

# Water provision and management of urban-rural interface territories

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### PITCH

The urban-rural interface territories, as well as their inhabitants, play a key role in the collection and distribution of water resources for the city, often because the sources and infrastructures are located in these territories. This is the case of the Hampaturi basin, one of the main water sources of the city of La Paz where, its inhabitants are still resorting to alternative water systems as they are not systematically connected to the public system. Both municipal and national authorities are not always able to understand the true needs of these populations because their framework of analysis is restricted by a dichotomous vision of the territory. Based on investigations carried out in the Hampaturi basin, district 22 of the municipality of La Paz, there is an identified need to incorporate the urban-rural interface category in the national and municipal regulations on territorial structuring and planning. Therefore, several factors such as socioeconomic diversity and environmental importance of the interface as well as the particularities

of its model of territorial occupation would be integrated into planning and therefore, into meeting the population's needs.

### ISSUES

Bolivia has set out to ensure the access to drinking water, but much of this effort is hampered by the dichotomous way of understanding the territory. Policies are either directed at urban or rural level, thus those who live in areas where this division is blurry are invisible to decision makers.

The interface territories are defined as “another category of territorial analysis necessarily complementary to that of the rural and urban level, the city and the countryside”, which emphasizes transition and linkage. Precisely, the term interface reflects the idea of “connection, linkage and likewise of transition between a territorial reality and another one, producing a new one, which is also shaped in time and space”. These territories have a great socioeconomic diversity, overlapping institutional domains, and the

coexistence of natural and urban characteristics in the same territory<sup>2</sup>.

The Hampaturi basin is an urban-rural interface area with all these characteristics, but which is also the subject of a conflict over water. This territory plays a key role in the collection and distribution of water resources for the city, given that almost a third of the water needs of La Paz metropolitan area depends on this source<sup>3</sup>. However, this territory faces a drinking water shortage that pushes people to use self-managed springs and pipes, which negatively weights on water quality. This situation has caused conflicts and in several occasions, the inhabitants have threatened to cut off the city's water supply.

### METHODS

A combination of geographic information tools, archives review, interviews with municipal technicians and workshops with the inhabitants were used to investigate conflicts and tensions caused by water in the Hampaturi basin where the interface territory shows three different types of land: urban, suburban and rural.

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**Geography:** Bolivia, Latin America

**Themes:** Water, territories, inequalities

**Find out more about this project:** <https://www.afd.fr/en/carte-des-projets/inequalities-urban-water-services-la-paz-and-el-alto>



## RESULTS

The urban-rural interface is indeed a third territorial category but since it is not considered in territorial planning, management policies and tools for rural or urban areas are applied to this particular territory with inadequate and contradictory results. On the one hand, agriculture is encouraged and on the other hand, the urbanization process is accelerated. In areas of urban-rural characteristics, the regulatory gap gives rise to informal and/or illegal activities.

There is an institutional overlap due to the competition between different levels of the State to have a presence in these territories and have the decision-making power over the water intakes on which part of the city depends. EPSAS, the municipal government and the central government – through the provision of housing and distributions such as the INRA – intervene in an uncoordinated way. This disorder is exploited by land speculators who solely focus on urbanization without

attention to the specificities of the territory.

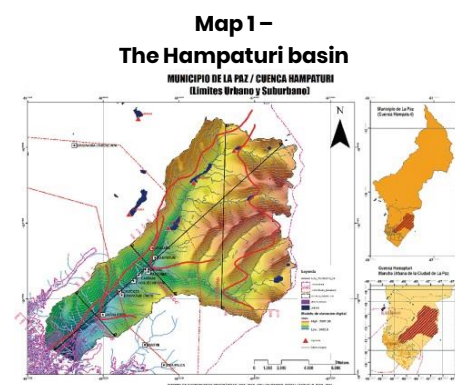
The inequality in access to water results in health risks for the residents due to various hazardous practices: consumption of water from untreated sources, recycling and water saving, contamination of groundwater sources caused by the use of septic tanks, the use of fertilizers in medium unmonitored agricultural production areas.

With the absence of management instruments in the interface, there is a growing presence of urban developers and agents with private interests. They deepen the disorganized and unplanned urbanization model by not respecting the environment and being insensitive to the importance of public space. Consequently, this type of urbanization will be a source of new conflicts and malaise.

Meeting the demand for drinking water and sewerage in the communities without being accompanied by comprehensive

territorial planning measures that take into account the conservation of the combination of the rural and urban characteristics of these territories could lead to the pauperization and degradation of the area.

The lack of coordination between the different institutions and government levels has delayed the provision of drinking water and sanitation, generating social unrest. In this scenario, the dams or water distribution pipelines of the large urban system now administered by EPSAS, become easy targets for pressure measures by the residents.



Source: Sistema de coordenadas CGS\_WGS\_1984

## RECOMMENDATIONS

- ▶ The territorial and land policies need to incorporate the suburban interface as a specific category for which it is necessary to deepen the studies and generate greater knowledge, a task that should be entrusted to the academy ensuring its financing. It is necessary to analyze the currently existing water access systems, recognize that they represent an alternative to the main EPSAS system, and consider the option of small decentralized drinking water and sanitation systems in the area.
- ▶ The strategies to provide the population of urban-rural interface territories with drinking water must be carried out through a comprehensive understanding of the territory, involving the water company, the municipality and the residents. They have to start from the socio-economic diversity, inhabitants' needs and the recognition of the importance of the access to water. The municipality is the most capable to lead this process since the territorial administration and planning as well as the provision of water services fall within its competence.
- ▶ Agreements between the different social actors and government levels are required in order to act in coordination. If measures are taken within the framework of the particularities of the urban-rural interface territory, meeting the demands for access to services, especially water and sewerage, could be less expensive and more efficient.

<sup>1</sup> López, J. F.; Delgado, D. L.; Vinasco, L. (2005). La interfase urbano rural como territorio y espacio para la sostenibilidad ambiental. Revista Ingenierías Universidad de Medellín, 4, 29-41.

<sup>2</sup> Allen, A.; Dávila, J.; Hofmann, P. (2005). Agua y saneamiento en la interfaz periurbana: Un vistazo a los cinco estudios de caso. Revista de ingeniería 22, (22). Retrieved from <http://www.scielo.org.co/pdf/ring/n22/n22a10.pdf>

<sup>3</sup> Hardy, S. (2011). Vulnerabilidad del sistema de abastecimiento de agua potable de La Paz. Subsistemas Achachicala y Pampahasi, La Paz: IRD, 81p. multigr.