

Impact of Global Grants in Guatemala

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The Barrington Breakfast Rotary Club (BBRC), District 6440 in partnership with Club Rotario Guatemala Sur, District 4250 has been engaged in global grant projects in Guatemala since 2011-12. We concentrated on the needs of people in one geographical area called “Sumpango,” Sacatepequez Department, all throughout these years and carried out the following two major initiatives which expanded over time in both breadth and depth.

- The mechanical cow (also known as soy cow) project is focused on combating malnutrition and establishing microenterprise for women. The mechanical cow is a machine which processes soybeans, water and steam to produce a slurry that can be separated into soy milk and a solid byproduct called “okara.” The soy milk and okara are protein rich and are being used to combat malnutrition.
- Water, Sanitation and Hygiene (WASH) in schools’ projects are focused on disease prevention and treatment of children and improving hygiene conditions within the community.

These two initiatives complement each other and collectively have made a significant impact on health within the community.

Outcome and Impact:

We start with a quote from Paul Harris, “Whatever Rotary may mean to us; to the world it will be known by the results it achieves.”

Our projects produced results helping thousands of children and hundreds of adults in the Sumpango municipality, Guatemala. A few highlights are given below for each project:

Mechanical cow:

Three mechanical cows are currently operational and five more are being installed. Upon their completion:

- Over 5,000 children in the age group 1-5 years will be receiving soy milk to address their chronic malnutrition issues
- Dozens of pregnant and nursing women will be receiving soy milk to help growth of the new born
- Hundreds of families will be receiving okara to blend with their tortilla flour to enhance protein intake for the entire family
- Dozens of women will be engaged in microenterprise to start their own businesses to make and sell okara fortified food products.



WASH in Schools:

- Over 5,000 students in nine elementary and seven secondary schools have access to clean water, 24/7, considerably reducing water-borne diseases and the incidence/frequency of diarrhea, fever, fatigue and stomach worms.
- The availability of flush toilets has helped all, particularly female students, improving hygiene conditions within the community.



- Clean water has been provided in kitchens in each school to improve hygiene conditions.
- WASH in schools has resulted in a behavioral change within the community with hand washing as part of daily routines.

The availability of protein rich soy-milk and okara complemented with clean water and sanitation in schools has long term impact on children and adults. Latest government report shows a 5% improvement in nutrition rate in Sumpango in recent years. The sustainable improvements in nutrition and health of children will follow them throughout their lives as they grow to be adults. The microenterprise creates opportunities for economic growth and independence.

Our story of the mechanical cow and WASH in schools is described below in four phases spread over the following four global grants with a total budget of about \$600,000 over a five-year period.

1. Phase I: Global grant, (#GG25333), for the first mechanical cow
2. Phase II: Global grant, (#GG25643), for Water, Sanitation and Hygiene (WASH) in schools for nine elementary schools
3. Phase III: Global grant, (#GG1411300), for two more mechanical cows and expansion of WASH in schools' project for additional seven secondary schools
4. Phase IV: Global grant, (#GG1525739), for five more mechanical cows

PHASE I: Related to our first mechanical cow global grant

- Our club's first matching grants project in Guatemala was related to the distribution of 200 water filters in the Sumpango community during 2009-10.
- During our visit to Guatemala in March 2010 to distribute water filters, we visited a vocational center to see and learn about the mechanical cow. This was used to produce high protein content soy milk for the children, which helped address their serious malnutrition problems. We were intrigued by the prospects.
- We learned that significant percentage of Guatemalan children are lactose intolerant and could not digest milk from animals. This has resulted in a serious malnutrition problem. High protein soy milk provides a viable option.

- During the same visit, we attended the weekly meeting of the Guatemala Sur Rotary Club and met RID Jorge Aufranc for the first time.
- Upon our return, we started to research the details about the machine: several avenues were pursued:
 - Talked to and received detailed specification from “Malnutrition Matters,” the organization in Canada that originally designed and built the machine
 - Talked to an Indian firm, Pristine Plants India Pvt. Ltd., Delhi, India, which manufactures the machine, received specifications and more information
 - Visited the “National Soy Research Laboratory (NSRL)” associated with the University of Illinois at Urbana and met with their food and nutritional scientists, who are experts in soy-related information. Nick Scates from the laboratory gave us a demo of the machine producing soy milk.
- We were now convinced to sponsor this kind of project with a goal to combat malnutrition among children. We talked to Jorge and he agreed to have the Guatemala Sur club as the host club partner.
- We talked to Jeff Sprecher, Director of “Mission Impact,” a local NGO in Guatemala about installing the machine at their girls’ school. They accepted the proposal to partner with BBRC on this project.
- Then we faced a major challenge. Our district was not allowed to sponsor global grants into Guatemala due to the previous “Future Vision” initiative of the Rotary Foundation.
- We talked to the Rotary Foundation staff and after considerable research we developed a roadmap that would make it possible for us to sponsor global grants under the prevailing rules. Meredith Burlew and Maria Emig of the Rotary Foundation approved the roadmap.
- The solution was to partner with a Future Vision pilot district and work through its leadership.
- The next challenge was to find a Future Vision pilot district that would partner with us. We talked to Past District Governor (PDG) Bruce Baumberger, the then incoming District Governor (DG) for our district. He facilitated a meeting between D6420 and our leadership in Montreal in June, 2010 at the Rotary International Convention. We had a partner with PDG Elise Cadigan as our point of contact with District 6420.
- The next challenge was to raise funds. We approached other clubs within our district and were very successful in getting partners. This was the first global grant project with partnerships among clubs within our district.
- For the application, we answered several questions before the global grant was approved by Maria Emig, Grants Officer.
- The total budget for the grant, (#GG25333), was just under \$60,000. In addition to the mechanical cow, it also included the establishment of Rotary Vocational Center at Vida y Esperanza School by providing wood and metal working equipment.
- The machine was installed at the Proximos Pasos Elementary Girls’ School operated by Mission Impact. It continues to be fully operational today, five years later. Over 150 girls from that school are receiving soy milk daily.
- At this point, we realized that okara was not being well utilized and being thrown away. Rotarian Mary Holcomb of the Barrington Breakfast Rotary Club came up with the idea of blending okara with many of the food items such as tortilla flour.
- This idea evolved further over time into development of microenterprise businesses for local women to prepare and sell okara fortified products.

Brag Time: Mirna Perez, Principal of the Proximos Pasos Girls School, was invited to make a presentation about the project at the Rotary International Convention held in Lisbon in June, 2013.

RI Past President, Gary Huang reviewed the mechanical cow facility at Proximos Pasos Girls School in 2014.

PHASE II: Related to our WASH in schools' global grant

This phase involves another global grant related to Water, Sanitation and Hygiene (WASH) in Schools.

- Our relationship with Jorge and the Sur Club was developing nicely during 2011-13. We learned about their five-year plan to work in the Sumpango area.
- The Sur Club identified the area of water and sanitation as a priority for nine elementary schools in Sumpango. For over a year we had several exchanges about the scope of the project. We visited Sumpango, met with the mayor, Lic Efraín Paredes Gerónimo, visited the schools and talked to the principals.
- The project entailed installation of underground pipes etc. to bring water to each of the nine elementary schools from a nearby source. It also included installation of a water tank and distribution of water to drink stations, toilets and the kitchen within each school. Flush toilets with septic tanks were to be built at each school also.
- The Sur Club asked us to be the international sponsor and work on raising funds. It was a major challenge to raise over \$150,000 including matches.
- After some careful thought, we decided to start a fundraising campaign. We visited and made presentations to over 20 clubs within the district. We ended up with substantial pledges.
- Jorge introduced us to one of his friends, William Lemon, in District 7820 in Canada for support of the project. Our interaction with him and later with Robert Earle resulted in their club/district committing substantial club cash and the District Designated Fund (DDF) for the project.
- Another parallel effort was needed to convince Past District Governor (PDG) Elise Cadigan in District 6420 to allow the second grant to go through their district. After several discussions, she agreed with a few conditions.
- The next base to cover was to have approval from Maria Emig, the grants officer at the Rotary Foundation. She was extremely helpful. She advised us about the structure of the application to enhance approval and avoid whole lot of questions later. She had very worthwhile suggestions!
- Having covered all the bases, we applied for the grant, (#GG25643), with a budget of \$154,000, received approval and moved forward with the implementation.
- The project has been successfully completed and is having great success helping over 3,500 students at these nine schools in alleviating water-borne diseases and improving school attendance.
- This was exclusively a water, sanitation and hygiene (WASH) in schools' project.

Coincidentally, about two years after we initiated this project, the Rotary Foundation announced a new initiative called "Water, Sanitation and Hygiene (WASH) in Schools" focused in five countries: India, Kenya, Guatemala, Honduras and Belize. We just happened to be a few steps ahead of this initiative.

Brag Time: Mr. Jorge Luis Chiquito, Principal of El Tunino School, Sumpango highlighted this project before the District Governor Elects from around the world at the RI' International Assembly held in San Diego in January, 2014

RI Past President, Gary Huang inaugurated the WASH facilities at Santa Marta School in 2014.

Phase III: Related to another global grant combining two more mechanical cows and expansion of the WASH in schools' project

1. Mechanical cow:

- As part of the five-year plan, the Sur Club wanted to address the malnutrition problem in Sumpango. This led to many discussions with the mayor of Sumpango. He visited the facility at Proximos Pasos School and received a good understanding of the mechanical cow project.
- Jeff Sprecher, Director of Mission Impact, facilitated multiple visits from Sumpango people and several Rotarians to view and receive suggestions and instructions regarding the mechanical cow installation and operation based on the experiences from our first installed machine located at their girls' school.
- The mayor was convinced and wanted to have mechanical cows installed in his community to combat malnutrition problem.
- Major challenges were addressed:
 - 1) Facility: We needed two good sized rooms, one for production of milk and the other to serve as a kitchen. We reviewed and rejected several options from the mayor. He finally found space and agreed to build the two new rooms and pay for their construction.
 - 2) Operational cost: We wanted sustainability and wanted the mayor to hire people, pay for electricity, gas and water, etc. He finally went through the municipality council to approve these costs.
 - 3) WASH: In conjunction with the mechanical cow project, we also expanded the WASH in schools' project to include seven secondary schools.
 - 4) Fundraising: We were now looking at a project in the \$200,000 range with its own challenges. Our district clubs came through: we had several repeat partners. It was much easier this time around. Rotarians knew that we make things happen, resulting in us gaining trust and confidence.
 - 5) Fundraising: Our Canadian friends in District 7820 came through with substantial funding. We expanded our partner base with approximately two-thirds of the total funding coming from outside D-6440.
- With all bases covered, we applied and received approval for grant, (#GG1411300), with a budget of \$194,000. This time around, we could apply directly without having to go through D-6420.
- The mayor followed through with the building of the two rooms.
- We installed two new mechanical cows and implemented the milk and okara distribution system and developed a microenterprise business for women.
- We also equipped kitchen facility with appreciate appliances.
- The mayor also followed through by hiring staff to run the facility and paying for the operating costs. He has also taken responsibility to distribute soy milk to children in various villages.
- The mayor also assigned Rosario Cotoc, a social worker, as an interface with Rotary. She helped us navigate through various entities such as the municipality, schools and the community to facilitate project work. She has worked tirelessly to advance the projects to local women establishing goodwill and credibility.
- The project was inaugurated in February 2015.

2. Vocational Training Team

- With respect to global grants, the Rotary Foundation promotes training in the host countries via a program known as "Vocational Training Team (VTT)." Under this initiative, a team of experienced professionals visits the project site and conducts training for the local people.

- The Barrington Breakfast Rotary Club (BBRC) took advantage of this initiative and sent a team consisting of Suzanne Gibson, Mary Holcomb, Jeff Wieneke, Mark Gibson and Narayan Murarka to Sumpango, Guatemala during February 2015.
- To be better prepared, the team consulted in person with the staff and directors of NSRL and Professors William Helferich and Juan Andrade in the Food Science Department at the University of Illinois. The focus to provide soymilk to children age 1-5 and pregnant and nursing mothers was reviewed and endorsed by them.
- To further increase our base of knowledge, Mary Holcomb and Suzanne Gibson attended the week-long training at NSRL's International Soybean Program. The program is aimed at improving human nutrition around the world through the expanded use of soybeans and its associated products.
- The training consisted of advising the local women about the benefits of soy milk to combat malnutrition. They also learned about the microenterprise business opportunities by producing and selling soy-blended food products to the public. Over 80 women received training.
- Based on our assessment, it appears that the Sumpango women community understands the importance of nutrition and the benefits of soy milk and okara. Their children are recipients of the soy milk. They themselves make tortillas by blending flour with okara.
- During the training program, Maria Sixta Cuma Perez from the Proximos Pasos Girls' School played a key role. She was really a linchpin in our vocational training. She has credibility with the local women that we simply did not have. And, in turn, she became a spokesperson for us to many in her community.
- Special mention needs to be made about five women who started their enterprise some two years ago. They have learned a lot about capitalism and making money. They are happy making and selling their products for a profit in an expanding market.
- The Vocational Training Team (VTT) aspect of the project is the first and only one sponsored by our district to date.

The project is going on at full speed, providing soy milk to over 1,000 children, solid byproduct okara to dozens of women and microenterprise for several local women.

3. WASH in Schools:

- The other component of this grant was to duplicate what was done for the nine elementary schools to seven secondary schools. This was a continuation of the similar earlier work for the elementary schools described under Phase II. Work is ongoing with completion expected by summer 2017.
- About 1,000 additional students will benefit from this aspect of the project.

Phase IV: Related to another global grant for the installation of five more mechanical cows

- During the two years of Phase III, four Guatemalan Rotary Clubs got together to form a "Rotary Pro-Nutrition Committee" with a specific goal to install many more mechanical cows to combat malnutrition problems. The Barrington Breakfast Rotary Club was invited to be an honorary member of the committee.
- A new business model was developed with a requirement for an established NGO to operate the entire operation at a facility provided by them and pay for the operational costs. The cost can be offset by selling part of the milk, okara and food products. This was also part of their role to carry out social services for the community. Rotary will provide the equipment and training.
- Discussions were taking place on several fronts. There were several challenges as usual:
 - 1) The major challenge was to find local NGOs who can provide facilities and pay for operational costs. Invitations were issued to some 30+ NGOs within the country seeking their interest,

capacities and commitment levels. After a careful assessment, five NGOs were selected for the project. It turned out that they are scattered around with considerable distances from Guatemala City.

- 2) The next challenge was how to manage these five scattered NGOs from Guatemala City? It was concluded that the host club is not positioned to do so by itself. We came up with a franchise system. The concept was that another local Rotary club close to the NGO facility would monitor and manage the project under the supervision of the primary Host Club. After considerable back and forth, we signed up four Rotary clubs to participate with one of these four working with two NGOs.
- 3) Fundraising to \$175,000 was a challenge. We are so fortunate that we did not have much of a problem in raising funds. We have multi-country, multi-district and multi-club partnerships.
- We applied and grant, (#GG1525739), was approved recently with a budget of \$175,000.
- Mechanical cows have been ordered from the Indian company with expected delivery in March/April 2017. In the meantime, the NGOs are in the process of upgrading their facilities and receiving training.
- The goal is to have five new mechanical cows installed in five different communities. This will serve over 4,000 children with soy milk, provide okara to a few hundred families and have microenterprise businesses operated by dozens of women.

With the completion of phase IV, eight mechanical cows will be operational.

Thanks to our Partners:

The partnership has been the primary factor why these projects have moved forward to the current successful state. Many individuals have worked together as a team to make things happen:

- The Barrington Breakfast Rotary Club supported the project whole-heartedly as lead club under different leadership over the years. The principal players are Narayan Murarka, Suzanne Gibson, Mary Holcomb and Mark Gibson.
- The Guatemala Sur Club members are dedicated, committed, hard-working and passionate. They get things done!! A dozen members committed themselves to these projects going to Sumpango on a weekly basis to oversee progress and plan future activities.
- Special kudos to Rotarian Francisco Viau, who served as project manager during the entire time and was engaged in planning and implementation aspects of the projects. Also, Rotarian Enrique Baudrexel needs to be complimented being the primary technical brain behind the mechanical cow equipment and its operations.
- The Rotary Foundation grants officer, Maria Emig was immensely helpful. Kudos to her for her advice, guidance and support.
- The Rotary Foundation was a major financial partner contributing about two thirds of the total funding of these projects.
- We are very grateful to District 6420 which was instrumental in us getting started.
- We are very fortunate to have support from D-6440 clubs as funding partners in support of the four global grants which add up to about \$600,000.
- District 7820 was another major contributor of funds. We are grateful for its support.
- The Sumpango Municipality supported the project wholeheartedly. For a governmental entity to do what they said they will do is very admirable.
- School principals were very helpful in all aspects.
- Local community people contributed so much sweat equity. Sumpango people love Rotary.

This is our story of SERVICE with IMPACT

- Our project responded to the NEEDS identified through many meetings with community members and leaders over a long period. Thus, the project became a community project as opposed to “our” project.
 - We built alliances among people with various stakes to come together and define, implement, and enjoy the benefits. This involved the Sumpango Municipality Government, school principals and teachers and various NGOs. The community people in various trades contributed sweat equity with their time and effort to build things required for the projects.
 - We pursued the theme “Bigger, Better and Bolder.” We chose to have large projects both in scope and budgets resulting in benefits for thousands of children and adults.
 - The availability of protein rich soy-milk and okara complemented with clean water and sanitation in schools has long term impact on children and adults. Latest government report shows a 5% improvement in nutrition rate in Sumpango in recent years.
 - The sustainable improvements in nutrition and health of children will follow them throughout their lives as they grow to be adults. The bottom line is that the children and adults in the Sumpango Municipality will enjoy tremendous uplift in their lives.
 - We created “partnerships” among our Rotary friends within multiple districts and clubs – a hallmark of Rotary’s Four Way Test: “Will it build GOODWILL and BETTER FRIENDSHIPS?”
 - Relationships that have developed over these years are significant. We have all developed a greater understanding and appreciation of each other. We teach and support each other. We challenge each other when called upon. And, yes, things get done. But we are also building community. And an international community at that. This is no small feat and very much aligns with Rotary's commitment to promoting peace.
 - There is an impact as well on us as individual Rotarians having a sense of satisfaction and accomplishment.
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