

Title:

Author:

**Occupy Climate
Change (OCC!)**
*Grassroots initiatives
entry*



FORMAS



Final Assignment: Cicasos Hills Conservation

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The Lima hills (Lomas de Lima), in the Peruvian capital, is one of the most extended ecosystems of the city. It consists of 19 hill sites in 19 of the 52 districts of the city, occupying between 7% and up to 24% of the territory every winter, when El Niño event occurs (MLM, 2014). When that happens, all sites are connected by wide stripes of vegetation that turn a grey and brown city into a green space that contain a vast natural and cultural heritage: This ecosystem shelters a rich biodiversity of plants and animals, supplies the city with several ecosystem services such as soil retention that stops it from land sliding on the sides that is so risky for the closest inhabitants, tourism supports the local economic development, and strengthens the weak limeñan identity linked to the appearance of the Amancaes flower greatly mentioned in several cultural traditions. Other services provided are related to pollination, supply of atmospheric water, air cleaning food supply (LEL, 2014; MLM, 2014; PNUD, 2018). The geographical distribution of the hills can be seen on Figure 1 below.



Fig. 1. Lima hills. At the bottom, Cicasos hills in San Bartolo (source: periferia.pe).

The hills are open spaces and represent an opportunity to rethink their relationships with a desertic city that has a differentiated district access to green areas based on economic aspects (Mamani & Nieuwland, 2017; MLM, 2014), and with the potential to overcome some environmental challenges related to biodiversity, water access, and climate change. Despite their importance, the informal urban growth, that can go up even to a 90% as consequence for the lack of public policy in urban development and of efficient programs for social housing, has already degraded the soil and affected the ecosystems services. This lack for proper urban planning has increased the vulnerability for many people that cannot access to own a property, providing an opportunity to illegal land Traficant that have links to public authorities. The hills have been systematically decreasing in a context in which urban pressures on them are growing, not only because of urban occupation, but also for their use as landfill and for exploitation through construction aggregates mining (Mamani & Nieuwland, 2017).

Since 2011, after pressure exercised by local communities surrounding the hills usually led by environmentalists (Venegoni, n.d.), Public sector has initiated an action plan to face the different challenges on the hills through the Lima Hills program (Programa Lomas de Lima) with 4 action lines: The first one was the creation of the Área de Conservación Regional Sistema de Lomas de Lima (Lima Hills System Regional Conservation Area) that gave official recognition to the most of the sites as fragile ecosystems supported by the legal frame of two municipal ordinances (environmental policy N°1628-2012-MML and environmental agenda N° 1640-2012-MML) boosting different municipal policy in conservation issues to protect and preserve vulnerable ecological units through their controlled access and maintenance, characterization/ profile studies for further territorial organization. The other three actions lines are the development of eco-touristic circuits for sustainable economic growth of local inhabitants, ecosystem restauration with native species, and the construction of hill-parcs as open spaces for integrating the human activities within the natural environment (MLM, 2014; LEL, 2014).

As mentioned, several local organizations and enterprises have risen up to protect them all. By instance, the “Frente de Defensa Ecológica del Valle de Lurín - Fredecol” (Lurín Valley Ecological Defense Front) has included the Cicasos Hills as part of the group of vulnerable ecosystems they try to protect. The Cicasos hills are located in the southern district of San Bartolo, about forty-five minutes outside the metropolitan area of Lima. I interviewed

Fredecol's current president Jaime Chipana, an all-time environmentalist neighbor of the Lurin district, who gave us an overall view on the association's organization, objectives, successes and challenges

Fredecol was formed towards the end of 2008 to fight against the pollution of the Lurin river by Lima's drinking water and sewerage service (Sedapal) and several production plants located along the river, affecting the water table of the locality. It started with only 6 neighbors who invited Jaime to support them with his experience, and now it assembles around 300 people working on it *ah-honorem* and as required depending on the urgency of the several project they are involved in. Many specialists, including several renowned professionals in biology, environmental sciences, geography, history and law have made themselves available to cooperate when needed with the locals in order to protect the "small-south" (*sur chico*) of Lima. Some politicians are also included, required to be able to connect the organization with the political power and have higher chances to promote their cause and obtain results.

In the beginning, Jaime was invited due to its participation as civil representative in the Lurín district municipality for the local projects participative budget control, in charge of the project's inspection and communication to the local inhabitants. As a result of their first actions, Fredecol obtained a municipal ordinance forbidding industrial activity in the "trapecio de Lurín" area, with the intention to benefit the protection of vulnerable areas in the vicinity. Protection was directed to the ecosystems and the living conditions of the inhabitants affected by the production plants established there. A few years after the first meetings and the convoking neighbors, Jaime became the participative budget representative at the wider "departamento" level, including all the Lima "distritos".

In 2014, the Lima Cement Company presented a project to expand its operation to the El Manzano hills. Cementos Lima was already operating in Pachacamac, another district that shared boundaries with the northern part of Lurin, where they completely degraded the soil of the Pucará hills after non-metalurgic mining activities to exploit a high-quality clay. Their next objective was El Manzano. In 2015, and due to Fredecol's small size and weight when facing the interest of one of the biggest clay companies in Southamerica, many other local organizations defending hills are convoked to form the Red de Lomas de Lima (Lima hills network), and later on the Red de Lomas del Perú (Peru hills network) formed in 2018. The Lima hills network presented a file proving that the technical solutions proposed by Cementos

Lima were not viable. Finally, in 2020, the authorities denied the opening of the “Cristina” quarry in El Manzano hills. This was settling a precedent on grassroots initiatives facing a company with great power and political reach.

In 2018, Jaime met the San Bartolo major, with the idea of recognizing the Cicasos hills as part of the network of vulnerable ecosystems of Lima. As explained before, the hills permit the current conditions of the water cycle in a desertic city. They provide remedy to short term issues derived from climate change, as a form of adaptation through the water cycle regulation, the presence of vegetation coping with carbon dioxide emissions, and the transfer of water to wetlands located close to them. That year, the hills were officially recognized as a vulnerable ecosystem by legal norm RDE 153-2018-MINAGRI-SERFOR-DE. Moreover, their soil allow the percolation of humidity into the water table, avoiding the disappearance of wells required for human consumption. The hills also shelter several insects required for pollination. More information can be found on the Storymap presented at the end of this document.

According to Jaime, the objectives of the recognition of the Lima hills as a vulnerable ecosystem are two. Firstly, to create a municipality-citizen element to protect vulnerable ecosystems. Secondly, to include the hills on the Lima Hills System Regional Conservation Area. The replicability of the model followed by other hills conservation organization would provide stronger background and probably more resources to protect Cicasos from its main dangers: Cementos Lima on their quest for more high-quality clay present in the hills soil, and real state companies interested in developing projects in a growing city. However, the development of a strategic plan presents several complications, including that there are several views on what this plan should look like with different views that could even be opposite one to another.

Many limitations of the protection of Cicasos hills, as for most of these projects, are related to the established corruption on private and public sectors, confirming the thesis that the State is the main booster of informality and loss of biodiversity (Venegoni, n.d.). Many economic interests besides the protection of ecosystems play different roles and exercise different levels of stress, most of them benefiting from the ignorance and disinterest of big part of local population in regards of ecological preservation and ecological services. This reflects on several municipal ordinances not being followed by citizens and companies, legal protections supporting polluting industrial activities, a police force not acting according to

existing protocols for land enclosure, for example. The lack of resources also plays a big role on the lack of action to achieve the goals. There is no budget item at San Bartolo municipality to create the file for Cicasos and enter the formal hills protection system, reason why the municipality has started to plan eco-tourism activities to raise necessary funds.

Preliminary research
1) City: Lima
2) Initiative: Ecosystem protection
Selection case
3) Case: Cicasos hills (San Bartolo)
5) Organization: Fredecol
Collection of information
6) Internet: Scientific literature
7) Projects reports
8) Facebook
9) E-mail contact
10) Phone pre-interview
11) Zoom interview with Fredecol President
Production of the entry
Submission of the entry



1. Invitation to Cicasos eco-trekking.



2. A group of people standing on the dirt.



3. Fredecol team leading the eko-trekking at Cicasos hill.

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Storymap

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