

# HAVING WATER TRANSFORMS EVERYTHING

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**Invitation to learn about an initiative in  
"Tacioj" and "Dos Árboles" (Santiago del  
Estero, Argentina)**



**Asociación  
Civil**

**WATER**



# Purified water changes absolutely everything.

"When a community has access to clean water, it can completely transform everything in a positive way." This statement by the WHO, which is elaborated at length in its latest report on water in the world, gives us clear evidence of the dimensions that develop from drinking safe water. Here are the dimensions that are transformed:



Health



Access to food



Local economies



Education

# Project summary



## Problem

30 FAMILIES  
DRINK WATER  
CONTAMINATE  
D WITH  
ARSENIC  
EVERY DAY



## Solution

BUILD 1  
CISTERN  
PER FAMILY  
THAT  
COLLECTS  
RAINWATER  
FREE OF  
ARSENIC



## Costs

EACH  
CISTERN OF  
CEMENT  
PLATES  
COSTS US\$  
1000 (30  
WILL BE  
BUILT)



## Finalization

THE TANKS  
WILL PROVIDE  
16,000 LITERS  
OF WATER  
SUITABLE FOR  
HUMAN  
CONSUMPTION.  
THE 30  
FAMILIES OF  
TACIOJ AND  
DOS ARBOLES  
WILL NEVER  
DRINK  
CONTAMINATE  
D WATER  
AGAIN.

# ABOUT THE POPULATION



➔ THE COMMUNITIES OF TACIOJ AND DOS ARBOLES ARE LOCATED IN THE COPO DEPARTMENT (SANTIAGO DEL ESTERO, ARGENTINA)

➔ FOR THEIR LIVELIHOOD, FAMILIES RAISE GOATS, AND CHICKENS, AND SOME HAVE A FEW COWS. THESE ANIMALS ARE NOT MARKETED, THEY ARE RAISED FOR FOOD FOR THE HOME. IN ADDITION, MOST FAMILIES ARE HUNTERS.

➔ SINCE THERE ARE NO WATER NETWORKS, IT IS VERY DIFFICULT TO PLANT GARDENS TO PROVIDE VEGETABLES AND FRUIT. THEREFORE, THE DIET IS BASED ON FLOUR, RICE, MEAT AND EGGS. FRUIT CONSUMPTION IS UNKNOWN.



# Educacion

IN TACIOJ THERE IS A PRIMARY SCHOOL THAT SERVES ABOUT 90 CHILDREN. ON THE OTHER HAND, THE CHILDREN WHO LIVE IN DOS ARBOLES MUST TRAVEL ABOUT 6KM TO TACIOJ TO ATTEND SCHOOL. THE SECONDARY SCHOOL IS 32 KM AWAY. FEW CONTINUE ON TO SECONDARY SCHOOL. FOR THOSE WHO WANT TO CONTINUE STUDYING AT TERTIARY OR UNIVERSITY LEVEL, THEY HAVE TO TRAVEL TO THE CITY OF NUEVA ESPERANZA, WHICH IS 160 KM AWAY.

# Housing

THE HOUSES ARE MOSTLY BUILT OF ADOBE AND HAVE EARTH ROOFS. NO HOUSE HAS BATHROOMS AS WE KNOW THEM. SINCE THERE IS NO WATER NETWORK, IT IS IMPOSSIBLE TO IMAGINE THAT WATER CAN FLOW AND DRAIN THE TOILETS, AND THAT IS WHY MOST FAMILIES USE THE OPEN FIELD TO DO THEIR BUSINESS AND SHOWER..



# Economy

THE MAIN SOURCE OF INCOME FOR FAMILIES IS CHARCOAL AND POLE-MAKING. THUS, THESE SALES ARE THE ONLY POSSIBLE SOURCE OF MONETARY INCOME. IT IS IMPORTANT TO CLARIFY THAT IN ALL THE CASES MENTIONED, THE INCOME IS ONLY ENOUGH TO COVER FOOD AND HYGIENE ITEMS FOR A SHORT TIME.

# Infraestructure

THE NEAREST PAVED ROAD IS 60 KM AWAY AND THE NEAREST HOSPITAL IS 160 KM AWAY. IN ADDITION, THE TOWN HAS NO DIRECT POLICE PRESENCE, RELYING ON A POLICE DETACHMENT 22 KM AWAY. NO TELEPHONE COMPANY OFFERS SERVICES IN THE TOWNS AND THE NEAREST ANTENNA THAT TRANSMITS INTERNET IS 15 KM AWAY.



# Leadership

THERE IS NO CLEAR LEADERSHIP IN THE AREA, IT IS NOT FOCUSED ON A PARTICULAR PERSON OR FAMILY. THE LINK BETWEEN EVERYONE IS VERY HORIZONTAL, BUT THE LACK OF ORGANIZATION AND REAL ARTICULATION IS DETRIMENTAL TO THE DEVELOPMENT OF BASIC SERVICES. IN ADDITION TO ALL THIS, THE LEADERS ARE NOT PRESENT IN AN EFFICIENT AND ACTIVE MANNER.



# Culture

PEOPLE IS VERY FRIENDLY, OPEN AND HELPFUL. ALL THE HOUSES ARE OPEN TO RECEIVING ANYONE AND THE FEELING OF BELONGING TO NATURE AND HARD PHYSICAL WORK ARE CHARACTERISTIC.



# PROBLEM

TACIOJ AND DOS ARBOLES LIVE DAILY WITH TWO MAJOR NATURAL PROBLEMS: WATER CONTAMINATED WITH ARSENIC AND THE WARM SEMI-ARID CLIMATE.

IN ADDITION TO TRAVELLING LONG DISTANCES OF UP TO 8 KM, THE WATER THEY USE FOR DRINKING, COOKING, WASHING AND BATHING IS CONTAMINATED WITH HIGH LEVELS OF ARSENIC, THE CONSUMPTION OF WHICH INCREASES THE LIKELIHOOD OF DEVELOPING CANCER, SKIN LESIONS, CARDIOVASCULAR DISEASES AND NEUROTOXICITY.

THE WARM SEMI-ARID CLIMATE RESULTS IN 2 WELL-DEFINED SEASONS: RAINY (OCTOBER-MARCH, AROUND 500 MM/YEAR) AND DRY (APRIL-SEPTEMBER).



# SOLUTION

## Cisterna de placas de cemento



As we did in the town of Babilonia for 30 families, we will also offer a cistern solution in Tacioj and Dos Árboles that collects rainwater and has a capacity of 16,000 liters. The cistern follows the model developed by INTA and has been proven to be a very effective solution throughout the region.



How does it work? Through a zinc sheet roof over the houses, water is collected, stored and, as it is rainwater, is not contaminated with arsenic. This structure, being closed, prevents contact with external agents, reducing the probability of bacteriological contamination.



How much does it cost? Building a cistern costs US\$1,000. This includes all the materials, labor, and management of the cistern. It is important to clarify that, as happened in Babylon, each family agrees to dig the well where the cistern will be built and to provide an adult helper during the entire construction period, which will take the expert bricklayer to build cisterns.



To dream of sustainable, autonomous and responsible communities, it is necessary to address some primary needs that provide their inhabitants with concrete solutions. Our initial aspiration is that the inhabitants of Tacioj and Dos Árboles have water in their homes, and quality water. Only in this way will we begin to create together the dream of communities that begin to dream of themselves.

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