

WATER ACCESS IN ISOLATED RURAL COMMUNITIES

Results report on the survey of homes in Avellaneda, Santiago del Estero

| EXECUTIVE SUMMARY



Engineering
Without Borders
Argentina



Ministerio de Agricultura,
Ganadería y Pesca
Argentina

Office of family, peasant and
indigenous agriculture,
Santiago del Estero Coordination

EXECUTIVE SUMMARY

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In 2021, Civil Association Engineering Without Borders Argentina (EWB-Arg) and the Office of family, peasant and indigenous agriculture (SAFCI), Santiago del Estero Coordination, implemented a survey of the water access situation in isolated rural communities¹ in Avellaneda, province of Santiago del Estero.

With the conviction that complex social problems require specific solutions, the aim of this report is to make public key aspects of the daily life of people living in scattered rural areas, particularly of the water access, availability and local strategies situations in order to contribute to the analysis and design of proper interventions and public policies that emerge from knowing the local reality. The results comprise a sample of 1076 homes in 60 rural areas and represents 40% of the population that lives in scattered communities in the Department of Avellaneda.

| APPROACH

Santiago del Estero province presents a continental subtropical climate with dry season and great range of temperature with an absolute summer maximum of up to 47°C (with high risk of extreme heat) and an absolute winter minimum of up to -5°C. The scattered rural population is located on the mount, a forest from which different survival resources come from, such as animals, fruit, medicinal plants, charcoal, and quebracho wood posts. Santiago del Estero is one of the Argentinian provinces with the highest index of Unmet Basic Needs (the Spanish acronym being NBI). ²

¹ We will also call these communities isolated or scattered rural communities.

² Santiago del Estero: 22.7% of the population with Unmet Basic Needs (NBI). Source: INDEC 2010 National Population and Homes Census.

LIFE IN ISOLATED RURAL COMMUNITIES

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The scattered communities in Avellaneda are in areas of difficult access. Most communities are accessed through roads in bad conditions and cannot be accessed at all during the rainy season. So, isolation is one of main characteristics in people's everyday life.

| COMMUNITIES

- **23.4%** can be accessed throughout the year (even during the rainy season) and, only
- **10.6%** of the roads are graveled.
- **80%** do not have a health center and, if there is one, it does not work.
- **60%** is located at 50km or more from the nearest health center with wards/hospitalization service.
- Only **48.9%** has a primary school in the area, and barely 10.6% has a secondary school.

| HOUSING

- The houses are mostly rancho-like: with walls made of adobe, dirt floor and roofs made of hay, mud and poles covered in silo bag nylon.
- Although most homes have a bathroom (outside the house), in **19.04%** of the cases evacuation takes place outside.
- **98.88%** of the homes do not have access to electricity. Although **68.09%** of the houses have photovoltaic solar panels, sometimes they are not enough for refrigeration.

| POPULATION

- **38.17%** of the inhabitants are minors under 14 years old and adults over 65 years old.
- **26.48%** of the homes report at least one member with some type of disability.³
- **12.55%** of the adults attended secondary school but only **5.83%** of them graduated.
- **24.73%** of the men have seasonal jobs outside their area or province, and in some communities, this is the case for more than 50% of them.
- In **76.28%** of the homes, women are exclusively in charge of the chores and care of other members of the family.

³ In qualitative terms, most cases of disability are due to low back and spine injuries.

WATER ACCESS SITUATION

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For years, these communities have collected water through collective or individual insufficient solutions and that have great impact on their quality life, autonomy and human rights access. The lack of water access forces people to drink unfit water for human consumption, affects their health negatively, restricts the development of familiar agriculture and self-supply, and has significant consequences on the time left for educational or productive activities.

Rainwater and the water brought by the tank truck are usually of the greatest quality available. Underground water contains high levels of salinity and, in some cases, arsenic. At certain extreme situations, some families resort to water reservoirs contaminated by animals. So, availability and storage of quality water is crucial for these communities.

OUTSTANDING RESULTS

- In **50.46%** of the homes, people drink water unfit for human consumption during the dry season.
- **64.09%** of the people depend on the tank truck for safe water.
- **96.9%** do not have enough storage and **65%** do not have any sort of storage infrastructure (tanks). During the dry season only **9.44%** use rainwater to cook and drink.
- In **88.47%** of the homes people must move to get water, more than **35%** of those do so on foot, and **45.61%** move more than once a day.
- In **82.4%** of the homes water is not treated in any way.

In relation to safe water access, the survey reveals a situation of emergency. We must keep in mind that this situation is aggravated by other inequalities such as the lack of health infrastructure or the economic situation that, in many cases, forces people to seasonal jobs for not having enough water to develop productive activities.

FINAL CONSIDERATIONS

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| ABOUT THE PROBLEM

- It is necessary to understand the dynamics of these scattered rural communities, otherwise the volume of water for human consumption can be understood as sufficient without considering that, at difficult times, the best quality water will also be used for animals.
- The survey revealed these communities dependence on the tank truck, especially during the dry season. It is worth noting this situation when the time comes for designing proper answers, so that every solution is oriented towards the communities gaining autonomy.
- Apart from the evident consequences of the lack of water access on people's health, the generalized practices of moving and dragging water every day also affect people in a negative way. From a comprehensive perspective of health, the uncertainty and the stress caused by the threat of running out of drinking water also affects people's health.
- It is also worth mentioning the negative impact particularly on women due to the housework overload: women are in charge of all the domestic work (productive activities, water management, chores and care) since men emigrate for seasonal jobs. In this scenery, any intervention in relation to safe water access will have a positive impact on the autonomy of women and girls, as long as they incorporate the gender approach in their designs and implementation.

| IN RELATION TO THE SOLUTION

- There are a number of different situations that urge us to think of solutions for each home, not only in terms of the infrastructure, but also in terms of training and water quality monitoring.
- Water storage and reservoirs for the dry season are an old and key strategy for the life in semi-arid regions, so any policy seeking to implement rainwater harvest and storage systems may have a significant impact given that these are common practices in the communities.
- Water and sanitation solutions for this type of communities must face technical, administrative, institutional, social and financial challenges that allow their implementation and, more importantly, their long-term sustainability.

- The possibility to create and implement public policies that solve the safe water access problem in scattered rural communities in this region requires, first and foremost to identify the needs, estimate the scope of the problem at a national level, prioritize the problem at national, provincial and local levels, assign public budgetary resources, make administrative processes and mechanisms adaptable, create effective agreements and alliances among different sectors and long-term planning.
- The solution lies in the popular knowledge of the communities, in the experience of social organizations working in the region and in the different Government bodies and levels committed to the rights of the communities.

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