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## Contested Territories: Water Rights and the Struggles over Indigenous Livelihoods

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# Contested Territories: Water Rights and the Struggles over Indigenous Livelihoods

## Abstract

This paper examines the threats to Indigenous water rights and territories in the Andean countries. It analyzes how water and water rights are embedded in Indigenous territories, and how powerful actors and intervention projects tend to undermine local societies and indigenous livelihoods by developing large-scale water infrastructure. Three cases illustrate the encroachment process. In Colombia, the Embera Katio people's water territory is colonized by a large-scale hydropower development project. In Ecuador, large-scale drinking water development for megacities aims the water belonging to the Oyacachi community's indigenous highland territory. In Peru, communal water rights of the Colca Valley indigenous peasantry are under threat because of large-scale irrigation development. As the cases show, Indigenous peoples and communities actively contest the undermining and subordination of their water and territorial rights through a myriad of multi-scalar livelihood defense strategies. The challenges that indigenous peoples face to defend their water-based livelihoods are, however, enormous and growing every day.

## Keywords

water rights, policies, politics, hydraulic megaprojects, Indigenous territories, livelihoods, culture, neoliberalism, social mobilization, Andean region

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## Contested Territories: Water Rights and the Struggles over Indigenous Livelihoods

Water is essential to life, livelihoods, and cultural identities. In many places around the world water acquires additional importance for marginalized peasant communities and Indigenous peoples because they commonly have to sustain their livelihood and water security through subsistence economies that, in current processes of globalization, face extremely adverse physical and political conditions. For them, connections between water sources, people, places, production, and identity are crucial and profoundly relate to the particular ways of perceiving, creating, and re-creating “territory”. Dominant classes and cultures, however, tend to impose policies and qualifications on territories and water rights that fiercely clash with local cultures and territorial livelihood strategies (Gelles, 2002; Getches, 2012; Hinojosa, Chummacero, Cortez, Bebbington, & Humphrey Bebbington, 2012; Roth, Boelens, & Zwartveen, 2005). The last decades have shown how water officialdom has embraced mainstream water science, officially endorsed as rational “water culture,” and policies built on universalistic recipes, but failed to consider existing water societies, identities, and practices that have been successful (Boelens & Vos, 2012; Vera, 2011a).

The conflict between cultures, divergent economies, and sociopolitical structures in disputes over water rights is especially well illustrated in Latin America, for instance, in the highland and tropical rain forest communities of Peru, Chile, Bolivia, Ecuador, and Colombia. These countries vary in their professed respect for Indigenous and campesino cultures, but all have enacted water laws and pronounced policies that can abrade local cultures (Bebbington, Humphreys Bebbington, & Bury, 2012; Boelens, Cremers, & Zwartveen, 2011; Boelens, Getches, & Guevara, 2012; Hendriks, 2012). Despite the reality of multiple cultural identities and livelihood strategies, an array of stereotypes about the moral and economic features of peasant communities and Indigenous populations exists. These images have been influenced by racist impulses to discipline the Indians, as well as by motives emerging from progressive, humanistic ideals. Throughout history, paternalistic, apparently benign, attempts to “civilize” Indians by bringing them into the mainstream have been endemic to nation-states that have encountered different cultures and peoples within their borders (Assies & Gundermann, 2007; Baud, 2012).

New water policies in Latin America would seem to offer more room for local Indigenous normative systems and water cultures. While water scarcity and competition for water resources are increasing (from Indigenous and peasant populations, mining, export-oriented agribusiness, the urban water supply sector, and other stakeholders), the idea that problems should be solved with less control from the top down and more local control and initiatives has spawned proposals for less “state-centered” policies. Still, these latest, especially market-oriented, models reflect a universalizing bias by offering blanket prescriptions for the vast diversity of local contexts (Boelens et al., 2012). Further, the approach of “normative decentralization” in water governance often has a privatizing, individualizing aim, clearly working against collective water management by rural and Indigenous communities (Achterhuis, Boelens, & Zwartveen, 2012; Bakker, 2010). As observed by Assies (2012), the neoliberal model and its policies are not just economic, but include a cultural program which is a powerful tool to establish a particular, market-based relationship among the state, the market, and civil society stakeholders (cf. Foucault, 1991). Rather than establishing strategies or policies seeking collective action, new neoliberal policies create competition for water and foster speculation by current users and by new economic agents (Achterhuis et al., 2012). Water rights and water security frameworks in Andean countries’ highland communities and tropical rain forest Indigenous territories differ from privatized models by featuring collective, territorial water rights. As Getches (2012) argues, Indigenous peoples’ ability to perform water-dependent vocations, such as farming, strategizing interconnected livelihood activities, perpetuating territorial cultures, and keeping alive spiritual practices, depends on achieving success in limiting the encroachment of incompatible political, economic, and legal practices embodied in the economic policies and water laws of host nations and transnational actors (Manosalvas, 2012; Roa-Avendaño & Duarte, 2011; cf. Vera, 2011a, 2011b). This challenge has been enormously difficult in most Latin American countries; as Barkin (2009) observes regarding the construction of mega-projects that reconstruct Indigenous territories, “the dams and massive floods are designed to remake topography in a gigantic effort to restructure the region’s economy and place it at the service of international capital. Little consideration is accorded to the

millions of people in communities that have tried to manage these ecosystems and protect their resources, while forging a society and economy that takes the biosphere's needs into account" (p. 10).

This paper analyzes the ways in which Indigenous water sources, water rights, and territories in the Andean countries are contested. The next section briefly examines how local water uses and rights are embedded in Indigenous territories and how the development of large-scale water infrastructure projects by national policies and transnational interest groups threatens and even undermines local, water-based livelihoods of Indigenous communities. Section three presents three common, illustrative cases: the water territory of the Embera Katio communities in Colombia is encroached on by a large-scale hydropower development project; the Indigenous highland territory of the Ecuadorian Oyacachi community is invaded by a megacity drinking water development project; and the Indigenous peasant communities in the Colca Valley of Peru are dried out by a large-scale agribusiness irrigation project. Section four examines the responses of the Indigenous peoples and communities, in terms of their strategies to defend themselves against these encroachment policies and practices. Section five presents the overall conclusions, locating the three countries' experiences in the wider socio-political context of Latin American power structures and water governance arenas.

### **Indigenous Territories and Disputed Waters**

In the demands and struggles by rural and Indigenous peoples in Latin America, defending and recovering their territories is a central goal. Regarding the territorial rights of Indigenous peoples, the International Labour Organization (ILO, 1989) Agreement 169 urges governments to recognize "ownership and possession of the peoples concerned over the lands which they traditionally occupy" (Article 14, item 1) and safeguard the right to use land to which they have traditionally had access for their livelihoods. Article 15 (item 1) adds that, "these rights include the right of these peoples to participate in the use, management and conservation of these resources." Such provisions, like others in various international agreements and conventions on Indigenous rights to water (for a broad overview see Getches, 2012), are a great step forward in defending territorial rights. Even so, in the Andean countries – in those few cases when governments pay any attention to the conventions that they have signed – it is common for them to attempt to limit application to a geographical-biophysical space with rigid boundaries, although the Indigenous peoples view a territory as a whole and not a sum of its parts. Therefore, in the eyes of these peoples, territories cannot be divided up or sectioned (Manosalvas, 2012; Roa-Avendaño, 2012). For Indigenous peoples, claims of territory include, on the one hand, taking control, use, enjoyment, and management of the natural resources in their territory and, on the other, being able to make decisions about political, economic, social, and cultural issues (Gelles, 2012; Roa-Avendaño & Duarte, 2011).

An initial approach to the complex definition of water territories involves those situations in which local peoples and communities take responsibility for managing their co-existence with society, nature, and agroecology around them sustainably, and struggle against control externalization. "This process implies the active construction and reconstruction of 'water territory' as a socioproductive, cultural and political living space and 'home-base', as a rooted and multi-layered 'political water community', as a scheme of mutual belonging that enables the rebirth of collective imagination. Such water territories involve socio-natural webs with landscapes and waterscapes in which people live and make livelihoods and identities, for which people feel responsible, in which they are morally involved" (Boelens et al., 2012, p. 19).

Obviously, local communities, immersed in unequal power relationships and globalizing contexts, do not always achieve such lasting management. Further, other external (and generally more powerful) stakeholders have their own definitions and constructs regarding the meaning of "territory." Roa-Avendaño & Duarte (2011) argue that, in political and economic practice, territories are configured through social and power relations, so that externally imposed spatial organization generates contradictions with local cultural referents and senses of identity. These modern mindsets that define control over territory are often based on individual economic interests that are legitimized through concepts of development and progress and ignore cultural diversity and Indigenous livelihoods. Therefore, not only stakeholders and entities, but also different

worldviews and political frameworks, face off when the fundamental aim is to define, organize, and defend water territory (Hinojosa et al., 2012; cf. Manosalvas, 2012).

To understand territorial and water rights according to local concepts, there are many elements that will be overlooked when applying an approach that is simply “functionalist and productivist”; for example, the right to water is located not only in technical, organizational, and economic settings, but also in political, cultural, and even ethical, religious, and epistemological domains (Boelens & Gelles, 2005). The rules, rights, and duties related to water are closely linked with cultural systems of meanings, symbols, and values. In many communities, control over, and distribution of, water are profoundly involved in both human and supernatural or spiritual institutions and relations; both are viewed as elements that influence and define control over water. Expressly or implicitly, supernatural authority often reinforces the legitimacy of a particular human authority and action; communities turn to symbolic and religious powers to control water and regulate families’ behavior, either unconsciously or with clearly practical purposes, for example, agroproductive or political aims (Boelens, 2009; Hinojosa et al., 2012; Roa-Avendaño, 2012; cf. Vera, 2011a)

So, water control, use, and rights are embedded in historical and context-specific relationships determining the nature, value, and function of water, which ties them closely to the identity of the communities holding such rights. In this context, water, land, territory, and community form a whole that must be viewed in its entirety, without denying that each element also has its own specific features. Recognizing these interrelationships present a major challenge to bureaucratic and neoliberal policies that assume people put aside their social identities and relations for “rational, efficient water management.” For rural communities and Indigenous peoples, water is one of many elements that inhabitants share, one part of the multiple relations among them (Arroyo & Boelens, 1997; de Vos, Boelens, & Bustamante, 2006).

Modernist water policies, training, and intervention programs, indeed, tend to portray such local views on water and territory as “traditional” (and not as dynamically constructed in current, globalizing times) and “backward.” They often have the implicit objective of protecting local water user communities from their own perverse, backward identities and limited water cultures, supposedly freeing them from their inefficient, irrational water rights systems. It is commonly thought that legal training, schooling in expert-based frames of water rights and techniques, development of water markets, and correction or formalization of their informalities is required for those supposedly excluded from modernity to be included – through adequately adapting the inadequate, consciousness-raising among the unconscious, and capacity-building with the incapable (Boelens, 2009).

As the following cases testify, water reforms and intervention programs, commonly presented as sets of neutral, scientifically objective government techniques to foster progress, have deeply social, political, and cultural consequences for existing Indigenous territories and water rights collectives (Achterhuis et al., 2012). They are attempting self-reproduction – crafting a water world after their own likeness (Boelens, 2009). Although they explicitly claim to promote respect for local territorial and water rights, most contemporary Latin-American nation states have promoted a form of multiculturalism that actually destroys collective management of water territories whenever the market’s rules of play are not followed (Assies, 2012). With the latest neoliberal wave in the Andean countries, which is fostered by banks and international agencies and by states themselves, globalizing forces strengthen the market-based institutional models that threaten to co-opt local territorial systems and community management forms (Bakker, 2010; Hendriks, 2012; Perreault, 2008).

## **Illustrations in Cases from Colombia, Ecuador, and Peru**

### **Colonization of the Embera Katio People's River Territory in Colombia**

The Embera Katio<sup>1</sup> Indigenous territory has been subjected to successive waves of pressure throughout history, disputing access to and control over the natural assets of the Sinú River valley.<sup>2</sup> Colonization to extract timber, appropriation of land for agriculture, and intensive livestock raising have broken down this Indigenous people's territorial structures. Further, penetration by, and confrontations among, armed groups have forced these communities to displace toward the outskirts of municipal areas.

Throughout these processes, the Inter-American Development Bank has generated study guidelines for integrated development of the Sinú watershed to regulate and control the river to generate electricity, increase productivity, and develop land in the river valley. The Urrá hydropower development project was conceived starting in the mid-twentieth century, and, despite decades of Indigenous protests, the Urrá S.A. Multipurpose Company began construction in 1993 during Colombia's energy crisis. This occurred after the Institute of Renewable Natural Resources (INDERENA – now the Ministry of Environment) granted the environmental license to build a major reservoir 30 kilometers upriver from the Municipality of Tierralta, Córdoba. Although the project would seriously affect the Embera Katio people, small communities of fishers, and Indigenous people in the lower Sinú basin, none of them were consulted, despite Colombia's 1991 Constitution (and Law 21) that recognizes ethnic communities' right to prior consultation and to taking part in decisions about projects or works affecting their territories. This Urrá I hydropower dam began operating in 2000, but its severe consequences, including the flooding of 7,400 hectares and displacement of communities, were visible long before.

The Urrá Company took advantage of the growing conflicts, outside pressures, and internal divisions among the Indigenous people to push through the approval license for new mega-hydraulic plans quickly (the Sinú project, also called Urrá II). The government did not take a neutral position or guarantee the customary rights proclaimed in the Constitution; instead, it supported the Company's economic interests. The alliance between political power and geo-territorial interest groups, intimately linked to economic power, stood in the way of any genuine public involvement of local communities.

The Indigenous communities reject this new Urrá project because the mega-project will transform and fragment their territory and destroy the river and its aquatic wealth. Water has been fundamental in the Embera Katio culture, in economic, ecological, social, and cultural terms. In fact, for these Indigenous groups, the most important myth involves the origin of water. In this myth, the Emberas' main cultural hero, Karagabí, rescues the water from stingy people so all Emberas can enjoy it. The felling of the large Jenené tree by Karagabí created all the rivers, wetlands, creeks, and lakes and compensated for the pettiness of Jenzerá, the ant who had accumulated and appropriated the water flows. The Embera Katio believe that water, like all of nature, belongs to all people, so everyone is responsible for conserving it (Jaramillo, 2011). Before paramilitary forces assassinated him for defending the river and its people, Indigenous leader, Kimy Pernía Domicó, said, "sure, we said that Karagabí left this legacy, that he created water so everyone can use it ... because otherwise, we Emberas would disappear, or be cursed by Karagabí for betraying his legacy (...)"

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<sup>1</sup> The Embera Katios are an Indigenous people of the Karib language family, originating in the Amazon region. When the Spanish invaded the Americas, they migrated following the Negro and Orinoco rivers down to the Caribbean coasts, and mainly settled in the Pacific region. The Embera Katio people of the Upper Sinú, descendants of a group of the migrants, number about 3,200 and are located in 19 communities scattered along the Sinú (Keradó), Esmeralda (Kuranzadó), and Verde (Iwagadó) Rivers (Jaramillo, 2011).

<sup>2</sup> The Sinú basin starts at the Paramillo Knot (at 3960 m altitude). It covers an area of 1,207,000 hectares and is 415 kilometers long, crossing south to north through the department of Córdoba and emptying at the Mouth of Tinajones, across from the Caribbean Sea (Roa-Avenidaño, 2010).

(personal communication, 2010).<sup>3</sup>

The Indigenous people defend their territory because they believe that their community's survival depends on the life of the river – damming and deviating the river's water would mean death for the Embera-Katio culture. Their diet is based on the protein provided by the great abundance of fish in the rivers and creeks of the Sinú basin, complemented by banana, manioc, and rice they grow on the floodplains. The new approach to controlling water – building the first Urrá dam and deviating the river – led to the end of their fishing. Numerous species have disappeared. Further, their survival as a people is jeopardized as their livelihood and traditional knowledge about the river's natural dynamics can no longer be applied and their cultural and economic meaning is being lost.

For decades, the Indigenous people, together with peasant and fishing communities of the lower basin, have been struggling against de-territorialization driven by this hydroelectric mega-project. Sometimes they were successful in court challenges; for example, the Constitutional Court, in its T-652 ruling in 1998, supported the Embera people's rights,

... constructing the civil works of the Urrá I hydroelectric plant was more harmful for the cultural and economic life of the Embera Katio people in the Upper Sinú valley, than the territorial pressure and lack of recognition that they had been subjected to since the Spanish conquest: such works not only constitute another territorial pressure, but made it absolutely impossible for these people to continue their livelihoods of hunting, gathering and itinerant crops, that enabled them to survive for centuries without degrading the fragile tropical rain forest environment that is their home (cited in Baleta, 2006, p. 29).

But such rulings did not diminish outside economic and political pressures for continuing large-scale infrastructure building. Hydropower plants are temples of modernity, representing human progress in dominating nature (McCully, 2004). Leader Kimy Pernía never doubted that the ongoing hydroelectric project had the purpose of drying the wetlands in the lower basin, to be taken over by the region's wealthy cattle ranchers and agroindustrialists. To this respect, Alfredo Molano (cited in Roa-Avendaño, 2010) relates that these ranchers would do anything to dry up the Indigenous wetlands to expand their haciendas. He explains how, since the 1950s, politicians, businesspersons, and hacienda owners have dreamt of plans to regulate water. In doing so, the irrigation districts and hydropower plants have created large societal confrontations. The words of Kimy Pernía give us a glimpse into the far-reaching tragedy engulfing the lives of Indigenous communities in the last few years:

I learned about development about 20 years ago, when a priest named Betancur told us that, if we didn't accept the dam, we would go to hell. What development has meant for us has been to trample our rights, kill our fish, divide our community, and murder Lucindo Domicó. ... Development has flooded 28 of our sacred places. (Pernía Domicó, 2011, p. 41)

For centuries the Indigenous peoples of the lower Sinú have had access to a thriving amphibian culture created by the natural flooding in the Lower Basin (Fals Borda, 2002). Despite this, politicians and environmental authorities in the region used “flood control” as their banner for social consensus behind building the dam. In July 2007, the lower Sinú basin was impacted by severe floods, demonstrating that controlling the river's flow was more to dry up land for export-oriented enclaves than to curb flooding (Leguizamón, 2010).

The Embera Katios have publicly denounced the way that public entities and officials have lied to the Indigenous people. The harshest criticism has been for the Minister of Environment then in office. Pernía

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<sup>3</sup> Interview with Kimy Pernía Domicó in Leguizamón. Kimy Pernía Domicó was one of the most important Indigenous leaders of the Embera Katio resistance against the Urra hydroelectric project. He was murdered on June 2, 2001, by the orders of Carlos Castaño, a paramilitary leader, in Tierralta, Córdoba. He was killed and his body dismembered, then thrown into the Sinú River.

Domicó (2011) denounced, “first he authorized the pre-filling (of the reservoir) without any consultation. Then he tried to fool our elder Nokos to get them to authorize filling the reservoir, agreeing to consult about it afterward. [...] Then, on the license, he ignored the entire proposal by the Embera Katío people” (p. 41). Further, a study by the Ministries of Mines and Energy and the Environment to assess the Urrá project found large deficiencies in the project’s environmental impact study, for example, regarding water quality impacts throughout the basin and the negative effects that the salt wedge would have at the mouth of the river (Pernía Domicó, 2011, p. 43). These are just a few of the most serious impacts that both fishers and Indigenous people warned about before the project was built. The tragedy, one in a lengthy series, closely reflects the title of a work by Colombian writer Gabriel García-Márquez – *Chronicle of a Death Foretold*.

### **Generating Water Scarcity and Conflict in the Territory of Oyacachi, Ecuador**

A second illustration, apparently quite different but confronting a political process with very similar features, comes from Oyacachi, an Indigenous territory in the high Andean zone of northern Ecuador. Oyacachi is a community of Indigenous people of Cayambi origin who fled from the Highlands during the war of conquest by the Incas in the second half of the fifteenth century, took refuge, and made their livelihoods on the eastern slopes of snowcapped Mt. Cayambe (Ayala-Mora, 2008). Oyacachi, like many other Indigenous communities in Ecuador’s Highlands, achieved legal recognition as a “community” in 1939, after uprisings about land and the headway by the Indigenous movement in the early twentieth century. The community is inside the Cayambe-Coca National Park, located in a high-altitude Andean valley from 1,600 meters up to 4,300 meters. In the last 20 years, this community has lost its obscurity and become a national, even international, center of attention.

This notoriety has several sources. On the one hand, scientists and conservationists are interested in the remarkable, unique biodiversity of these Andean forests and páramos (high-altitude moorlands), complemented by the scenic beauty, hot springs, and their distinctive handicrafts. However, the greatest interest focuses on the páramos in their territory, where many important water sources are located. This water is fundamental to local people, but it also has many other users, especially to the west, where it is used for human consumption, irrigation, energy, industry, and domestic use.

One of the main water users is the capital city, Quito, with over two million inhabitants. Quito has tapped the water from the surrounding páramos since precolonial times, but in the last few decades the city’s rapid growth and unbridled demand for water have driven municipal authorities to seek and use ever-more-distant sources, which are very complex to manage (Swyngedouw, 2004). At this time, Quito is using water coming from the territory of its Metropolitan District, but also from other cantons in the province of Pichincha and even other provinces, such as Napo and Cotopaxi. This trend has reached the extreme with water from sources that naturally flow to the Amazon basin being transferred westward and tapped.

The Metropolitan Public Water Supply and Sanitation Enterprise of Quito (EMAAP-Q) began one of its main projects to supply water to the capital in 1987, by applying to access water from the páramos in the National Park – an Ecological Reserve (a less restrictive category for human activities within the National Protected Areas System in Ecuador). Some páramos belonged to Oyacachi territory, so Quito formulated its major Papallacta Project, which was completed in 1990. The construction of phase two, called “Optimizing the Papallacta System,” was completed in 2002 and included the building of a dam with a storage capacity of 12.5 MCM (million cubic meters) to meet 75 percent of the city’s demand (FONAG cited in FFLA, 2010). The project included the use of water from rivers that supply the Salvefaccha waterfall, which is important to the community of Oyacachi for both spiritual reasons (many of the community’s rituals and myths involve it) and ecological and economic practices (this zone oxygenates the water for their fish populations).

At the same time, damming water sources with the Salvefaccha dam also affected other Indigenous communities, including inhabitants of the Cangahua zone, the driest and most eroded area on the western slopes of Mt. Cayambe. The 48 farming communities located there, organized under the Guanguilquí-



Porotog Board (legalized in 1988), have a long background of fighting for their land and water rights. Guanguilquí-Porotog was granted a water concession in 1993 from the Salvefaccha and Tumiguina Rivers, but in 1995 the Water Enterprise applied for and obtained the same concessions. A rush for water concessions began, with EMAAP-Q racing against the Guanguilquí-Porotog Board and the community of Oyacachi. This race was encouraged by the National Water Resource Council (now called SENAGUA, National Water Secretary), the top government regulator governing water in Ecuador, which recommended applying for concessions before someone else got them.<sup>4</sup>

This encroachment by a state project, in this case a powerful municipality, is reflected in the history of its planning and implementation. The community of Oyacachi only learned of the Salvefaccha dam construction in 1996 when the building company's machinery moved into their territory. At the time, the community complained about the company trespassing on their Indigenous territory, but their indignation turned to protests and mobilizations that stopped the construction and obliged the Water Enterprise to sit down at the negotiation table. In compensation for the environmental and social damage, the community asked for a series of basic facilities for their village, such as water supply, sewerage, and access roads – the Enterprise only provided a water supply.

### **Deviation of Indigenous Community Water from the Colca River to the Pampas de Majes, Peru**

As in the Colombian and Ecuadorian cases, Peru's recent history is replete with conflicts over land and water. In these clashes, the Indigenous peoples and rural communities are being deprived of their territories and livelihoods by development policy that grants priority to “national progress by hydraulic mega-projects.” The Majes project is a prime example.

The Colca River, the main tributary of the Colca-Majes-Camaná basin that includes the Andes and part of the Arequipa Coast, is 300 km long. The upper part of the basin has a damp, cold climate with an average annual precipitation of 630 mm. This zone is one of the most important fresh water reserves for the Arequipa region. Raising alpaca is one of this region's most important small-farmer economic activities. The intermediate part of the basin has a temperate climate, averaging 482 mm of rainfall annually, concentrated in three months of the year (January-March). This zone of the Colca Valley is home to 6,000 families living in 16 rural towns or communities.

Residents of these valley communities have farmed since long before the Incan empire. Due to the scarcity of rainfall, agriculture depends mainly on irrigation. Ancestors living in this area gained nearly 12,000 hectares of farmland by building terraces and irrigation systems that are still being used today. However, consecutive policies of marginalization over the years have prevented maintenance of the irrigation infrastructure; therefore, two thirds of the terraces are no longer irrigated (Denevan, 1986). Farmers from several communities must irrigate their crops every 70 to 90 days, and, in each community in the Colca Valley, all the productive, social, cultural, and political activities revolve around water. Their cultural identity is based on water, so the water authorities, irrigation organization, rituals, traditions, and norms for water management play a preponderant role in community dynamics.

The lower Colca-Majes-Camaná basin has a dry, tropical climate. On the desert plains of Majes and Siguas in this zone, there is practically no rain. Here the Pampas are “cut” in a U shape by the Colca River (also called the Majes River and then the Camaná River along its way toward the ocean) and the Siguas River, forming narrow inter-coastal valleys (100-1,000 meters wide), where agriculture is highly productive, due to the fertility of their alluvial soil.

For decades politicians and engineers in Arequipa have dreamed of progress and development based on highly modern agriculture by irrigating 22,000 hectares of the desert Pampas of Majes flower (and

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<sup>4</sup> Personal communication, Cristóbal Ascanta, President of Oyacachi local government, February 1, 2011.

subsequently 34,000 hectares in the Pampas of Sigwas), but they have lacked the resources (water and funding) to make this project possible. In 1946, pre-feasibility studies proposed to store and transfer the water of the Colca River in the upper basin. In 1971, with support from the World Bank, the Inter-American Development Bank, and other international banks, the government offered all its support to commence this project. The Majes Consortium (MACON), comprising international companies from Switzerland, England, Spain, Canada, and South Africa, was to handle all the Majes Irrigation Project (PIM) construction, beginning in 1972. MACON used the latest cutting-edge technology (laser beams) for the water transfer, at an exorbitant cost (US\$1.32 billion, part of the foreign debt), so the investment was US\$88,000 per hectare – extremely high for anywhere in the world – bearing in mind that by 2007 the PIM had made 15,000 hectares usable for agriculture. The average cost to make a hectare of land usable for agriculture in other irrigation projects on the coast was US \$6,500 (Vera, 2011a, 2011b; Vera & Zwartveen, 2008).

An amazing feature of the PIM is that it failed to consider the rural Indigenous communities of the Colca Valley as direct project beneficiaries, although their water needs were urgent when the project feasibility studies were being prepared. On the contrary, the water sources of almost half the communities were seriously affected (dried up) by construction of the PIM's hydraulic infrastructure. Villagers have had to fight for many years to be considered beneficiaries. Ironically, up to 2009, the Peruvian government had invested only US\$311 per hectare (0.35% of PIM spending) to improve and rehabilitate the irrigation infrastructure for the 6,000 farmers in the Colca Valley (ATDR, 2006).

In 1983, MACON finished building the hydraulic infrastructure and the transfer of water began that same year. That infrastructure included, among other facilities, the Condorama dam, a mega-dam constructed right on the river at 4,158 meters altitude, with the capacity to dam up 285 MMC. From this dam, water is released (through a regulated flow of some 8 m<sup>3</sup>/sec) into the Colca River, and the flow is dammed 70 km downriver again at the dam-intake of Tuti,<sup>5</sup> where another approximately 276 MMC of water joins it from the upper-middle part of the Colca-Majes-Camaná basin. At Tuti, the river's full flow is deviated and transferred to another river, the Sigwas River, through a canal 100 km long (of which 88 km are tunnels) crossing the rocky Andes running along the whole left edge of the Colca Valley. Deviating the entire flow of the river, the project affects the fish population (the population's main food source) downriver and the watershed runs the risk of drying up (at least during the nine months of no rain), since only little creeks run crosswise into the valley. Several Indigenous communities had to forget their dreams of getting irrigation water from the Colca River downstream from the Tuti intake. The PIM canal has the capacity to conduct up to 34 m<sup>3</sup>/sec of water. Current flow through the canal is 10 to 15 m<sup>3</sup>/sec. It is planned to use the canal's full capacity when the Majes II Project is built, leading all the water downstream to the land of the agro-export industries and wealthier agri-biz farms.

From 2004 to 2008 the government implemented the Program to Formalize Water Use Rights (PROFODUA),<sup>6</sup> also with support from international banks, to register (legalize) water use rights with public registers on an individual and block level (the term “collective right” was avoided). PROFODUA has basically formalized water rights for irrigation users on the coast; funds ran out when they began to work in the Andes. By 2007 PROFODUA had granted 278,119 users water rights, of which 78 percent were males (Guerrero, 2007). In the case of PIM, PROFODUA formalized the usage rights for 2,587 users, recognizing the water volume being used at the time. In short, this means that 560 MMC of water are legally registered for the PIM.

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<sup>5</sup> Tuti is one of the first communities in the mid-high basin where agricultural activities begin. Upstream only livestock and fishing activities are possible.

<sup>6</sup> PROFODUA is a program implemented to meet the requirements for the Free Trade Agreement (FTA) between Peru and the United States. This “formalization”, although not explicitly set forth in the legal wording, includes (among other administrative procedures) public registration of usage rights to certain volumes of water. Such rights may be traded or exchanged by their holders, which, in practice, means a water rights market. The program is totally implemented with public and international (IDB) funding by ATDR (now ALA) technicians and supervised by the Intendencia of Water Resources of INRENA.

Other users, such as rural Indigenous communities in the Colca Valley, can no longer access the water that is dammed up in Tuti. On the contrary, they are accused of affecting the river's ecological flow, since one of the towns ventured to build – with their own efforts – an intake and canal to use the remaining water of the Colca, downstream from the Tuti dam.

### **Defending Territory and Water: Responses by Indigenous Population Groups**

Amidst seriously unequal power structures, combining class-based subordination with racism grounded in notions of Western-modern superiority versus Indigenous inferiority, Indigenous peoples and rural Indigenous communities have not been silent victims of this capitalist usurpation and accumulation. Under complex conditions, they pursue their strategies of resistance and defense, openly and undercover. This resistance, however, as the cases show, takes place under extremely difficult circumstances and in contexts of outright plunder, often including tragic and violent loss of lives.

The Embera Katio people in Colombia, for example, have had to struggle for self-defense in a dramatically militarized, violent context. Over 20 of their leaders have been assassinated, and others have disappeared or been displaced.<sup>7</sup> Their fight became public with the Dowabura,<sup>8</sup> in November 1994, navigating down the Sinú River. Approximately 700 Embera Katio Indigenous started off on rafts from the high Andean forest headwaters of the river and continued down to Lorica, Córdoba, near the Caribbean Sea, to make the impacts that the dam would have on their territory visible. Subsequently, they occupied the Embassy of Sweden, where they signed an agreement to be compensated for the damage caused by the hydropower for flooding their territory.<sup>9</sup> Non-compliance with these agreements led them, in December 1999, to peacefully occupy the offices of the Ministry of Environment, in Bogotá, after a 700-kilometer march by 700 Indigenous. When they were ousted and repressed, they took over the Ministry's gardens, with support from the fishers of the Lower Basin. This sit-in lasted until an agreement was reached with the company after several months; the agreement, however, was never fully kept. This political mobilization was supported by, and coordinated with, other Indigenous actions, such as the U'wa people versus the petroleum industry.

Political action by the Embera Katio people achieved a major national and international impact. The Indigenous leaders made several tours around the country and visited the countries that economically supported the project to demand that the work be suspended. They have also used intense legal mobilization, with support from various scholars and attorneys. In over 15 years, the Embera Katio people have coordinated different strategies to defend their territory, including social mobilization and political and legal actions; however, the core of their struggle has been cultural resistance. The Embera Katio decided that the water origin myth should become the force mobilizing their people to face the threats to their territory. Like the great tree, Jenené, the Emberas should feed and hold fast to their roots: territory, organization, nature, and culture. "This bridge based on cultural roots and worldviews, to analyze the problems of the Embera Katio people of Karagabí, enabled to established strong communication among the leaders and their communities" (Jaramillo, 2011, p. 59). At this time, resistance by the Indigenous and fishers aims to prevent progress with the project's second phase: construction of the Urrá II hydroelectric plant.

Likewise, in the case of Oyacachi, Ecuador, since 1998 there have been community struggles using several defense strategies, including the judiciary. In 1998, the community of Oyacachi obtained water concessions to seven mineral water springs and 18 hot springs located in the micro-watershed of the Cunuyacu River. That same year, EMAAP-Q realized that those concessions were in the zone where the Salvafaccha dam was to be

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<sup>7</sup> The rich Embera Katio territory has been disputed by guerrilla and paramilitary groups because of its geo-strategic location. The Paramillo Natural National Park that coincides with the Indigenous territory makes it possible to control exit routes from the interior toward the Gulf of Uraba and of Morrosquillo in the Caribbean, and traffic between the Caribbean and the Pacific.

<sup>8</sup> "Dowabura" in the Embera language means "saying farewell to the river."

<sup>9</sup> The flooding affected more than 7,000 hectares and displaced about 130 Embera Katio families.

built in the future. By holding protests and marches the Indigenous community forced the state to renegotiate and redesign the intervention. The recognition of water concession ownership was one of the reasons the company finally decided to compensate the community for the damage caused. In 2001, an economic indemnity of approximately US\$65,000 was agreed upon as an initial sum, with annual payments to be made for 47 years starting the first year of operation.

Outside intervention could also be confronted by reaching an agreement with the Ministry of Environment under which the territory of Oyacachi was expanded, whereby both parties would examine, analyze, and approve or reject any project in which third parties, including local, provincial, regional, and national government entities, wanted to use or extract natural and cultural resources from the area. With the public deed and agreement with the Ministry of Environment, Oyacachi made its claim to EMAAP-Q, justifying the ownership of 44,500 hectares (11% of the National Park) (Lasso, 2011). Further, they complained to the Ministry of Environment for having left them alone in this situation. Unfortunately, the dispute over these water resources has made relations between the Indigenous communities of Cangahua (Guanguilquí-Porotog Board) and Oyacachi, once based on marriage alliances, barter, and other exchange arrangements, antagonistic. This conflict has worsened with the intervention by EMAAP-Q. The Guanguilquí-Porotog Board receives 250 l/s of water from the Salvafaccha dam to continue with the canal project (mainly for irrigation, but also for domestic use), while people of Oyacachi feel they have been shortchanged and, sooner or later, the water supply for a growing community with large-scale tourism projects will be insufficient.

In the Colca Valley in Peru, Indigenous peasants have also reacted in different ways to the Majes Irrigation Project. Local folk initially collaborated with the MACON Company with the understanding that the PIM was going to provide water to satisfy their irrigation needs. They provided labor and their draft animals to haul construction material, food, housing, and water to mix tons of cement. They even let the company destroy their terraces of crops to construct (temporary) roads and dry up local water sources to open up the canals and tunnels. However, they found, to their great surprise and disappointment, that the project had excluded them.

In 1975 Canocota, a town located near the dam-intake of Tuti, reacted by demanding that PIM construct a new bridge because the only bridge existing at the location, one that was made by the communities themselves, was being used by heavy equipment to transport construction materials and it soon started to collapse. Then Cabanaconde, a town located almost at the end of Colca Valley, began holding peaceful protests, at first calling on the government to include them as beneficiaries. However, after being ignored and urgently needing water, they were forced to dynamite a stretch of the imposing Majes canal in 1983. Following this act, their leaders were imprisoned and the townspeople were accused of being terrorists, very dangerous accusations in those years when the Shining Path was up in arms (see Gelles, 2002, 2012). However, after a series of negotiations, several water valves were installed to provide a total of 350 l/s of water. Following this action, eight towns on the left side of the Valley were encouraged to join together and demand that the government open up more water valves for their communities also. Their claims were disregarded. Officials refused to attend the public meetings, listen to the complaints, or allow community committee members at the negotiation table. Indigenous women representatives of the committee decided to bring the government authority on board by force. They dragged off the top government representative (sub-prefect) and dunked him completely in the water tank of the main fountain of Chivay, capital of the province of Caylloma. They purposely created the metaphor of drowning the official in water that was “stolen” from them. They wanted the authorities and politicians to understand that they were ready to do anything in order to get back the water that had dried up (see Vera, 2011a). Finally, the eight towns got their hearing, but the allocated water did not cover the local irrigation needs. Communities, such as Pinchollo, were forced to illegally make their own valves to access canal water (in 2005). They are currently being punished by the government and have to pay a fine for breaking the state water law.

The community of Coporaque has also responded by building an intake and canal seven kilometers downriver from the Tuti intake to satisfy their irrigation needs and demanding their rights to use the water

from the Colca River. Initially, four towns on the right side joined together to negotiate with the PIM management, asking them to let some water run downstream and conduct it to a multi-community canal in a future project. When the PIM authorities refused and the government displayed apathy, the four towns desisted; only Coporaque persisted with the project and managed to build a canal. With tremendous work and 25 years of struggle, they now have access to 280 l/s of water, but this canal is used only at one third or sometimes half its capacity because there is no water in the river. The town of Coporaque has not yet given up.

### Conclusions

The variety of Indigenous peoples and rural communities in the Andean countries with their own repertoires, symbols, normative meanings, and substantial local economies represent specific historical and cultural arrangements in the collective management of natural resources in particular territories. However, this does not lend itself to romantization or folklorization. In this age of neoliberal globalization, the political, economic, cultural, and ecological dynamics interact with local Indigenous systems in the management of water and demand for innovative solutions to problems in the constantly changing situations.

This paper has analyzed how economically and politically powerful agents, such as national governments and multinational companies interested in large-scale water development projects, have intervened in, undermined, and “disembedded” the water uses and rights of Indigenous communities, profoundly challenging the integrity of their territorial livelihoods. Water territories and water management collectives of the Embera Katio people in Colombia, the Oyacachi community in Ecuador, and the Colca Valley Indigenous peasant communities in Peru have been confronted with fierce encroachment practices. This often takes place under the banner of “participatory policies” and “multicultural recognition” – which are explicit components of the legislative frameworks in all three countries. Similarly, in all the countries the official policy discourses strongly defend these projects in the name of progress, modernization, and development. Hence, the politics of the co-optation of local communities and factions is an important ingredient. The dramatic and increasing influences of globalizing neoliberalism clearly show that national and international government or market-based policies do not attempt to adapt to local contexts – as the participatory discourses advocate – rather, they seek to transform and control these locally particular territorial spaces. There is an ongoing and intensively growing effort to reorient the geopolitical configuration and make waterscapes and territories serve the demands of the world market (Barkin, 2009; McCully, 2004; Swyngedouw, 2004).

Such external encroachment and control projects, however, require more than enacting new laws and policies. A new water-political order becomes institutionalized in local societies only when it becomes integrated within its economic, moral, and ideological structure. Laws cannot act; only societal forces can shape such change. Water user collectives, peasant communities, and Indigenous peoples in Andean countries often manage to resist externally-imposed policies that attempt to impose “normalization” and take control of water rights and management systems. Their resistance in the water domain includes opposing distributive inequalities of the benefits and burdens of water access and development, resisting non-democratic forms of representation, and challenging the rules of the game and the politics of water, territory, and identity themselves. Indeed, since power games in the Andean water control arenas show the intimate links between socio-economic exploitation and cultural-symbolic subordination (being distinct, but intertwined, in multi-stranded ways), the struggles for alternatives also dynamically combine strategies and claims for economic redistribution, on the one hand, and cultural justice, political representation, and democracy, on the other. Many peasant and Indigenous water user collectives and federations gain political effectiveness by combining class and identity struggles. Their struggles to re-appropriate or defend their water sources simultaneously seek to decolonize the modernist water cultures and defy the individualistic, profit-maximizing, or state-dependent user identities they were assigned (Boelens, 2009).

As the cases from Colombia, Peru, and Ecuador have made clear, Indigenous peoples contest the undermining and subordination of their water and territorial rights through a myriad of multi-scalar

livelihood defense strategies. This harsh, extremely difficult, unequal fight necessarily involves strategic choices and changes, in their productive, technological, and ecological foundations, as well as their cultural, political, and normative institutions. Thus, by defending their water and territorial rights systems, they simultaneously re-create and re-shape them. In the end, resistance to modernist water reforms, neo-colonial normalization, and neoliberal market-led encroachment is both about securing access to water and other inseparable socio-natural territorial components and continuing to exist as territory-based political and cultural communities. In this respect, the challenges that Indigenous peoples in the Andean countries face are enormous and mounting daily.

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