatory design of spaces means that proponents and designers of spaces of participation (e.g. policy-makers) need to implement participatory processes by focusing on all concerned actors as users of the

space and not just powerful actors. On the one hand, this ensures that concerned actors, especially those who will be most affected by policy actions, contribute to design processes. On the other hand, this relates to ensuring intentional engineering perspectives (Ehn, 2008) in the sense that; the designing of participatory processes commences with seeking understanding about existing power relations (e.g. how does power operates within spaces and who have the tendency to dominate?), and approach the technical aspects of spaces of participation with consideration of requirements that enhance meaningful participation for marginalized groups. Considering the foregoing, this thesis identifies some principles that may promote enhanced equitable resource governance. These include,

- i. Interactive participation across the different scales of governance. This can occur in the form of deliberative and shared learning processes that occurs in collaborative spaces.
- ii. Local actors such as Indigenous Peoples hold enough power to gain and maintain access to decision-making process.
- iii. Knowledge that drives decision-making is co-produced by all concerned actors.

Following the above, this thesis argues for local leadership for designed processes. While my analysis on this specific issue focuses on governance at the international scale, findings in Chapters 3 and 4, which illustrate resource governance at the national and regional scales, support this claim (e.g. development of local institution as a goal in RWA). There is also a growing body of evidence in support of local leadership for the design and implementation of participatory processes and institutional arrangements, at national and regional scales of governance. These include Agrawal & Gibson (1999);

Andersson (2013); Méndez-López *et al.* (2014); Rantala, Hajjar and Skutsch (2014); Secco *et al.* (2014); Guillaume (2017) and Cronkleton *et al.* (2018). As discussed in earlier chapters, although this study did not fully interrogate issues of intersectionality (e.g. gender), in addition to promoting local leadership, efforts towards achieving a fulsome or meaningful participation will need to pay attention to the politics of differences at the local level (Morales & Harris, 2014). This is key because local leadership may not necessarily translate to procedural equity for local communities, given that communities are characteristically heterogeneous (Agrawal & Gibson, 1999; Poteete & Ostrom, 2004; Varughese & Ostrom, 2001). That a community is characteristically heterogeneous means that views and interests of actors with a community vary across individual identities like gender. In this sense, the aspect of representation while constituting local leadership for designed processes is important (Kaijser & Kronsell 2014). Paying attention to representation means that one is aware that views of actors about extent to which a space or a designed process supports meaningful participation partly depend on how they are represented within the space and their views about power relations among all represented actors. This means that some actors (within the same community) may not view a designed process with local leadership as one that enhances fulsome or meaningful local engagement or procedural equity. Consequently, meaningful local leadership in designed processes require attention to how the variations that exist at the community level can be given voice and represented in the design process (Cornwall, 2004).

3. Strengthening institutional arrangements for on-ground interventions through intersectoral coordination (Chapter 3), promotion of locally sourced and managed

financial support (Chapters 3 and 4), designing participation to focus on process and desired outcomes (Chapters 2, 3 and 4), and optimizing the roles of boundary organizations or institutions through trust and relationship building (Chapter 4). Intersectoral coordination helps to stimulate coordinated engagements across institutions where there are overlaps of responsibilities and objectives, such as the objective of enhancing local participation in decision-making. Intersectoral coordination promotes the development of holistic and integrated actions for resources governance on the ground (Chapter 3). Locally sourced and managed financial support helps to enhance the sustainability of governance interventions on-the-ground by giving ownership to local actors (Chapters 3 and 4). Designing participation in consideration to both process and desired outcome requires attention to the underlying concept of adaptive governance, ‘learning-by-doing’. A process of learning-by-doing helps to advance understanding about how best to structure participation in contexts characterized by uncertainty (e.g. in Chapter 4). In contexts that are characterized by limited resources, power asymmetries and controversies about governance approaches, boundary organizations or institutions responsible for coordinating the relationship among actors may need to prioritize relationship and trust building in resource governance.

5.4 Strengths

A major strength of this research is the exploration of participation across scales of governance. Given the intricacies of networked multi-level governance where actors, ideas, norms and practices operate across scales, attention to scale is crucial. In this thesis, attention to scale is built upon a rich foundation of new empirical insights drawn from multiple methods (including

interviews, document analysis and participant observation). Engagement with the issues of participation in multi-level and multi-site contexts also provide the following lessons;

- Debates and decision-making at time-condensed fora such as the WCC have great implications for Indigenous Peoples and communities on the ground. The Bonn Challenge and debates about definition of forests that ensued at the WCC illustrate this point.
- Contexts such as Bolivia that are characterised by attempts to disengage from or limit interactions with governance approaches shaped by international actors, still interact with processes and platforms at the global level. For example, representatives of FNB, a Bolivia state agencies called FUNDESNAP and DANIDA (one of the key donors for the JMAM) were present at the WCC 2016.
- Perceptions of actors about governance/ decision-making processes/policy intervention are important, even if the outcomes generated are modest.

Furthermore, the RWA-Bolivia case illuminates the ways by which RWA seeks to respond to a common critique of PES, in terms of participation of different actors in water governance. My findings suggest similar trends of participation inequalities in PES and RWA. This remains a weak point for RWA as local communities are not fully included in the designing and planning phase of RWA implementation. Nonetheless, one areas where RWA appears to have progressed relates to the strategy that FNB use in coordinating participation of the actors across the different phases of RWA implementation. My study shows that a key lesson for future interventions for water governance relates to the coordinating role of of a boundary organization, FNB. FNB coordinates interaction among the actors by following existing local norms of negotiation, relationship and trust building. This approach afforded RWA to exist without contradicting some

key elements of dominant policies in Bolivia. More specifically, relationship between the actors within RWA tend to follow the requirements of the state while seeking to promote the development of local institutions in the three municipalities. There is a key aspects of local institutions where two of the municipalities appears to be weak (e.g. Comarapa appears to be more able to get state-level support for the implementation of RWA than El Torno and San Carlos – as discussed in earlier chapter). Yet, FNB tends to be able to promote the development of other key aspects of local institutions including local funding mechanisms and contractual agreements that are managed by local water cooperatives. Conversely, PES initiatives tend to be commonly critiqued by local actors including Indigenous Peoples due to perceptions that PES tend to relegate local interests. In addition, while debates persists about the nature commodification of PES, FNB tend to be able to argue being a non-PES initiative as the financial elements of RWA is coordinated by local institutions (water cooperatives as the manager of water funds) and source of funding are primarily from community contributions themselves. This funding arrangement seems to reinforce local ownership and trust.

5.5 Limitations

Any chosen methodological approach comes with a set of pros and cons. First, while a collaborative approach enabled me to build necessary relationship with FNB, and to gain access and benefit from local knowledge as earlier noted, my partnership with FNB might have also shaped the responses of research participants. For example, there is a possibility that some of the participants might have filtered their perspectives about the RWA institutional arrangement because of my association with FNB. While this possibility must be taken into account and reflected upon during the analysis, it is also well recognised in social and qualitative inquiry, that

respondents are always making decisions about how to tell their stories to researchers (Holstein and Gubrium 2011). Considering this, the knowledge produced by interviewers and respondents is inevitably co-produced. As understood within a constructivist-transformative research approach, which is used in this thesis, this is the norm for conducting, evaluating and interpreting qualitative research findings.

A second issue relates to the use of a combination of purposeful (Patton 2002) and convenience sampling (Maxwell 2012). While this approach provides the opportunity to capture a rich diversity of relevant perspectives relative to time in the field (e.g. Chapter 2) and availability of resources and access (Chapter 2 and 4), this approach is also limited by its inability to fully capture perspectives that may exist in the two study contexts. Specifically, the perspectives of communities in the downstream are missing in my analysis of water governance through RWA in Bolivia. Though this actor group is not part of the RWA institutional arrangement, their perspectives about RWA may afford additional insights. This provides an avenue for future research.

A third issue relates to what van den Hove (2007) referred to as “non-neutrality of scientists”. I am aware that due to my positionality, I carry with me some bias and prior knowledge which may have influenced my interactions, observations and interpretations. Examples include bias about state and non-state actors’ relationships, and knowledge from prior experiences with organising and engaging in multi-actor deliberative processes at the international scale. To enhance rigour and validity of my claims, I dealt with this issue using the following strategies. For work at the WCC, I cross-checked my observations and emerging interpretations during the

daily research team meetings that occurred during data collection. In the Bolivia study context, in addition to having daily discussions with my assistant to reflect on my emerging understanding of the research issue, I adopted multiple sources of data for triangulation purposes, and conducted a research reflexivity exercise with FNB and research participants (e.g. in El Torno, Appendix F).

Fourth and finally, as an English speaker, my knowledge of Spanish language is a limitation, specifically in the Bolivian context. Though I acquired a B-level language competency after course-works at UBC and intensive Spanish classes in Bolivia, which I did before the commencement of my fieldwork, I still needed the assistance of a native Spanish speaker in the field. As such, this study is open to potential translation effects including misinformation, misrepresentation and bad translation. To reduce these effects, I hired a translator as an intern who was resident with me at the FNB office in Santa Cruz, Bolivia for the duration of my fieldwork. Moreover, the translator has a substantial educational level (MSc in Sustainable Development), which relates well to my research work. Before the fieldwork commenced, I ensured that the translator developed a good understanding about relevant thematic areas that underpin my research, including participation in multilevel governance. After field visits, I evaluated our field notes and found coherence in our observations.

5.6 Future research directions

The following lines of inquiry for advancing understanding about the politics of participation in resource governance arise from this thesis. First, while this research is based on two study contexts, future research could cover a greater number of study contexts. For example, given the

increasing number of institutional arrangements for resource governance at the international scale (e.g. global congresses and fora organized by the United Nations specialized agencies such as FAO and the Global Landscape Forum), future inquiries could examine how different approaches to designing spaces of participation (and participation of diverse actors) shape opportunities for local participation in global governance and delivery of desired objectives. Answers to this question, across a number of cases, could afford opportunities for comparison and enhance robustness in relation to understanding the politics of participation at the international scale of resource governance. Related to this is also expanding the perspectives that the inquiry in Bolivia covered. Future research opportunity includes examining views of downstream communities about if and how the RWA governance arrangement/approach shapes enhanced water access downstream.

Second, the issues examined here could usefully be extended across gender (e.g. for the RWA and WCC) and racial (for the WCC) lines. This follows suggestions by scholars (e.g. Laurie 2011) that research inquiries that have transformative agenda in the context of resource governance should examine issues of intersectionality (e.g. gender and race), and how intersectionality shapes access and participation in decision-making. For example, in the Bolivia context, where more males than females appear to hold powerful positions (e.g. water cooperative officials), it will be important to examine if (and how) participation in water governance are gendered.

Third, it could be a significant empirical contribution for a native Bolivian to examine the RWA institutional arrangement. This could mean undertaking the study with limited ties to any of the

involved actors (e.g. as a Bolivian who is less likely to deal with the issues of trust when interacting with communities, thus, making collaborative research approach with FNB unnecessary) and would remove translation effects.

Finally, following insights from the knowledge mobilization meeting in El Torno (Appendix F), and the impending departure of FNB in the RWA institutional arrangement in the three municipalities, future research is necessary to examine how (and if) the RWA institutional arrangement is transforming under the leadership of local institutions and implications for participation and community access to water.

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Appendices

Appendix A Information about the events attended at the WCC

Event Title	Event Type	Date	Language	Event Organizer	Organizational Affiliations of Panelists/Speakers
Forum Opening Ceremony	Official Congress Ceremonies	2016-09-02	English	Simon Mills IUCN - Forum Team	Alejandro Del Mazo Maza, National Commissioner for Natural Protected Areas, Mexico Alison Sudol, Musician, Actress, Author and Goodwill Ambassador for IUCN (Master of Ceremonies) Erik Solheim, Executive Director, UNEP Brooke Runnette, Executive Vice President, Chief Program and Impact Officer, National Geographic Society Tom Friedman, Foreign Affairs Columnist and Author, The New York Times Sally Jewell, Secretary of the Interior, USA Inger Andersen, Director General, IUCN Irina Bokova, Director General, UNESCO Peter Bakker, President and CEO, WBCSD Naoko Ishii, CEO and Chairperson, Global Environment Facility Edward Osborne Wilson, University Research Professor Emeritus at Harvard
Who benefits, how much? How to adequately measure human welfare impacts in forest conservation initiatives	Pavilion Event	2016-09-02	English	Sven Wunder (CIFOR)	Sven Wunder: Principal Scientist, CIFOR: Measuring forest reliance in rural incomes across the global tropics (Poverty and Environment Network: http://www.cifor.org/pen/) Gill Shepherd: long-term consultant for the Global Forest and Climate Change Programme at IUCN; Senior Visiting Fellow, International Development Department, London School of Economics and Political Science: Measuring the economic benefits of forests David Wilkie: Director of Conservation Support, WCS: Human wellbeing measures in conservation

					Emilie Perge: Economist in the Poverty Global Practice at the World Bank
Natural capital in practice: How can an ecosystem services approach build support for forest landscape restoration and lead to more strategic investments?	Pavilion Event	2016-09-02	English	Bonnie Keeler (Natural Capital Project)	<p>Nadia Vandergriff (joint Master's degree in Environmental Policy at the University of Michigan School of Natural Resources & Environment and Public Policy at the University of Michigan Ford School of Public Policy)</p> <p>Adrian Vogl (senior scientist with the Natural Capital Project)</p> <p>Bonnie Keeler (Minnesota-based Natural Capital Project team, where she is a staff scientist at the Institute on the Environment at the University of Minnesota.)</p>
Restoring resilient ecosystems and communities: Bonn Challenge implementation in the United States	Pavilion Event	2016-09-02	English	Shira Yoffe (US Forest Service)	Tom Tidwell, Chief of the United States Forest Service John Crockett, Deputy Director, Forest Management – USFS

Measuring the conservation values of North American working forests - rationale, metrics, process & partners of the Sustainable Forestry Initiative (SFI)	Pavilion Event	2016-09-02	English	James Griffiths (Sustainable Forestry Initiative)	Mike Parr, Vice President & Chief Conservation Officer, American Bird Conservancy (ABC) Dr Healy Hamilton, Chief Scientist & Vice President for Conservation Science, NatureServe Paul Trianosky, Chief Conservation Officer, Sustainable Forestry Initiative (SFI)
Integrating traditional knowledge into Red List assessments	Knowledge Café	2016-09-02	English	Dr. Rosie Cooney (IUCN SSC / CEESP Sustainable Use and Livelihoods Specialist Group (Chair))	Rosie Cooney (SULi Chair), Rebecca Cross (SULi Programme Officer) Dena Cator (IUCN Global Species Programme)
Sharing Successes and Strategies That Attract New Audiences	Knowledge Café	2016-09-02	English	Luba Mycio-Mommers (Canadian Wildlife Federation)	N/A - no facilitators
Quantifying forest benefits for pro-poor conservation at scale	Pavilion Event	2016-09-03	English	Amy Duchelle (CIFOR)	Sven Wunder – CIFOR Gill Shepherd, long-term consultant for the Global Forest and Climate Change Programme at IUCN David Wilkie, Director of Conservation Support, WCS
Integrating Indigenous Cultural Values and Perspectives into Conservation	Workshop	2016-09-03	English	Samuel GON The Nature Conservancy	Samuel GON (The Nature Conservancy)

Planning Discussion for an "Indigenous Peoples' & Communities' Pavilion: Traditional Knowledge for Climate Action" at UNFCCC COP 22, Marrakech	Workshop	2016-09-03	English	Charles McNeill - UNDP	Charles McNeill from UNDP.
Experiences in forest landscape restoration: From the forests of Central America to the world	Pavilion Event	2016-09-03	English	Ana Eugenia Urena FUNDICOR	Fundación para el Desarrollo de la Cordillera Volcánica Central (Costa Rica) Fundación para el Desarrollo Integral del Hombre y su Entorno, CALMECAC (Guatemala) IUCN Regional Office for Mexico, Central America and the Caribbean (ORMACC) IUCN Forest Conservation and Climate Change Programme ANCON Fundación para la Conservación Guatemala
Zero Deforestation Supply Chains: Opportunities, Challenges, and Lessons Learned	Workshop	2016-09-04	English	Erika Drazen - The Forests Dialogue	Marcelo de Camargo Furtado, Brazilian Coalition on Climate, Forests and Agriculture Dr. Helen Crowley, Kering Omer van Renterghem, Dutch Ministry of Foreign Affairs Barbara Bramble, National Wildlife Federation

Indigenous Peoples' cultural connections to forests: How Indigenous values and health indicators are helping manage invasive species	Pavilion Event	2016-09-04	English	Judy Fisher (IUCN CEM)	<p>Caleen Sisk is the Chief and Spiritual Leader of the Winnemem Wintu Tribe</p> <p>Judy Fisher (IUCN CEM Theme Leader Ecosystems and Invasive Species Coordinating Lead Author IPBES Land Degradation and Restoration Assessment Lead Author IPBES Asia Pacific Assessment)</p> <p>Lori Buchanan (Coordinator of the Molokai/Maui Invasive Species Committee, a project of the Research Corp. of the University of Hawaii)</p> <p>Western Australian Museum</p> <p>Taghi Farvar</p> <p>Leila Vaziri</p> <p>Simon Mitambo</p> <p>Danielle Flakelar (Aboriginal woman of Ngayampaa Wayilwan and Wakka Wakka descent)</p> <p>Bardi Jawi and Nyul Nyul Rangers</p>
Nature protects us: Managing ecosystems for disaster risk reduction (DRR)	Pavilion Event	2016-09-04	English	Camille Buyck - IUCN	<p>Camille Buyck (EPIC) - moderator</p> <p>Udo Nehren - University of Applied Sciences, Germany</p> <p>Shalini Dhyani - CSIR-NEERI (India)</p> <p>Fabiola Monty – IUCN</p> <p>Naoya Furuta – IUCN Japan</p> <p>Dr. Karen Sudmeier-Rieux – UNEP</p> <p>Adam Whelchel</p> <p>Ahmed Senhoury – University of Nouakchott</p> <p>Dr. Fabrice Renaud - UNU-EHS</p> <p>Glenn Dolcemascolo</p> <p>Simone Sandholz</p> <p>Wolfram Lange - Berlin</p>
Halting deforestation in the humid tropics: Implementing 'No	Pavilion Event	2016-09-04	English	Grant Rosoman - Greenpeace International	<p>Grant Rosoman, Greenpeace International</p> <p>Aida Greenbury, APP. Co-chairs of the High Carbon Stock Approach Steering Group</p>

Deforestation' commitments using the High Carbon Stock Approach					
Moving forward with the Red List of Ecosystems: Towards a better understanding of the status of the world's biodiversity	Pavilion Event	2016-09-04	English	Kaia Boe (IUCN)	Irene Zager (Sub-director of Remote Sensing and GIS Research at Provita, Venezuela.) Emily Nicholson (Senior Lecturer at Deakin University,) Rebecca Miller (Programme Officer in the IUCN Red List of Ecosystems Global Ecosystem Management Programme) Tytti Kontula (Senior Research Scientist at the Finnish Environment Institute.)
The Land Use Dialogues: A multi-country platform to gather knowledge and enable responsible business, improved governance and inclusive development in landscapes at risk	Pavilion Event	2016-09-04	English	Michelle Mendlewicz – the Forests Dialogue	Pastor Magingi (African Wildlife Foundation) Gary Dunning (The Forests Dialogue) Chris Buss (IUCN, Forest Programme) Milagre Nuvunga (MICAIA Foundation) Marcelo Furtado (Brazilian Coalition on Climate, Forests, and Agriculture) Michelle Mendlewicz (the Forests Dialogue) Jemmy Chayadi (APRIL group)
Forests: Today and Tomorrow	Pavilion Event	2016-09-04	English	Jodi Chew – US Forest Service	All work for the US Forest Service
Amazon protected areas: responding to climate change	Pavilion Event	2016-09-04	Spanish	Ana Martinez and Sergio Garrido WWF-UICN	Cesar Freddy Suarez – scientist Carlos Mauricio Herrera – ecologist Julia Miranda Londoño. – director of Natural Parks Colombia Marc Hockings - Vice-Chair of the IUCN World Commission on Protected Areas Nigel Dudley – IUCN PAs

The role of nature conservation in achieving the Sustainable Development Goals (SDGs)	Workshop	2016-09-05	English	Erika Drazen International Society of Tropical Foresters (ISTF), Yale University Chapter	Lorena Aguilar, International Union for Conservation of Nature (IUCN) Miguel Calmon, International Union for Conservation of Nature (IUCN) Charles Ian McNeill, United Nations Development Programme (UNDP) Craig Groves, Science for Nature and People Partnership (SNAPP) Isis Alvarez, Global Forest Coalition (GFC) Ruud Jansen, Gaborone Declaration for Sustainability in Africa (GDSA)
Indigenous Peoples Traditional Knowledge and the Promise of Sydney	Workshop	2016-09-05	Spanish	Sotzil	Conservation Int. John Cerda de Cons. Int. Dolores de Jesus – Guatemala representative Adalberto Padilla – IUCN PI Honduras Panama representative. Ramiro – Indigenous Fund coordinator.
Forest and Farm Facility: Local voices from forests for global change	Pavilion Event	2016-09-05	English	Pauline Buffle - IUCN	Andrew Davis, PRISMA, Costa Rica (moderator) Rose Pélagie Masso, Refacof, Cameroon Thomas Jalong, AIPP Malaysia Gustavo Sanchez, AMPB-Red MOCAF, Mexico Joseph Itongwa, REPALEAC, Democratic Republic of the Congo Tanya Conlu, NTFP-EP Asia Cándido Mezua, AMBP, Panama

Strengthening the role of IUCN in saving the world's primary forests: Implementation of Resolution 060	Group	2016-09-05	English	Adriana Vidal IUCN	<p>Jeff Sayer (Professor of Conservation and Development, James Cook University.)</p> <p>Cyril Kormos (Vice-President for Policy at The WILD Foundation and serves as Vice-Chair for World Heritage for IUCN-WCPA.)</p> <p>Jim Thomas (Director of the Tenkile Conservation Alliance (TCA) - an NGO in PNG)</p> <p>John Robinson (Chief Conservation Officer of the Wildlife Conservation Society)</p> <p>Leonard Usongo (Country Director for IUCN Cameroon country office.)</p> <p>Brendan Mackey (professor and director of the Climate Change Response Program at Griffith University, Queensland Australia.)</p> <p>Stewart Maginnis (Global Director of the Nature-based Solutions Group, with overall responsibility for IUCN's work on Ecosystem Management, Forests, Water, Marine & Polar, Gender, Social Policy, Economics and Business & Biodiversity.)</p> <p>Yunus Yumte (a Papuan Forester)</p>
Contact Group on Motion 048	Contact Group	2016-09-06	English	-	Dorian Fougères (NFF) Contact Group Facilitator
5th Sitting of the Members' Assembly	Members' Assembly	2016-09-07	English	Maximilian Mueller IUCN	
Contd: Contact Group on Motion 048	Contact Group	2016-09-09	English	-	Dorian Fougères (NFF) Contact Group Facilitator
7th Sitting of the Members' Assembly	Members' Assembly	2016-09-09	English	Maximilian Mueller IUCN	

Appendix B Semi-structured interview guide for the WCC

1. Can you tell me about your current professional affiliation/role and your expertise in relation to the WCC?
2. What do you hope to achieve through your participation at this event?
3. What is your opinion about the presence and participation of Indigenous reps in this event (name specific event(s) where interviewee participated) and in the Congress?
4. What are your views about the roles of Indigenous Peoples in this event (name specific event(s) where interviewee participated)? What roles should they have?
5. How do you view the coverage of Indigenous issues in the context of forest and landscape restoration (FLR) in this event (name specific event(s) where interviewee participated)?
6. Does this event (name specific event(s) where interviewee participated) meet your expectations in terms of Indigenous participation? (Why? In what areas does it/not meet your expectations)
7. What are your views about the ways and extent to which Indigenous knowledge and interests are included in FLR issues here at the WCC?
8. What do you see as the challenges to including Indigenous knowledge and concerns into forest/landscape restoration governance? (this is a leading question that depends largely on answer to question 6)
9. What needs to be done to address the challenge identified above and who should do it?
10. What should the role/function of forums of environmental governance (such as the WCC) be when it comes to addressing the issue (s) of Indigenous participation and knowledge you have identified?
11. Is there anything else you would like to add?

Appendix C Semi-structured interview guide for key specialists in Bolivia

12. Can you tell me about your current role and expertise in relation to water governance in Bolivia?
13. What do you see as the drivers of change of water governance in Bolivia?
14. What do you see as challenges to water governance in Bolivia?
15. What are your views about the extent to which water governance policies includes community participation?
16. What are your views about past and ongoing policy efforts to meet livelihoods outcomes including participation in policies and community access to water?
17. Is there anything else you will like to add?

Appendix D List of analyzed policy documents related to water governance in Bolivia

1	Environmental Law (Law 1333)
2	National Regulation for Water and Sanitation Services
3	The Constitution 1994
4	Popular Participation Law (Law 1551)
5	System of Sectoral Regulations -SIRESE (Law 1600)
6	Forestry Law (Law 1700)
7	The Agrarian Reform Service Law/INRA (Law 1715)
8	Regulation of Protected Areas (DS 24781)
9	Regulation for Institutional Organization and Concessions of the Water Sector
10	Regulation of Protected Areas (DS 25158)
11	The Municipality Law (Law 2028)
12	Water Service Law/The Sectoral Institutional Framework Law (Law 2029)
13	Water and Sanitation Service Law (Law 2066)
14	The Irrigation Act (Law 2878)
15	Agrarian-reform Law (Law for Communitarian Re-organization 3545)
16	National Holistic Forest Management Plan
17	The Constitution 2009
18	National Forest and Climate Change Strategy (NFCCS)
19	Law on Rights of Mother Earth (Law 071)
20	Plan for the Sustainable Life of Forest
21	The Framework of Mother Earth and Holistic Development for Living Well (Law 300)
22	ABT Resolution 250
23	Supreme Decree 1696
24	Bolivia Sustainable Forest Management (BOLFOR) final report 2004
25	REDD Readiness (R-PIN)-Annex II: Bolivia country experience
26	The Forest Carbon Partnership Facility (FCPF) Readiness Plan Idea Note
27	World Bank Document – Operations Evaluation Department Review of Eastern Lowlands, Bolivia

28	Centro Agua: Water Law in Bolivia
29	Integrated Water Resources Management in Bolivia.
30	USAID Country Profile: Property Rights and Resource Governance - Bolivia.
31	Inter-American Development Bank Document: National Irrigation Program with a Watershed Approach (BO-L1021)
32	IIED Document: Markets for Watershed Services – Bolivia Country Profile
33	UN-Water Global Analysis and Assessment of Sanitation and Drinking Water in Bolivia

Appendix E Semi-structured interview guide for the RWA in Bolivia

1. Can you tell me about your role in relation to the Reciprocal Water Agreements (RWA)?
2. Can you briefly describe the RWA, including governance approach, objective(s), the involved actors, decision-making and implementation process?
3. What are your views about the extent to which the RWA is achieving its objective?
4. What are your views about the extent to which other actors are fulfilling their roles?
5. What are your views about the participation of other actors in the RWA?
6. What are your views about the decision-making process in the RWA?
7. Does the RWA meets your expectations?
8. In what ways do you ensure that the RWA meets your objective(s)?
9. What are your views about how other actors participate in the RWA to achieve their objective(s)?
10. Is there anything else you would like to add?

Specific questions for donor organization representatives

1. What are the roles that your organization play in the RWA?
2. What is the nature of the partnership between FNB and your organization?
3. What are the reasons why your organization supports the RWA?
4. Have your organization partnered with other conservation initiatives in the past or presently supporting other initiatives?
5. If the answer above is Yes, in your opinion, how does RWA differs from other conservation initiatives?

6. Is there anything else you would like to add?

Appendix F Knowledge mobilization activity in El Torno municipality

Right from the conceptual stage of this thesis, I have been interested and planned to have knowledge mobilization meetings with the research participants at the municipalities where I conducted my fieldwork - El torno, Comarapa and San Carlos. The primary objectives of the knowledge mobilization exercise are to provide and receive feedback about key insights from my research and to facilitating research reflexivity. As highlighted in my positionality and research approach, I was interested in exploring how my research activities shape current and future engagements of research participants on-ground.

I planned the knowledge mobilization meetings for the second phase of my fieldwork in 2018. This was done to ensure that I have garnered enough insights from the first phase of fieldwork conducted from February to July 2017. Conducting the meetings after the first phase of fieldwork enables in-depth conversation and affords opportunity to sharpen my interpretations, and further understand some contending issues within the frame of my research context (Morse et al., 2002).

However, my plan to have the meetings in the three different municipalities did not occur for two main reasons: First, close to my arrival for the second phase of my fieldwork, meetings were organized by FNB in Comarapa and El torno, which convened representatives of the water cooperatives, municipalities and local community stakeholders. The meeting was organized to announce the withdrawal of FNB from the RWA institutional arrangement in both municipalities, as formally agreed in the tripartite contracts. This means that water cooperatives will primarily be responsible for RWA leadership and continuity in both municipalities (I discussed how this was an objective of RWA and the implications for perceived sustainability of

RWA in Chapter 3). Second, the feasibility with executing the meeting in San Carlos was confronted with issues related to logistics. More specifically, representatives of the water cooperative and municipality were unavailable in that period.

Based on consideration to logistics and availability of the representatives of actors for the knowledge mobilization meetings, I eventually conducted one in El Torno. While discussing my research intentions with FNB at the beginning of the first phase of my fieldwork in February 2017, the FNB representative I met described RWA in El Torno as “not as old as Comarapa, but they [the actors involved] are more advanced in thinking”.

On 11th April 2018, I sat with representatives of water cooperative (1), municipality (1), Local community stakeholders (2), and FNB (1) at one of the water cooperative meeting rooms in El Torno. Twelve participants were expected but only these five participants were available. There was a bit of tension in that period due to the imminent change in RWA institutional arrangement – and this issue became the focus on our conversation. The representative of FNB acted as the convener of the meeting. The FNB representative did not participate beyond opening the event to allow the other actors to deliberate on the key issue – how will RWA project continue without reliance on FNB?

After the welcome speech and introduction done by the FNB representative, I summarized some key insights from my research at that stage. This included my understanding about how the RWA institutional arrangement works in terms of participation (who, how and when), mechanisms and tools (e.g. contracts and meetings), and the role of FNB. At this stage, I did not

make any recommendation (e.g. in relation to observed participation asymmetries). After this, the discussion shifted to the sustainability of RWA project. I invited the participants to reflect about requirements for RWA to be sustainable. Key points that came out of the conversation relate to;

1. Representatives of local community stakeholders and water cooperative perceived the municipality to have had very little engagement with RWA. As such, they are concerned that RWA will not progress when FNB leaves the institutional arrangement.
2. As it relates to the state, all representatives of actors share the following views;
 - a. State is not interested in supporting RWA
 - b. State does not fully understand the RWA governance approach
 - c. State does not fully understand how to tackle inadequate community access to water.
3. Concerns about the forthcoming election in Bolivia (from late 2019 to 2020) and how the election might influence water governance in Bolivia. As stated by the representative from water cooperative: *“we do not know what the thinking of the new leaders will be”*.
4. The representative from the municipality raised another concern about motivating forested landowners to join RWA. The representative held the view that FNB has a strategy that enables it to meet and negotiate with local community stakeholders, whereas municipalities will find this difficult to achieve. This relates to the perception that municipalities are the least engaged in the RWA institutional arrangement when compared with FNB and water cooperatives (Chapter 4).

At the end of the meeting, it was clear that there is no present strategy in place to ensure continuity of RWA after FNB's departure. The actors appear to be worried about the challenges

highlighted above, but they also indicate their excitement to hold a meeting with FNB that is to take place on 10 May 2018.

An outcome of this meeting appears to be the realization among the actors that there are still a lot of elements that need to be in place. As one of the actors commented after closing the meeting, *“this meeting elicits the need for us to better organize ourselves”*.