

## CALL FOR FUNDING AND PARTNERS

### Rotary Global Grant: Rainwater Harvesting in the Independence Aquifer 2017-18

Area of Focus: Water and Sanitation

Where: Independence Aquifer, Guanajuato, Mexico

Who: Rural villagers who are willing to self-construct family cisterns in their homes and the homes of their neighbors.

Why: Due to the declining levels of the aquifer, villages now either have no water whatsoever or the well water is contaminated with arsenic and fluoride exceeding WHO standards. This is resulting in a variety of irreversible serious illnesses including diminished IQ levels, dental and skeletal fluorosis, kidney failure and cancer.

Objective:

- To build 282 rainwater harvesting cisterns providing 1,700 persons with safe and potable water for drinking and cooking.
- To educate rural inhabitants about water issues in the Independence Aquifer.
- To train workgroups of six families to self-construct their own cisterns.
- To train beneficiaries in cistern maintenance and repair.

Amount needed: \$199,400

Host Club: The Rotary Club of San Miguel de Allende MIDDAY

International Partner Club: Rotary Club of Simi Sunrise

When: November 2017 to December 2018

Contact:



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Rotary San Miguel MIDDAY

Water harvesting: <http://02h2o.blogspot.mx/>

See our video: <https://vimeo.com/user10520825/review/83880880/2ba8f337f8%20>

Rainwater Harvesting Program  
Rotary San Miguel MIDDAY  
San Miguel de Allende, GTO México  
April 26, 2017

Rotary San Miguel MIDDAY is seeking a Global Grant in the amount of US\$199,400 for education, construction materials and training for construction of 282 water harvesting systems in the region of the Independence Aquifer, Guanajuato, Mexico.

**The Problem:** The Independence Aquifer in the state of Guanajuato, Mexico is declining at a precipitous rate and the remaining ground water is being contaminated by excess fluoride and arsenic leeching out of the volcanic bed rock. Many rural villages have the problem of no water (declining water table) or water that is not drinkable due to excessive mineral contamination. The consumption of the contaminated water leads to severe long term health problems to the eco-skeleton system that are irreversible. Children drinking this water can have a diminished IQ level of up to 20%.



**Our Solution:** Rotary San Miguel MIDDAY has developed a 12,000 liter family rainwater harvesting system that can be self-constructed by work teams to provide themselves safe, potable drinking water on a year round basis. This provides "ownership" among the recipients and the labor they supply reduces the cost per cistern by one-half of what it would cost to pay outside contractors to build them. The cisterns are filled during the annual summer rainfall so dwindling ground water is no longer an issue. A single cistern can serve a family of up to 8 members. With minimal, low cost maintenance, the cisterns will last families for multiple generations.

**Our History and Achievements:** The water harvesting program was begun in December 2008 by Rotarian Laura Stewart. To date, 1,100 cisterns have been constructed in 50 villages. There have been 23 international Rotary partners and eleven international district partners participating in previous projects. US\$658,172.00 has been invested in these projects. Over 6700 people have substantially benefitted as a result of these projects.

**The Waiting List:** There are over 300 families waiting to be awarded project resources from our next grant. They are all members of regional water councils managed by our cooperating partner, CEDESA. All are in the process of completing the prerequisites to be considered for Rotary resources.

**The Process:** The success of our water harvesting projects depends on a "process" that is carefully followed by all of those involved. There are 3 main players involved in this process: CEDESA, a local non-profit with 52 years of experience in community development, provides the technical expertise and community development skills acting as Rotary's cooperating partner. Rotary San Miguel MIDDAY hosts the projects, funds the materials and provides project management. The Communities do all the work of

organizing, and constructing. The families continue to maintain the water collection systems once the project is completed.

**How does it start?** A community approaches Rotary/CEDESA via word of mouth after seeing proof of concept in other communities with completed rainwater harvesting systems. The community is invited to attend assemblies of the regional water councils to learn about the process. Here they learn what they need to know. After attending several assemblies, community representatives do a survey of people in their own community. They create a list of who are interested. To join that list members are made aware of their obligations of participation and self-construction. Once this list of families is complete and they have done their job of spreading the information, the new community representatives coordinate an assembly in their own community and they invite Rotary and CEDESA to attend.



**The process continues this way:** Follow up meetings are planned. At each assembly CEDESA teaches the basics of running an assembly/meeting. The community members elect a moderator and a record taker for each meeting. They record attendance, call for an agenda, prioritize the agenda, and work through the points raised (including follow-up of action points from previous meetings). A portion of each meeting is used to educate the beneficiaries about water and sanitation issues.

To complete the pre-qualification phase for a community water project, a final list of families wishing to participate is created after participating for many months in regional water assemblies. An adult representative of each family must attend all of the meetings. They must complete the three day water education program and then attend and work at the five demonstration/pilot construction days to learn the technical skills required to then build their own cisterns. To have reached this point in the project, a family will have invested 50 or more hours in attending meetings, visiting other communities and building the pilot.

At this point, the families are formed into work groups of six to seven families each. These groups will work co-operatively together to construct the cisterns for all of the families within their group.

Once the pilot is completed, the groups are ready to invest 200 more hours per family to build their own cisterns. The CEDESA technician in charge of the project goes with each of the families house by house to verify the measurements and cistern location. The materials order is placed by Rotary and when delivered, the work begins. Rotary continues to meet regularly to review progress, to discuss and resolve issues and to keep momentum going. A CEDESA technician is available for troubleshooting throughout the construction process. At the completion of all the cisterns a celebration is planned.



**The Proposal:** Rotary San Miguel and the Rotary Club of Simi Sunrise are seeking international rotary clubs and districts to participate and contribute to this Global Grant that is scheduled to begin in late

2017 and be completed in December of 2018. We welcome all participants who wish to be involved at any funding level.

For additional information, please contact Rotarian Lee Carter. [leecarco@gmail.com](mailto:leecarco@gmail.com)  
Telephone: (52) 415 151-0176.

To see a short video on the San Miguel Rotary Water Harvesting project, go to:  
<https://vimeo.com/user10520825/review/83880880/2ba8f337f8>

(Great video but the statistics are out of date)

We have a blog which covers all of our past work in detail. See: <http://02h2o.blogspot.mx/>

