

Global Grant Proposal



Irrigation Water Supply Project

September 2021

Project Summary

In partnership with the Rotary Noon Club of Athens and other clubs of district 6690, Ohio University, Pontifical Catholic University of Ecuador and the Municipal Government of Calvas, the Rotary Club of Loja aims to implement an irrigation water supply system in three rural communities (Bellamaria, Chaquizhca, and Guara) of Calvas county, in Loja province, southern Ecuador. This project will benefit 75 subsistence farming families' households who live under precarious conditions and struggle to maintain a yearly agricultural production due to a dry seasonal climate of the area.

The socioeconomic challenges these communities face are malnutrition, limited access to health services, inadequate housing infrastructure, low quality educational services, food insecurity, and a lack of employment opportunities. All these factors contribute to the high rates of poverty and disease; in fact, some families survive on less than two dollars a day.



Loja has a high prevalence of chronic malnutrition, where children are the most affected. It is estimated that about 31.6% of Lojans suffer from some type of malnutrition and/or chronic degenerative diseases. Previous studies have shown that households in the region tend to compromise food access as one of the first responses when they experience economic stress.

The Problem

Over the last three years, we have worked with the communities of Bellamaria, Chaquizcha, and Guara in Loja province, Ecuador, to implement household productive gardens. However, the lack of water for irrigation purposes has limited the success of the project and only 18 of the 75 gardens planned are successfully growing and producing. This is due to unreliable water supply during the dry season. Some families have even used their drinking water for the gardens, which is not sustainable and causes a shortage of water for human consumption. Furthermore, the inability to successfully produce nutritious food through their gardens increases preexisting rates of malnutrition.

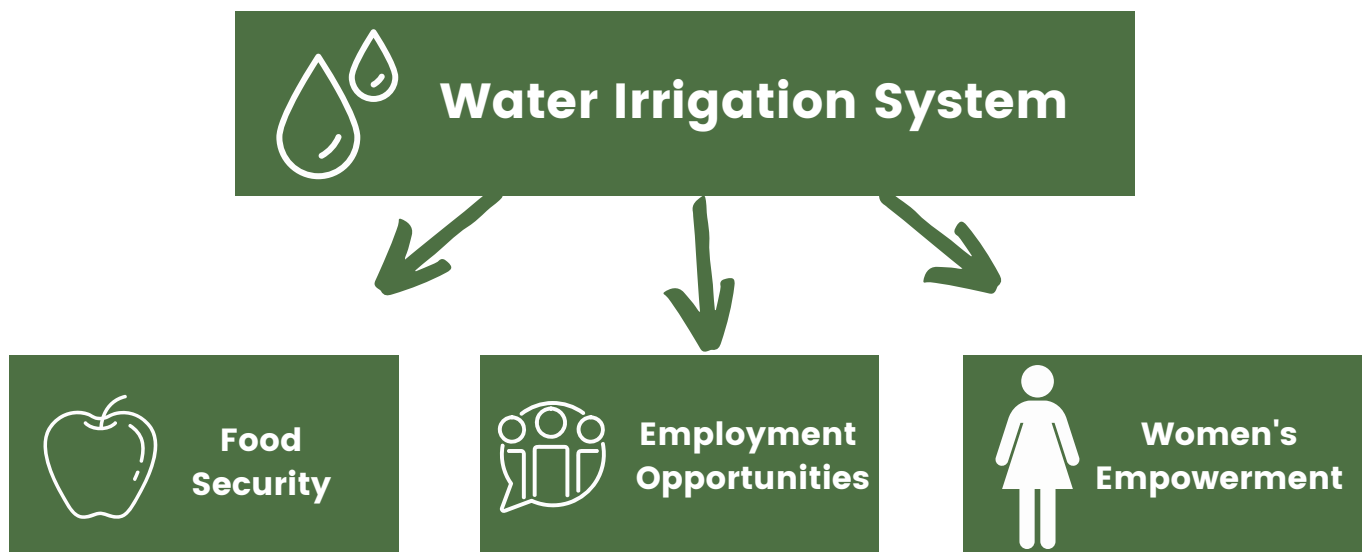
only 18 of 75 gardens were successful



The Solution

The implementation of a proper water irrigation system is necessary to ensure the success of the productive gardens. Thus, we are seeking funding to implement an irrigation water supply system in Bellamaría, Chaquizcha, and Guara. The project's overall goal is to bolster agricultural activities in the area to provide a sustainable income source for the families living in these communities. Furthermore, the food security, nutritional status of the rural families, and the development of networks or associations between families of the same community or adjacent communities through sharing goods would also be promoted through the improvement of the agricultural system, therefore through implementing a successful irrigation water supply system.

Therefore, this project will enhance the well-being of all members of the communities. Additionally, the project intends to promote women's empowerment, considering that women are mainly the ones that manage the productive gardens and sales in the market. The reinforcement of women's participation in their community will enable women to contribute with income generation to their families from a place right next to their houses. This contribution has been proven that improve their self-esteem and self-appreciation.



Project Development and Sustainability

All members of the communities are committed to maintaining the irrigation system. They will continuously supervise its operation and ensure its correct use and operation. To ensure the irrigation water system's sustainability. Each family will pay a \$5 monthly fee, that will cover the cost of an operator and supplies. Water usage will be metered and a surcharge will be applied for use exceeding the monthly allocation.

Community Involvement

System Training and Maintenance

Nutrition and Health Workshops



Once the funds are obtained, all the materials will be acquired, and alongside the certified engineers with experience in the construction of irrigation systems, the construction will take place. Under the direction of a local contractor, the community members will be in charge of the aforementioned construction. The communities will organize groups to provide the labor and resources needed to bring materials to the construction area and manage community groups to provide food and shelter to engineers and construction workers.

Budget Summary

Below is the budget summary for the three communities of Bellamaria, Chaquizhca, and Guara. Please see the budget breakdown for each community on the following page.

SYSTEMS		
1	BELLAMARIA	\$52,966.61
2	CHAQUIZHCA	\$34,074.95
3	GUARA	\$ 5,358.43
	Rotary Request	\$92,400.00
4	COMMUNITY CONTRIBUTION (Un-skilled labor)	\$21,252.00
	Total	\$113,652.00

Total Request: \$92,400.00

Budget Breakdown

Bellamaria

BELLAMARIA IRRIGATION SYSTEM		
Item	Activity	Estimated Cost
1	Catchment water works	\$929.27
2	High Passage 1 L= 56m	\$988.16
3	High Passage 2 L= 25m	\$528.08
4	High Passage 3 L= 33m	\$570.58
5	Conduction Pipeline	\$19,810.70
6	Pressure reduction valves	\$1,099.36
7	Pressure Reduction Tank	\$610.87
8	Reservoir Tank	\$3,256.94
9	Distribution Pipeline	\$15,891.92
10	Productive Gardens Conexions	\$5,280.73
11	Reforestation	\$0
12	Training workshops/ Technical Supervision	\$4,000
Total		\$52,966.61

Chaquizha

CHAQUIZCA IRRIGATION SYSTEM		
Item	Activity	Estimated Cost
1	Catchment water works	\$2,164.71
2	High Passage 1 L= 56m	\$514.22
5	Conduction Pipeline	\$7,102.99
6	Pressure reduction valves	\$614.21
8	Reservoir Tank	\$3,256.94
9	Distribution Pipeline	\$9,925.58
10	Productive Gardens Conexions	\$6,496.30
11	Reforestation	\$0
12	Training workshops/ Technical Supervision	\$4,000
Total		\$34,074.95

Guara

GUARA IRRIGATION SYSTEM		
Item	Activity	Estimated Cost
1	Productive Gardens Connections	\$ 4,358.43
2	Training workshops/ Technical Supervision	\$ 1,000.00
Total		\$ 5,358.43

Rotary Clubs		
Loja Club	\$ 5,000	
Athens Noon Club	\$ 14,000	
Other Clubs	\$ 14,000	
Subtotal		\$ 33,000
District Match 100%		
District 4400	\$ 5,000	
District 6690	\$ 28,000	
Subtotal		\$ 33,000
Rotary International Global		
80% of District		\$ 26,400
Grand Total		\$ 92,400

Thank You

