

**Eso Title:** Defining and defending Andean Water Territories. A case study of La Chimba community, in the Páramo of Cayambe, Ecuador  
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## Abstract

In the community of La Chimba, in Northern Ecuador, the notion of water territory and the existence of a formal 'community' are rather new. Even though *comuneros* have lived there for generations, the community was formally established as a social organization in 2002. La Chimba, among other indigenous communities, is at the core of current claims over water resources in the Páramo of Cayambe. This article shows how an indigenous community simultaneously constitutes itself as well as a water territory in the defense of their water security. To observe the construction of both community and water territory, I focused on history and ritual practices as dynamic elements. The results show that natural heritage, social organization and the construction of hydraulic infrastructure are the principal elements in the constitution of both community and water territory. Yet, water territory does not easily correspond with formal units of water management, thus claims more likely continue in the Páramo of Cayambe.

**Keywords:** water territory, community, ritual exchange

## Introduction

Do Andean communities continue to exist because their collective institutions are indispensable (Boelens et al. 2010), or is it enough the sense of unity and the feeling of social closeness to continue the community existence? And on this basis, to what extent community and water-territory are mutually essential?

In the Andes, pre-Hispanic cultures like Incas, Quechuas and Cayambis used to construct, define and control their territory in an expansive manner (Moreno, 2010); through social relations and interactions like *mingas*. Such cultures conquered the more ecosystems they could to diversify their agricultural production; and provide livelihood for their people. This previous political and economical background define, at some extent, the actual defining and defense of territory, in Andean indigenous communities, in Ecuador.

The páramo ecosystem is a high mountain ecosystem in the Andean region (Venezuela, Colombia, Ecuador, Peru and Bolivia). Its lowest altitude begins at the edge of mountainous forest at 3500 meters over sea level, and goes up to the snowline in the Andean cordillera. This ecosystem has a high cultural and biological diversity. Currently, conservationists have declared the páramo ecosystem as the best water regulator of the northern Andean mountains (Mena et al. 2008 and Manosalvas 2009).

In the last decades, after the Agrarian Reform in 1963, the páramo ecosystems are being exploited intensively by indigenous and peasant communities. Even though the ideal way to preserve this ecosystem and its environmental services is to avoid any anthropogenic activities, like agriculture and grazing, the "páramo is the homeland and the livelihood material of approximately 500.000 indigenous and peasant people in the Ecuadorian Andes" (Mena et al. 2001; in: Manosalvas 2009).

Nowadays, the páramo ecosystem is claimed by different actors with different objectives and interests. Not only indigenous people claim this territory as essential for their identity (i.e. homeland, livelihood); but also urban stakeholders claim the páramo as the most important source of water for agriculture, drinking water, hydropower, ecotourism, and industries. For example, Quito demands the páramo water resources to use it as drinking water for its two million inhabitants. On the other hand, more than forty-eight indigenous communities established on the occidental dry slopes of the Cayambe Mountain demand water for subsistence and small scale agriculture. Also the Municipality of Tabacundo demands water for (small and medium scale) agriculture and flower production agribusiness. And finally, the Amazonian Municipality of El Chaco located on the oriental slopes of the cordillera, claims the páramo water for touristic activities on the river (Manosalvas 2009).

La Chimba community is one of the 48 communities; which claim the water sources from the Páramo of Cayambe. This community is placed on the western slope of the volcano of Cayambe; it belongs to the Olmedo Parrish, in the Pichincha Province, two hours (by car) northeast from Quito.

In the case of La Chimba community, the notion of territory and the existence of the 'community', as an institution, are rather new. Even though the people of the *comuneros* of La Chimba have lived there for generations, the community as a social organization was formally materialized, in early 2000's. This situation raises the questions of what element conferred continuity to the sense of unity; among the different

generations in La Chimba, from pre-Hispanic times to the present, until the formal conformation of the community.

It seems that the natural heritage, social life and territorial identity are the elements that constituted not only the overarching community, but also the hydrological space through which the people of La Chimba could make a livelihood and construct the new community identity. At the same time the *comuneros* of the Chimba started the process for establishing the community, they understood the importance of the water-use-rights legal acquisition regarding the water sources (creeks and springs) within their territory; in order to secure their subsistence.

After the formal establishment of the community, in December 2002, the *comuneros* became aware other water users acquired - and some others were claiming- the concession of some of the water sources of the Páramo of Cayambe (or as the *comuneros* claim: the Páramo of La Chimba). For example, Poats et al. (2007) suggest the *comuneros* of La Chimba community did not know the new Tabacundo Canal will carry water from several of the eastern rivers of the Cayambe Mountain (i.e. Angurreal, Chimborazo and Boqueron rivers); neither had they known some of the *poggios* (water springs), located very close to the Cayambe glacier, were to be allocated to the Union of Popular Organizations of Ayora-Cayambe- UNOPAC for diverting drinking water to the villages downstream.

After these episodes, the *comuneros* of La Chimba started the formal process for acquiring the concession of most of the creeks and springs, which flourish in what they consider the community's territory.

La Chimba community is strategically situated in the door gate of the Páramo of Cayambe; and it is at the core of water resources struggles. This community has been negotiating with other claimants the allocation of water resources among their territory. Nevertheless, what is the water territory for La Chimba community is not known at this moment. There is a lack of understanding of the actual relation between water resources, the community and the water territory; which is needed in order to understand the struggles over the water sources, in the Páramo of Cayambe.

The objective of this research study is to explore the relation between water resources, community and territory in the *construction* and *re-construction* of water territory for the community of La Chimba. Therefore, the purpose of this paper is to reveal *How do historical narratives and cultural practices regarding on water access, use and control relate water resources with territory; and as such help in the construction (re-construction) of the community of La Chimba and defense of the community's water territory.*

## Methods

For the analysis of this case study, I utilized the concept of *water territory* and the *Local Theory* developed by Raffles (1999). Both theories focus on the construction of locality based on cultural practices and the historical valuation of natural resources. I chose La Chimba community as the research unit because this community is one of the forty-eight indigenous communities at the core of the claims over the Páramo of Cayambe water resources; also because the community as an institution is rather new; and at the same time it began its constitution as a social organization, it influenced the indigenous movements organization in the region.

Some anthropological perspectives have conceptualized territory as “the construction of a life profoundly rooted in the natural heritage: the river, the watershed, the mountain, all of this forms part of what we mean by territory, and all of it is profoundly linked to culture. So for the communities, organizations, and movements in Latin America, the defense of territory is fundamental: protecting territory is protecting culture, and water runs through both” (Water Front, 2009; In: Manosalvas 2009).

Raffles (1999) developed the Local Theory to relate nature and culture, specifically in the processes of “making of the place”. For this author, locality/territory is made wherever a community constructs identity, lives and makes place. Territory is “[...] a set of relations, an ongoing politics, a density, in which places are discursively and imaginatively materialized and enacted through the practices of various positioned people and political economies” (Raffles 1999). Territory is a concept attached to the identity of a group, organization or movement. Since it is embedded in this context, territory is “highly mobile” in nature (see: Raffles 1999).

The construction of territory has two important cultural components: history and physical action. History is important because location is defined and reaffirmed by different people at different moments of materialization (Raffles 1999). Thus, the site of production of local subjects and the construction of local

identities are anchored in narration. In places with ecological importance it is specifically anchored in narratives (physical, ecological and technological) of “nature” (Raffles 1999).

Based on the previous, the concept of water territory considers water as an intrinsically territorial matter. The notion of water territory involves among other things, the hydrological (physical, social and cultural) constructed space in which a group or collectivity lives, makes livelihood and identity; for which people feel responsible, in which they are morally involved (Boelens et al. 2010: 19). For the empirical analysis, Manosalvas (2009) suggests to “see water territory as the hydrological space that a group or collectivity constructs and define as such”.

For anthropologists territory is claimed by a community based in their culture and praxis/physical action (see de la Cadena 2009 and Pallares 2007; In: Manosalvas 2009). Culture, as it appears in contemporary Latin American indigenous movements, is conceived as a permeable interface between the anthropologic concept and the indigenous community significance of the term (i.e. identity, responsibility and moral attachment). Therefore, culture is empirically related with nature and natural resources through praxis. Cultural practices (i.e. way of life, economic activities, system of law, and utilization of natural resources) were utilized in the past and projected to the future for changing nature, and constructing the place (Raffles 1999). The legitimacy of those cultural practices makes nature discursively and practically, a subject of co-optation. Nature then is incorporated into narratives of contemporary politics (Raffles 1999 and de la Cadena 2009).

In the case of La Chimba community, I explored what was the relation between water resources (as part of nature) and territory, in the construction (re-construction) of the community and the defense of the water territory. For such exploration, I assessed two cultural elements which construct territory: the history behind the appropriation of water resources, and cultural practices (i.e. past, present and future praxis) of the comuneros of La Chimba; which are related to water resources access, use and control (see Gerbrandy and Hoogendam, 2002).

For recording the history and cultural practices, I utilized qualitative methods such as participant observation, qualitative interviews, life histories and texts as data source (see Bryman, 2004 and Rap, 2008).

## **Findings and discussion**

### ***The history and definition of territory***

In the Northern Sierra of Ecuador, the notion of community, as a formal institution, did not exist until after the Agricultural Cooperatives disappeared; in early 1990s (see Ferraro 2004; Ramón 1991; Moreno 1995 and Salomón 1991). Such a statement made me realize the importance of going deep into the historical social dynamics of the people of La Chimba; in order to understand how the cohesion maintained through generations, until the (recent) La Chimba community institutionalization. Therefore, I devote this section to the analysis of the historical and political processes and dynamics which gave structure to the identity and territory of La Chimba community.

The historical research goes back to pre-Hispanic times; shortly before the Incas invaded the Northern Andes. According to the *Enciclopedia del Ecuador* (1999:409), the notions of ethnic unity and territory of the pre-Hispanic societies in the Northern Andes had different structural elements from those of the societies in the Southern Andes. For instance, in the Northern Sierra of Ecuador, the concept of territory was structured by social interactions and the relationships among the different minor social organizations (*Ayllus*), which congregated under a regional political unit (*Cacicazgos*).

According to Salomón (1980) and Moreno (1995), the *ayllus* were the basic social units, in the Northern Andes region; they were groups of approximately 20 families or 200 people, living and making livelihood together. The different *ayllus* related one to another, based on kinship and ethnic alliances. This kind of social relationships constituted the different ethnic dominions or *Cacicazgos* (chiefdoms), which were considered the principal political units in the region. The population of an ethnic dominion ranged between two hundred and 1200 inhabitants; who were protected by one leader or *Cacique* and his family. According to Salomón (1980) and Moreno (1995), since the social interactions and relationships among the *ayllus* were the structural element of the notion of territory, chiefdom did not have any set boundaries; on the contrary, the territory was physically unstable and dynamic.

Two types of social relations conferred unity as well as continuity to the *Cacicazgos*. The vertical exchange of agricultural products was one of them. The *ayllus* used to manage several mountain ecosystems for agricultural production; the products were exchanged among the *ayllus*, in order to secure a complementary

basic diet. For example, tubers produced in the mountains were exchanged with maize grown in the valleys. Salomón (1980) calls "*microverticalidad*" to this kind of vertical exchange among *Ayllus*.

War alliances were another type of social interaction for organizing chiefdoms. According to Salomón (1980), the domains of the Caranqui and Cayambi chiefdoms formed a war resistance unit, when the Inca Empire was invading the Northern Andes, short before the Spanish conqueror arrived to the region, in early 1500's. The Caranqui and Cayambi chiefdoms covered together almost the entire territory of the current Imbabura, Pichincha and Napo provinces, in Ecuador. The current community of La Chimba is placed in the northern limit of the Pichincha province.

The Cayambi chiefdom political territory fell apart for the first time, when the Inca Empire, the *Tahuantinsuyo*, expanded to the Northern Andes, by the end of 1400's. The Incas killed almost the total adult male Cayambi population, and relocated the rest of the population, mostly composed by children, women and elderly, in different parts of the Inca Empire as laborers. For Ferraro (2004), the dismemberment of the Caranqui and Cayambi chiefdoms is the process which paved the way for the submission of the chiefdom and *ayllus* of the Northern Sierra of Ecuador to the Spaniards. Since Incas dismembered the chiefdoms, there was no political unity through which the *ayllus* could interact and construct their social relations; there was no ethnical identity; there was no territory whatsoever.

The Spaniards took advantage on the particular situation of the region. At the beginning of the colonial era, around 1530, the productive land of the Northern Sierra of Ecuador was distributed among the conquerors and early Spanish settlers. People of the former *ayllus* and chiefdoms were relocated on the barren lands of the new hacienda, through a system of *encomienda*: a group of indigenous people allocated to the landlord as labor force. According to Salomón (1980) many indigenous people retained the common land of some *ayllus* inside the haciendas. Yet, most of this land was appropriated by the *hacendados* (Moreno 1995).

The chiefdoms of the Northern Sierra of Ecuador were treated by the Spaniards as ethnic units during the colonial period. Since such chiefdoms were politically and territorially dismembered, the chiefdom no longer had any political power, or geographical and cultural influence. Towards the end of the colonial period (1700's), even *ayllus* did not represent a basic social unit anymore. Therefore, indigenous people voluntarily gathered in the haciendas as *huasipungueros* (a peonage system), in order to achieve better livelihood opportunities. The landowners had to pay a minimum wage to the indigenous people who agreed to work on the haciendas. They also gave the indigenous people a small plot of land for their family use: the *huasipungo*. Generally, these *huasipungos* were located on the margin of the haciendas where the land was considered unproductive. According to Ferraro (2000) and Ramón (1991), the hacienda was a new opportunity for peon or *huasipungueros* to reorganize their economic, social and ritual life, and the interactions needed to restructure the ethnic territory of their *ayllus*.

The land in the foothills of the Cayambe volcano, were given to priests of the La Merced religious order. There they established the Hacienda Pesillo. Along with the grant of land, a group of indigenous people was allocated as labor force. The stories of the twelve current indigenous communities of the Olmedo parish, including La Chimba community, are directly related to the history of the Hacienda Pesillo. Thus, the story of the Hacienda Pesillo, together with the story of La Chimba community is to be divided into four chronological phases, according to the succession of owners: the time of priests, the time of the tenants, the time of the cooperative and the community time.

At the period of the priests of La Merced or *Mercedarios* (from 1560-1908), the Hacienda Pesillo was conceived by the *huasipungueros* as the new political and territorial unity. According to Ramón (1991), the landowner, in addition to being the employer, was the local and traditional authority; who protected the *huasipungueros*. Ferraro (2000) argues in this period the indigenous people were detached from their ethnic groups; as a result they had to depend on their economic relations with the hacienda. Therefore, the *hacienda/iglesia* was the "center" through which the *huasipungueros* made their livelihood. *Huasipungueros* maintained their social relationships, especially those related with ritual exchange of labor and products, with the hacienda. The hacienda not only gave the *huasipungueros* wages and land, but also borrowed them money and products. The *huasipungueros* rewarded with their workforce on the hacienda tasks, and also with a share of the products produced individually, in their *huasipungos* (Moreno 1995). By providing continuity to this ritual exchange, the *huasipungueros* could maintain their feeling of social closeness and sense of belonging to a social unit.

The disruption of the haciendas as institutions started the time of the tenants (1908-1964), when the government of Eloy Alfaro expropriated the Church properties in Ecuador. All over Ecuador, the haciendas were disintegrated, because of the establishment of a land nationalization law. In the case of the Hacienda Pesillo, it was disintegrated into five smaller haciendas leased to prominent families in Ecuador; the political

and territorial unity the *huasipungueros* constructed through the Hacienda Pesillo also disintegrated. For Ferraro (2000) regardless the fact that Indigenous people was scattered among the five new smaller farms, once again the *huasipungueros* find ways to maintain the continuity of their economic, social and ritual life, around each of the smaller haciendas (denominated by the government as Social Assistance haciendas), including the Hacienda La Chimba.

In the time of the tenants, the smaller haciendas stopped operating as the organizational "center" for the social and ritual life of the *huasipungueros*. Since the new haciendas landowners used to live in Quito, they were alienated from the farm area. According to Ferraro (2004), due to the non existence of direct interaction between the *huasipungueros* and the landowner, the social relations between the hacienda and the indigenous people stopped. Instead, *huasipungueros* interacted one with another in the periphery of the hacienda, providing (once again) continuity of the ritual exchange. With the absence of a landlord, the *huasipungueros* depended on mutual aid. As a result of this mutual dependency, the interactions and relationships among the *huasipungueros* intensified, creating again kinship relations; and more notably, some of the indigenous leaders became more independent and autonomous (Ferraro 2000).

Shortly, some of the indigenous leaders of Cayambe, in the Northern Sierra of Ecuador, advocated for "the central role of *campesinos* in the creation of wealth" (Clark 1998); and yet, they were set aside from accessing basic social benefits. The aim of the Social Assistance haciendas was to support urban public welfare institutions such as hospitals and orphanages; however, none of the monetary resources generated in the haciendas were allocated to the poor people of the haciendas (Becker 2001). According to Becker (1999), the rural and indigenous movement of Ecuador began in Cayambe, in late 1920s; specifically with the indigenous leaders of the haciendas in Pesillo, Moyurco and La Chimba. Gradually the *Partido Socialista del Ecuador-PSE* (Social Party of Ecuador) supported the indigenous leaders, helping them with the organization of *Sindicatos Campesinos* (peasants unions). For Clark (1998), the absence of an "organic connection" between the new tenants and the haciendas, and the reconstruction of the *huasipungos* in the peripheries made it possible for the Indigenous people to gradually appropriate the haciendas resources, by invading, establishing new *huasipungos* and clandestine pasturing of *huasipungo* livestock.

The socialist parties together with the *sindicatos* progressively strengthened and began the first social and indigenous movement in Ecuador. They developed organizational relations and a social network among indigenous leaders and urban socialists, in order to achieve a common claim: land for the *sindicatos* and fair wages for the workers in the haciendas and other economic activities (Becker 1999).

For the indigenous people in the Northern Sierra of Ecuador, the access to land was not only a need, but also a structural element for their social unity, and the establishment of an overarching territory. The result of the indigenous and social movement of 1920-30s was the Agrarian Reform implemented in 1964. Since the revolution initiated in 1920's, *huasipungueros* from the Northern Sierra of Ecuador, found in the *Sindicatos Campesinos* a new "center" for their interactions and social relations. Indigenous people fought for their rights to land for almost 40 years. Finally, in 1964 the Agrarian Reform enacted by a military government conceded the land of the haciendas to the *Sindicatos Campesinos*; in order to set up local Agricultural Cooperatives (Becker 1999; 2001; and Clark 1998).

In the case of Hacienda La Chimba, the land was allocated to the *Cooperativa Agropecuaria La Chimba*. This rural institution was recognized by the state as the administrator of the former hacienda's territory. On the other hand, it was not yet considered as the "center" of the interactions and social relations of all the indigenous people living inside the territory of the former Hacienda La Chimba. The *Cooperativa Agrícola* did not bring any social unity to the indigenous people (Ferraro 2000). Therefore, in this period, the indigenous people did not constitute a community: "a gathering of families, which try to find the solutions to their common problems" (Ferraro 2004:62). One of the reasons was the disparity in the access to the land released by the hacienda. The land was accessible only for the members of the cooperative, while young families and other former hacienda workers were marginalized.

The other reason was paternalistic role of the cooperative. Since the *Cooperativa Agrícola* and its leaders administrated, organized and managed all the activities related with agriculture, the exchange rituals among the people diminished. The families no longer needed the help of the other families. The continuity of the social relations was put at risk; as well as the sense of social closeness and sense of unity.

After the Agrarian Reform, in late 1980's, the leaders of La Chimba decided to create an overarching community; a social organization which helped them with their basic needs. Along with the Agrarian Reform, a new Water Act (1972) and an Agricultural Act (1979) were enacted in Ecuador. Both laws triggered the legal conformation of associations and interest groups, to facilitate governmental support for development projects. The indigenous people gathered into different social groups. For example, the families which

accessed water through the *acequia Calvario* joined together under the *Junta de Aguas* (Water Users' Organization) in order to manage the resource and maintain the *acequia*. On the other hand, there existed other interest groups like the parents associations, the milk producers associations and the sports association, among others. Since the activities of the different groups usually overlapped, the leaders of La Chimba decided to look for an integral solution: a communal government.

In 2000, supported by an indigenous political party and the national indigenous movement, the leaders of La Chimba began developing a unique community government. Finally, in December 2002, the newly established governing council of La Chimba community (*Comité de Desarrollo Comunitario "La Chimba"*) unified 400 little land owners (6-10 ha) and eleven interest groups under one representative organization.

Nowadays, the community as conceptualized by Ferraro (2004) is a practical social organization for the management of common resources and services; which otherwise could not be achieved by individual families of the community. The families of La Chimba, under the *Comité de Desarrollo Rural de la Chimba* as the political unit, defined the contemporary community through kinship and friendship relations, and ritual exchange of labor.

The results of this section show that neither the *Ayllus* and the *Cacicazgo* territory, nor the *Cooperativa* and its territory continue to exist. From pre-Hispanic times both the ethnical and political identity of the chiefdoms in the Cayambe region were constantly destroyed. As a result, the different social organizations and social relations constructed through time, by the succeeding generations of indigenous people, changed continuously.

However, a historical continuity is observed in the ritual practices among the people. This ritual exchange of products, services and labor, as part of dynamic social interactions, found a niche and maintained the cohesion in the successive basic social organizations in the region; from the *Ayllus*, *concertajes*, *huasipungos* and *Cooperativa*, until the current organization: La Chimba community. The ritual exchange continuously gave the people the opportunity to feel a social closeness and build up a sense of unity (see Hauser- Schaüblin 2003); which in the end was essential for the constitution of an overarching community. And territory is the dynamic materialization of a community identity and set of relations, in a space where the people constructs life and livelihood.

### ***Ritual practices for the defining and defending of water territory***

Water territory is in essence a hydrological (physical and social) constructed space. "Water territory involves socio-natural webs with landscapes and waterscapes in which people live and make livelihoods and identity, for which people feel responsible, in which they are morally involved" (Manosalvas 2009; and Boelens et al. 2009). Based on the previous, I devote this section for describing three ritual practices, through which the people of La Chimba construct and reconstruct both community and territory. There might be more cultural practices which serve for the cohesion and continuity of the community; yet, I choose the ones linked directly with water management praxis. Those ritual practices are meetings and assemblies, *mingas* and the *wajchacaray*, a syncretism composed by an indigenous worldview and a catholic procession. Then, I analyze how these cultural practices connect water and territory; and by doing so, help in the construction of water territory.

Two of the current ritual practices through which the indigenous people of La Chimba interact and construct social relations are the Assemblies and meetings. This social practice could have started when the Social Party of Ecuador supported the organization of the Peasant Unions, in 1920's. Becker (1999 and 2001) suggests the urban socialists supported the indigenous movement in Ecuador by introducing political practices among the indigenous people in the Northern Sierra of Ecuador, in 1920's and 1930's. Social practices like mobilizations are still utilized by the indigenous movements. However, meetings and assemblies have been adopted by La Chimba community as a way to reconstruct an identity and a political unity, in order to define their community and territory.

Contemporarily, the meetings and Assemblies of the *Comité de Desarrollo Comunitario la Chimba* follow a formal protocol for the internal institutional arrangements. For example, in the monthly directory meeting they start the reunion by reading the agenda and calling every *comunero's* name (*pasar lista*); then they democratically discuss every point in the agenda, getting to a general agreement; which is registered in a book. On this basis, to discuss every single issue can take hours, depending on how many *comuneros* are at stake, and have something to say about it. Towards the end of the meeting, the community Directory (i.e. president, vice-president, secretary, administrator and representatives of each water system and interest groups, like parenthood and parishioners, among others) determines the dates for the next Assembly, meetings and *mingas*.

Since the Directory is a simile of a local government, the decisions made by the people at this space are utilized by the *comuneros* as political strategies for the whole community. From Cooperative times, the users of each *acequia* are organized in *Juntas de Aguas*. As the community strengthened and the economical activities diversified, the *juntas de aguas* also diversified. When the *Casa Campesina of Cayambe* (an NGO supported by the *Iglesia Salesiana*), intervened the region with the implementation of sprinkling irrigation systems for grazing land, the *Juntas de Aguas* reorganized in smaller *Juntas de Aguas*, each one representing a sprinkling irrigation system. Nowadays, all *Juntas de Aguas* are gathered under the *Comité de Desarrollo Comunitario La Chimba*, and each *junta* is represented in the Directory by the president of the *Junta de Agua* (around 17 representatives from each water system, regardless its use for drinking water or irrigation).

The Directory meetings are held monthly. There, the water representatives present a report about the activities held inside each irrigation system. When there is a decision to make regarding the overall water management (i.e. current water projects activities, redistribution of water among systems, water allocation to new *comuneros*), the decision is discussed and made by all the members of the directory. For example, during a field observation on January 23th, 2010, the president of the *Junta de agua del sistema Yana Urco* (a current drinking-water-project promoted by the government) state a plea for the community support in order to demand the contract compliance before the INAR (*Instituto Nacional de Riego*, the state office for technical support). The directory voted to name a negotiation committee; which together with the representative of the *Junta de agua del sistema Yana Urco* traveled to Quito to ask for a meeting with the contractor and the representative of regional INAR office.

More recently, the community directory is seeking for ways to improve the organization and the administration of their resources. Since the constitution of the *Comité de Desarrollo Comunitario La Chimba*, the Directory as the legal representative institution of the community is claiming the grant of water-use concessions, and the implementation of new water projects to the central government. This issue is observed in deep in the next section.

Another cultural practice through which the indigenous people of La Chimba construct and reconstruct the sense of unity and their territory is the *minga*. According to Mora et al. (2005), the *minga* exists in Latin America since pre-Hispanic times; as a collective institution for the construction of common infrastructure and agricultural production. For example, the people of the *ayllus* had to work collectively constructing temples, roads and ritual places for the chiefdom. They also had to cultivate common crops; which the leader of the chiefdom used to redistributed among people of the different *ayllus*, according to local equity notions. Ferraro (2000) refers to this kind of social relation between the *ayllus* and the *Cacicazgo* as a system of reciprocity, for the redistribution of products and services. Since each time a particular *ayllu* received a good or service they had to return the same quality of good or service in a future opportunity, the author considers this a reciprocal system.

The *minga* is a cultural practice which has been transformed constantly among the centuries. In spite of this constant change, reciprocity endures until present times as the fundamental element of the *minga* (see Mora et al. 2005 and Ferraro 2004). When Spaniard conquerors implemented the haciendas, they took advantage of the *minga* system. According to Moreno (1995), since the indigenous people were attached to the notion of communal workload, the Spaniards implemented the *concertaje* system as an image of the *mingas*. Indigenous people were offered a plot of land within the hacienda (*huasipungo*) and a salary, in exchange of their “voluntary” work force in hacienda activities. Therefore, the haciendas replaced the notion of the chiefdom as political units, while *concertaje* replaced the notion of reciprocity attached to the *mingas*. Later on, the landlords gave money loans and goods to the *huasipungueros*; they had to pay these debts back, by working more hours (even days) in hacienda tasks. The landlord used to control this kind of debts by registering them in a book, through a system of “*rayas*”. Each time the *huasipunguero* received certain amount of goods or money, he owed one day of workload: *una raya*.

After the haciendas were recovered by the state, the *minga* was utilized by the *huasipungueros*, of the Northern Sierra of Ecuador, as a tactic to regain land, and reconsolidate their territorial unity within the haciendas (see Clark 1998). For instance, the indigenous people in La Chimba have been working together in collective *mingas*, principally to construct irrigation infrastructure to benefit all the *huasipungueros*.

Nowadays, the *minga* constitutes a part of the identity of the community as a social organization. The sense of unity and social responsibility become materialized under the ritual practice of *mingas*. Each individual of the community compromise his/her work force and willingness with the rest of the community members, in order to build common infrastructure for the community. Each year the community leaders determine how much work is needed in order to improve community life. The workload is distributed in *mingas*. For the *comunero* who wants access to all the benefits of being part of the community, and especially to a water

share, it is mandatory to attend certain amount of *mingas* per year (i.e. for 2009 the community determined a minimal *mingas* attendance of 103 out of the total 130 *mingas*).

According to the ritual practice today, the Directory of the *Comité de Desarrollo Comunitario de La Chimba* determines how many *mingas* will be each month, and for what purposes. The 'Infrastructure Leader', as part of the Directory, makes the calling for the *mingas*, by publishing an announcement in the blackboard of the *Centro Cívico* (the place where the reunions and meetings are held). The announcement states the date and place of the *minga*, which water system *comuneros* must attend, and the tools needed for the job.

The *minga* day starts early in the morning, at around 7:30 am, after the people of the community have had finished the activities in their farms. The *mingas* for the current hydraulic infrastructure are placed near to the water sources, over 3500 meters above sea level. The *minga* for the Lucila Tolana Projects for example, was placed at around 4200 meters over sea level. The people, carrying their tools, have to get to the *minga* place, by any transport, from trucks, 4x4 cars, motorcycles and horses.

The *minga* system varies from community to community. For instance in some communities of the Andes, the *minga* tasks are allocated by wages (from 8:00 am to 17:00 pm). Since the *mingas* in La Chimba community are held the year around, the *minga* tasks are allocated according to a specific chore, determined by the Infrastructure Leader. The *minga* tasks are allocated in pairs. For example, for the *minga* to construct the Lucila Tolana pipe system, the task was to dig canals of around 10 meters (8 to 12 steps) long and half-meter depth. At this pace, the task is concluded in a few hours. When the people concluded the chore (around 10:30 am) they gathered together again to eat the *cucayo*; a type of picnic where people share *tostado* (roasted maize), popcorn, some bread, fruit and drinks. While eating the *cucayo*, they talk about the community activities, the last news about the *comuneros'* lives; they also make jokes about each other. By doing these, they reproduce the feeling of social closeness and sense of unity (Hauser-Schaüblin 2003).

Once the *cucayo* is finished, and all the *comuneros* concluded their *minga* tasks, the Infrastructure Leader controls the assistance to the *mingas*; by pointing out the assistance in a *minga* book of *rayas*. Each *minga* attended is a *raya* on the *mingas* book. If the *comunero* does not accomplish with the minimal quantity of *rayas* required for the year, he or she is called before the General Assembly, were his/her particular case is assessed. If the community decides the *comunero* does not deserve the status of community member, the Assembly can expel the *comunero* from the community, taking the water share back.

Thus, the *minga* is a space not only for working on *minga* tasks, but also for having fun, and sharing. Therefore, the *minga* is a social space to gather the *comuneros* together; where the compromise of each individual, in the construction of collective property, reinforces the identity of the community as a social organization. As a reward the *Comité de Desarrollo Comunitario La Chimba* gives back, to each *comunero*, an equivalent (in quality more than in quantity) good or service. Additionally, the more *mingas* a *comunero* attend the more *rayas* in the book, and the more opportunities to be rewarded by the community (i.e. as representative of the community in second level organizations). These kind of social relations make a united and caring community (see Mora et. al. 2005; and Ferraro 2004).

The last ritual, the *wajchacaray* is ritual practice related with spirituality. From ancient times the indigenous people of the Northern Sierra of Ecuador are used to give a mystical value to the mountains and the páramo through a ritual where all the people of the *ayllus* asked the *Apu* (deity) for rain to sustain their livelihoods. According to the Ecuadorian anthropologist Segundo Moreno, these *Apus* were recognized by the indigenous people as *señores de la lluvia* (lords of the rain). Since the clouds are condensed in the top of the mountains, and then the rain falls, people used to think the mountains had the willingness to produce rain. Therefore, in ancient times, all the people of the *ayllus* used to go over one of the special places in the páramo or mountain, taking little children to make them cry and yell for *Apu's* aid.

After the colonization, the indigenous communities of the Northern Sierra of Ecuador have added some Catholic elements when worshiping the *Apus*. According to Segundo Moreno, the *wajchacaray* was transformed (in some regions of the Northern Andes) into *rogativas* (worshipping); which are a catholic rituals where people used to get out of the church in procession for 9 days; with image of the *patrono del pueblo* (the virgin or saint of the community), asking and singing for God's aid.

For the *comuneros* of La Chimba, the contemporary *wajchacaray* is a cultural practice, which inter-mingles the indigenous ritual with the catholic ritual. People take the image of the virgin of Mercedes in procession to different special places on the hills, over the side of the Cayambe Mountain. These places are often identified as places where one of the *comuneros* of La Chimba died. There the people of the community, including little children from 1 to 5 years old, spend the night with the image, waiting for the sunrise. Then, the priest of the catholic church of La Chimba offers a mass; while the people of the community make little

children yell for water. After the ritual is concluded, people gather together and share the *cucayo*, before getting down from the hills.

The *wajchacaray*, as a ritual practice does not connect water with territory; but it connects the community with their territory. Since only the Catholic comuneros worship the *apus* and the *virgin of la Merced*, this ritual practice is losing its convening power. Yet, the *wajchacaray* is characterized by the syncretism. Water is an indispensable resource for the constitution of the overarching community's social life, culture and identity; hence, both catholic and non-catholic *comuneros* reunite because they attach a mystical value to the *apus* (i.e. the mountain and the páramo).

In conclusion, ritual practices like General Assemblies and Directory reunions are specifically related with the definition and defense of La Chimba community. The uprising of socialism at the very moment the indigenous people in the Northern Sierra of Ecuador started to reorganize, gave the indigenous people the opportunity to interact with new cultural practices to strategize the legal recuperation of their rights to use resources like productive land and water. They adopted new cultural practices like meetings and assemblies, and introduced them to their own cultural practices, in order to organize the people around land and soon after around water. Meetings and Assemblies are social spaces where *comuneros* make democratic decisions about the social life, and the continuous management of the natural resources. Water is nowadays the principal resource for the reproduction of life and for making a livelihood. The General Assemblies and Directory meetings are spaces where the *comuneros* define the organizational and physical construction of hydraulic infrastructure; and therefore the construction and reconstruction of their water territory.

Nowadays the *minga* is an engaging ritual; which principally calls forth the *comuneros* to (physically) construct hydraulic infrastructure. Thus, *minga* is the principal practice which defines not only the community but also territory, and specifically the water territory. Since, *comuneros* access their rights as members of the community by compromising their work load and willingness with the rest of the *comuneros*; this is also the core practice for the construction and reconstruction of the community identity. The *minga* connects directly nature and community by physically constructing collective infrastructure for life and livelihood production; which is core to the definition of the community territory. What's more, when the *minga* is focus on the construction of hydraulic infrastructure, it is directly related with the construction of water territory.

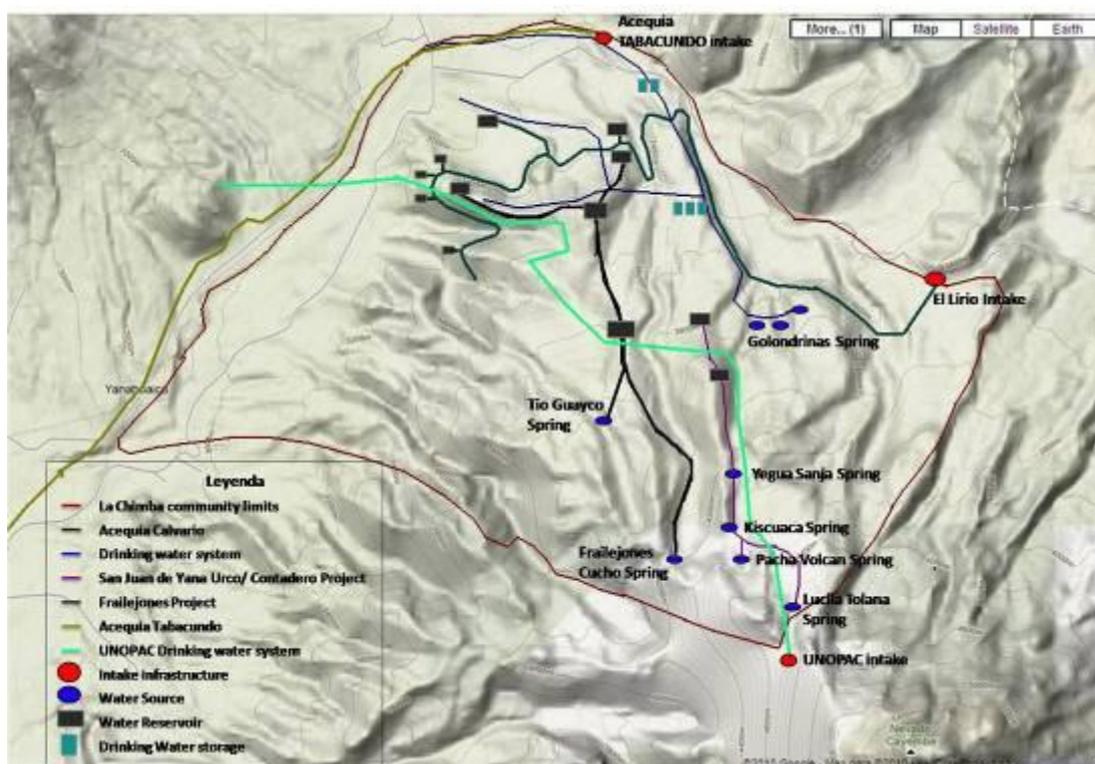
Finally, since rain was for centuries the only source of water for the *huasipungueros* of the Northern Sierra of Ecuador, and because the *huasipungos* were often located near the páramo ecosystem, the indigenous people have constructed an especial interaction with the páramo and the mountains. Even though the *wajchacaray* is characterized by the historical syncretism of indigenous beliefs and Catholic rites, it still reflects the spiritual value of natural resources. By doing so it reinforces the identity of the community; and at the end the social organization is vital for the existence of the water territory.

### **Definition of La Chimba community water territory**

From the previous section, I want to highlight the role of the *minga* for hydraulic infrastructure construction, as the principal practice for the definition and defending of La Chimba community water territory.

I devote this section to show how La Chimba community connected and still connects each of their water sources with the community, by making the place, constructing the socionatural web; which helps in the construction of water territory. The figure 1 shows the contemporary conformation of La Chimba community territory; also shows the hydraulic infrastructure belonging to other actors (i.e. acequia Tacabundo and UNOPAC drinking water system); which are at stake as claimants of the water sources inside the Páramo of Cayambe. Towards the end of this section, I slightly observe the strategies through which the comuneros of La Chimba defend their water territory from external actors.

Figure 1. Hydraulic Infrastructure in La Chimba community territory



(Based on interviews and walking through the community territory)

Even though chiefdoms and their territories were destroyed several times, since Inca Empire invasion, the indigenous people who remained as *huasipungos* still reconstructed their lives through agricultural production and social relations regarding on water. Even when the land was not their property, they could make a livelihood out of subsistence agriculture. Water as the primary resource for agricultural production would have to remain constantly flowing through the *huasipungos* and their agriculture.

Troll (1958; In: Salomón 1980:51-58) suggests that contrary to the “Andes de Puna”, the climatic and ecosystem characteristic of the “Andes de Páramo” did not require complex artificial irrigation; instead they used to depend on small springs and ponds in the mountains to irrigate terraces by gravity (Ramón 2009). The political characteristics of the *ayllus* of the Northern Sierra of Ecuador (i.e. the territorial system is based on the control over the interactions, social and kinship relations among the *ayllus* under chiefdom) refrained *ayllus* from developing more complex agricultural systems. Therefore, during hacienda times, the *huasipungueros* had limited access to water; though, it was enough for subsistence agricultural production.

In La Chimba, irrigation became central when *huasipungueros* of the periphery of the haciendas started taking over the land of the haciendas (1908-1964). According to Ferraro (2004), *huasipungueros* became more independent and autonomous, and started expanding up to the páramo (3200 to 3500 meters over sea level). The construction of the *acequia Calvario* could have been the first collective activity (*minga*) of the *huasipungueros* of La Chimba, in order to improve agricultural production.

Ever since, the indigenous people of the community of La Chimba have defined and define territory, through different mechanisms they use to get access to water, and through different right claims, according to the political changes in Ecuador. In this section I identify what the water resources, claimed historically and culturally by the community are. And how those water resources were claimed and appropriated by the community.

Currently, for the indigenous people of La Chimba community, the *acequia Calvario* is the principal hydraulic structure. According to a correlation made between bibliographical and empirical information gathered for this research, the *acequia Calvario* was constructed in early 1900's, by the *comuneros* and *huasipungueros* living in the periphery of the Hacienda La Chimba. This is an earthen canal to convey water from the Chimba River for both irrigate the marginal lands of the Chimba community, and for human consumption.

The intake of the Calvario canal is placed in the Ismuquiru ravine; it has a capacity of 230 lps (liters per second). The canal has a length of about 12.5 Km, from the intake to the end of the structure. And it

connects 12 different sectors in the community: San Serapio, Huanes, Rumi Ucu, Contadero, Papallajta, Chancaloma, Maria Magdalena, Hierba Buena, Cabuyal, San Joaquin y San Serapio. The canal goes through the hill-slopes, dividing the productive lands (down slope from the canal) from the cattle ranch lands (up slope from the canal) (See figure 2).

**Figure 2. Schema of the Acequia Calvario and its water reservoirs**



**(Based on interviews and walking by the acequia)**

According to Vallejo (2007) and Recalt (2007), a water law enacted in Ecuador (in 1832) established the hydraulic property as the main mechanism to access water and water rights. Based on this Act, the *huasipungueros* could have acquired the right to use the water from the Chimba River, through the construction of the *acequia Calvario*. Since indigenous people had no civil rights (i.e. only literate adults were considered as 'citizens' by the Ecuadorian constitution), they could not legally claim their water rights.

After the indigenous and social mobilizations occurred in Ecuador in 1930's, the State made some reforms to the water law; and the indigenous people of La Chimba could legally access to water rights through a *Junta de Aguas*. Since the government wanted to promote agricultural production, a special Act for Irrigation (1945) allocated water use-rights to the *Junta de Aguas*. According to Vallejo (2007), these reforms were the basis for the Water law enacted in 1960, short before the Agrarian Reform. The water law from 1960 allocated not only the water use-rights, but also the property rights of the acequias to the water users. The *Juntas de Aguas* were created, as a water user's organization, to legally acquire the collective water rights of the *acequias*. Thus, the *Junta de Aguas de la acequia Calvario* is the older and most important organization inside La Chimba community.

When the Agrarian Reform was enacted in 1965, and the Agricultural Cooperatives were implemented in the Northern Sierra of Ecuador, the indigenous people of La Chimba community began to construct more irrigation infrastructure in the region. For instance, neighbors gather together to construct secondary canals to divert water from the *acequia Calvario* to the fields for the production of barley and other grains. Each group of water users established a *junta de aguas* for each of the small *acequias*. Some of the people also constructed acequias individually to divert water directly from the springs in the Páramo of the Cayambe Mountain to their fields in the peripheral areas of the community. That is the case of the *acequias*: Frailejones and Chacaloma; which convey water for irrigation from the glacier of the Cayambe Mountain.

For the decades ahead (1970-1980), the Ecuadorian government supported rapidly increase of agricultural production. The *comuneros* of La Chimba community began to look for new strategies to increase agricultural productivity. According to Ferraro (2000) the Olmedo Parish has good climate and environmental conditions for dairy production. Since 1980's, the *Casa Campesina*, and other NGOs introduced in the region not only improved livestock and grazing land, but also new irrigation systems in order to promote milk production. The indigenous people of La Chimba community replaced gravity irrigation for sprinkling

irrigation. Therefore, various small water reservoirs were constructed over the hills, in order to store the water diverted from the *acequia Calvario*. Each water reservoir has around 3000 cubic meter capacity and confers enough pressure conditions for the sprinkling irrigation systems (Poats et al. 2007).

In 1972 a new water law was enacted in Ecuador, this Act recognize water as a common resource (can no longer be considered as a privately owned), which can be utilized by different claimants as long as the resource is sufficient in volume. To administrate and control the use and rights allocation the government implemented a concession system and the *Instituto Ecuatoriano de Recursos Hidraulicos* INERHI (Ecuadorian Institute of Hydraulic Resources). For instance, to acquire a water-use right, a petition must contain names and detailed location of the source, flow and place of intake, names and addresses of the principal users, purpose of use, structures and installations required to be able to use water and technical studies, works and plans. In case water will be used for irrigation, beneficiaries must have a record on the number, names, locations and capacity of their concession; construct all the hydraulic structures of the system, elaborate internal rules for the operation of the system; update a users list, plots and locations, area to be irrigated and crops requirements. Beneficiaries had also to establish the irrigation schedule and operation and maintenance plan. All these requirements were supposed to be actualized each year and be delivered to the INERHI (Boelens and Doornbos 2001).

Anyone could claim a water concession as long as enough volumes of water were available in the water source. Nevertheless, the 1972 water law concedes the concession of the sources to the actors who already had a constructed hydraulic infrastructure for the exploitation of the water source.

For some decades, from its construction until the 1960's, the *acequia Calvario* was utilized for both irrigation and drinking water. From the time Ecuador became a Republic, water for irrigation and consumption had no distinction in rural country side. The distinction was implicitly introduced by the 1972 water law. In early 1980's, the Government provided La Chimba with pipes a small potable water system to deliver drinking water from the *acequia Calvario* to the central town. Yet, the people in the periphery of the community were left without drinking water. In 1987, the leaders of the cooperativa supported by an Italian priest constructed a broader irrigation system to divert drinking water from an alternative water source.

Consequently, the community gathered in *mingas* to construct an intake in the Golondrinas spring, near the páramo, and a pipe system to divert drinking water to all the families of the community. The system takes water from four springs of the páramo Golondrinas. The principal pipe delivers the water to a water reservoir in Yana Urco hill. From there, the water is distributed to two matrixes. One goes to the town center and the milk collection center; while the other matrix is divided into two pipelines: one goes to the Buey Loma hill, and the other goes to Papallajta, Contadero, San Rafael and San Ramón (see figure 3). The pipe lines distribute drinking water to the entire community. The maintenance of the system is done by the community and no water fee is paid for this service.

**Figure 3. Drinking water system**



(Based on interviews and field observation)

Even though Water Law was enacted in 1972, the *Cooperativa Agrícola la Chimba* (which was the only legitimized institution at that time) legally asked for their first water concession in 1988, after the construction of their drinking water system. According to the water-use dictum from May 1991, La Chimba Cooperative, representing 142 *ex-huasipungueros* of the La Chimba hacienda, was awarded with the concession of three water sources: the Chimba River, with 230 lps diverted to the *acequia Calvario*; Golondrinas Spring, with 57 lps; and Frailejones Spring, with 74 lps. La Chimba community was granted with a total flow of 361 lps, in their first concession. The water law states an annual tariff for each concession, depending on the type of use.

Another important aspect of the 1972 Water Law is the fact that anyone could ask the concession of water sources. For example, in mid 1980's, when the people in La Chimba were still not organized as an overarching community, the leaders of the Ayora community presented a drinking water project for their community to the president of the *Cooperativa Agrícola La Chimba*. The project was designed to carry water from the glacier of the Cayambe Mountain to the community of Ayora (south of La Chimba), through a pipe system. To place the infrastructure, the *comuneros* from Ayora needed the permission of the representatives of the cooperative to work inside the territory, carrying the materials and the people to construct the system.

The directory of the *Cooperativa* accepted the intrusion of the *comuneros* of Ayora in exchange of a water share. The Municipality of Cayambe was granted with the concession of the water source placed in the glacier of the Cayambe Mountain for the Union de Organizaciones Populares de Ayora-Cayambe - UNOPAC, but they did not share the promised water. Nowadays, the UNOPAC drinking water systems structure is visible through La Chimba community territory as a reminder of the importance of the social organization for the construction of the water territory. Deeper observation is needed to understand to what extend the water territory, belonging to different actors, can overlap; and by doing so, trigger water claims and conflicts. The hydraulic structure of the UNOPAC drinking water system is shown in the figure 10.

Based on this experience, La Chimba community leaders became conscious of the importance of legally attaining water-use rights, through water concessions. When La Chimba community implemented the communitarian government (*Comité de Desarrollo Comunitario de la Chimba*) in 2002, they started to claim the concession of various water sources.

First, the government council of La Chimba community asked the National Water Secretary (*Secretaría Nacional del Agua-SENAGUA*) for the legalization of the water-use right of springs and creeks from which the *comuneros* have been diverting water to old *acequias*; either for irrigation and livestock watering. One of the concession processes grants the use-right of the Frailejones cucho, Yegua Zanja and Tio Guaico creeks to divert water to the Frailejones and Turucucho *acequias*. The other one assert the water-use rights for the Quiscuacua and Pacha volcan creeks, and Lucila Tolana spring to divert water to the Quiscuacua and Pacha Volcan *acequias*.

Additionally in October 2006, they required the renovation of the water concessions granted to La Chimba Cooperative, in 1991. They asked the water-use right for the Pucacachipamba (or Talcas) source, Carnicería River, Pau Corral Ravine, Terreras and Quiscuaca Springs, and Chimba River intake. The technical data of the water concessions of the *Cooperativa de Desarrollo Comunitario de La Chimba* is expressed in table1. La Chimba community is granted with a total flow of 484lps, to irrigate a total area of 1027 ha. They pay around 894 USD annually for these services to the SENAGUA.

**Table 1. Technical data of the concessions granted to the *Comité de Desarrollo Comunitario La Chimba***

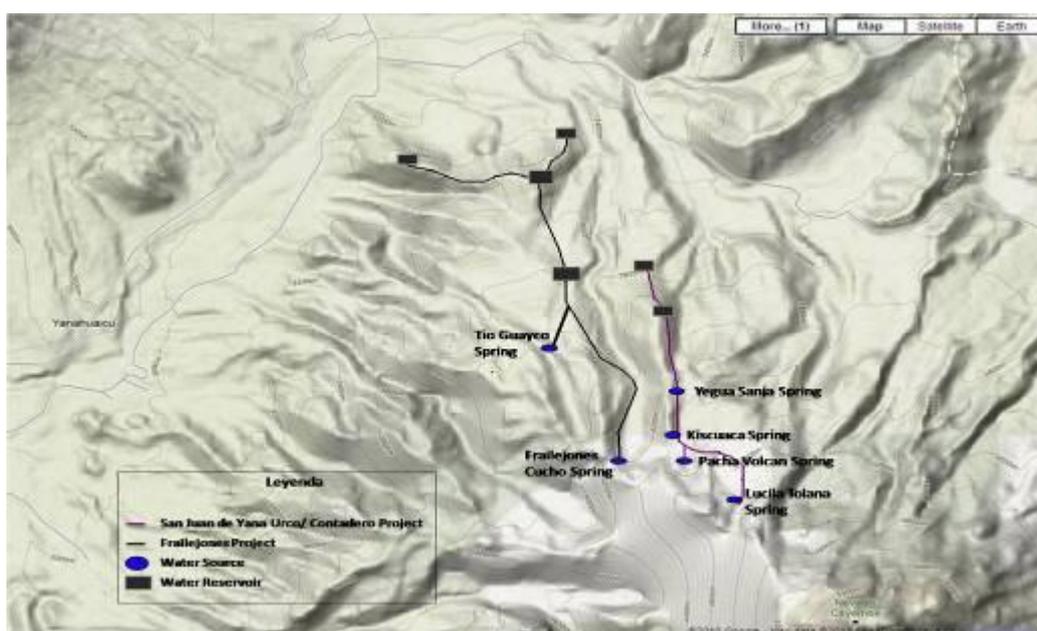
Concessionary Name: Comité de Desarrollo Comunitario La Chimba							
Concessionary Location: Pisque River Micro-basin; Pichincha Province; Cayambe Canton; Olmedo Parrish							
Concession location: Esmeralda River System (06); Esmeralda Basin (12); Guayllabamba Sub-basin (04)							
Concession name	Water Concession Characteristics				Concession Location CNRH		
	Use Type	Command Area (ha)	Flow (lps)	Water fee (USD)	Altitude (mosl)	Latitude	Longitude
Frailejones Cucho	irrigation	80	32.00	59.20	4125	0010451	831214
Yegua Zanja	irrigation	102	41.00	75.90	3798	0010223	830610
Tio Guayco	Irrigation/drinking water	30	12.00	22.20	3802	0010351	8000069
Quiscuaca / Pacha Volcan	Irrigation	93	32.09	59.37	3655	0010793	218-166900
Lucila Tolana	irrigation		5.00	9.25	4232	0006328	218-166476
Acequia Calvario	irrigation	722	230.45		3420	0012660	832555
Acequia Chacaloma	irrigation		73.55				
Golondrinas spring	Drinking water		0.01				
<b>Total</b>		<b>1027</b>	<b>484</b>	<b>894.04</b>			

(Based on Water Concession Processes No. 2263-Rv; 2675-2005; and 2673-2005 Water Agency Quito-SENAGUA)

Apart from legally acquiring water-use rights from the central government, inside La Chimba community, *comuneros* had to acquire their water-use rights, according to local traditions. Besides paying a water tariff, to acquire a water right, *comuneros* have to actively interact in collective activities like meetings, assemblies and especially in *mingas*, in order to improve the communitarian environment.

From 2007, La Chimba community is working in the construction of Frailejones and San Juan de Yana Urco/Contadero (Lucila Tolana) projects (see figure 4). Both projects are going to connect all the creeks, ravines, springs and rivers to various water reservoirs in the highlands of La Chimba community; in order to make the granted flows available for irrigation; cattle watering and human consumption. La Chimba community got governmental support for the construction of the projects. The INAR (*Instituto Nacional de Riego*, former INERHI) allocated the funds and technical support; while the *comuneros* provide workforce, not only to construct the water system but also to construct roads to access to the water source and the reservoirs.

**Figure 4. Lucila Tolana and Frailejones projects, and granted concessions**



(based on interviews and field observation)

The objective of this research is to find empirical connections between territory and water. Therefore, I consider important to highlight the importance the indigenous people of La Chimba community devote to the hills in the side of the Cayambe Mountain. When we first approached the community leaders asking what the community territory was, they started the delimitation of the territory by pointing out the hills they consider as belonging to the community. According to Ramón (2009), hills were politically important for the Cayambi chiefdom, because each *ayllu* leader used to construct their houses and the ritual places over a hill. From that place they could observe and control the activities and the families under the *ayllu*.

Since the construction of the *acequia* Calvario by the *huasipungueros*, in early 1900s, the indigenous people of La Chimba community keep on constructing hydraulic infrastructures within the community's territory. That way they are constructing hydraulic property through *mingas*. This cultural practice is the most important in the definition and defending of water territories. Once the community identifies a water source, they begin a legal process to be awarded with the concession. Once they are granted with the legal water-use right, they start with the construction of roads to carry PVC tubes and tools in order to construct conduction canals from the water sources to their reservoirs. Those springs and creeks are located over 3500 meters over sea level, which means they are inside the páramo ecosystem.

The people in La Chimba community are not only securing the water, they are planning to intensify its use by constructing water reservoirs in the top hills; in order to implement sprinkling irrigation for increasing the grazing lands in higher hillsides of the community territory. Thus, the community leaders are searching for more water sources.

## Conclusions

In this case study, I researched the question of how historical narratives and ritual practices regarding water access, use and control relate water resources with territory; and as such help in the construction (re-construction) and defense of La Chimba community's water territory.

A historical overview shows that organizations in La Chimba went through a continuous process of construction and destruction. Nevertheless, a basic social unit (i.e. *ayllus*, *huasipungos*, and so on) has remained continuous until today, through the reproduction of exchange rituals. Ritual practices have been important in constituting part of the water territory and formal community of La Chimba, which exist today.

Community and water territory are simultaneously constituted. An overview of the history of La Chimba has revealed the people of La Chimba looked for ways to reproduce their notion of culture and territory. They adapted their ritual exchange practices (i.e. agricultural exchange, products-services exchange and labor services exchange) to the political circumstances they faced in order to both construct a sense of unity and give form to their territory. For example, in the hacienda times, the *huasipungueros* used to offer their labor to the *hacendado* in exchange of loans and the provision of basic necessities.

During the last century, the people of La Chimba have started the construction of hydraulic property as a way to define their community and defend their water territory. Historical processes have shown that the construction of the community and the definition of water territory are both achieved by the ritual practice of *mingas* to construct hydraulic property. The end-result of the ritual practice is a sociotechnical network, which physically connects water territories with the community.

Nowadays, community Assemblies and meetings are places where the *comuneros* of La Chimba interact and reinforce their social relations; therefore they redefine their identity as a community. At the same time, these political practices allow people to democratically decide what water sources they will use to make life and livelihood, how and when they will claim them. And who are going to invest their labor and time in the construction of hydraulic infrastructure, once the water sources are formally allocated to the community.

The study has also shown that practices based in syncretism like *wajchacaray* remain present among the catholic *comuneros* of La Chimba. This ritual practice allows the people redefine their identity as a community; at the same time, they connect the páramos and mountains as source of water within their water territory.

The importance of taking into account the existence of water territories in the Andean communities is that river basin as a unit of water management does not easily correspond to water territories. River basin are geographical concepts used for water management, implemented from outside by state and/or management planners; while water territory includes not only management issues but more importantly governability issues related with identity, life and livelihood of the community.

Water territory is defined by the ritual practice and the physical construction of hydraulic property. It is possible that other actor's water territories overlap in the same water space. Nevertheless, the fact that the form of the social (i.e group or community) and the ritual practices are always changing, makes water territory a characteristically contested and negotiable notion.

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