



EWB: Central Houston Chapter Meeting

July 2013



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Agenda

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|-------------|--------------------------------|
| 7:00 – 7:05 | Meet and Greet |
| 7:05 – 7:35 | El Salvador Program Update |
| 7:35 – 7:45 | Poverty Traps |
| 7:45 – 7:55 | Upcoming Events and Miscellany |
| 7:55 – 8:30 | Breakout Sessions |



El Salvador Program Update

- Team





El Salvador Project

Project Leads

- Nancy Kralik
- Jose Moreira (our link to the past!)



Project Overview

- Apparent issues with water well installed in 2007
- Taking 18 hours instead of 8 hours to fill tank with well water; electricity expenses are unsustainable

Project Details

Location

- Colonia Esmeralda, El Salvador (area of San Salvador)

Previous Work

- Water well installed
- Retaining wall installed

Assessment Trip

- Occurred January 12 – 19, 2013
- Post-assessment report submitted Feb. 25
- Accepted by EWB-USA with no changes

Assessment Trip

Team Members

- Nancy Kralik
- Hugo Salinas
- Laura Styles
- Cyndi Castro
- Jose Moreira – US Contact

Purpose

- Oversee / review installation of new water-well pump and associated piping from the well to the storage tank
- Seek potential projects in both the community and neighboring communities.

Request for Assistance

- Team revived chapter's previous relationship with Esmeralda II that ended in 2007
- Community requested assistance with water delivery system that was requiring considerably more hours of daily operation (and more money for electricity)
- Engineer Molina confirmed pump was issue; Rotary Sur member
- Through request of chapter, Rotary Humble provided funding for water supply improvements and asked team to work with community and Engineer Molina to oversee improvements



Evaluation of Water System

- Interviewed and met with community leaders and members to determine why daily operations were considerably longer, thereby increasing electricity costs
- Community leaders - pump failure was cause
- Team's analysis - increased population, with associated higher water use
- Examination of pump - No issue
- Follow-up – improvements have not lowered electricity consumption



Findings of Trip

- Operation of distribution system not performed as designed by previous EWB team
- Team made recommendations and plans to provide further guidance
- Water samples from the drinking water storage tank
 - Arsenic existed at Maximum Contaminant Level
 - Nitrates exceeded MCL
 - Results similar to 2006 analyses; team plans to investigate further



Findings of Trip (continued)

- Improvements to water distribution system underway when team arrived Esmeralda
- Team provided oversight and guidance; held discussions with engineer
- Improvements address immediate community need; not clear how much and where water is being used
 - Community still reporting throughput of 70 m³ of water daily (same as 6 years ago), yet electricity is double



Findings of Trip (continued)

- Discussed financial situation with community treasurer and previous community president – 1) why community was unable to pay for pump or water supply system repairs and 2) to recommend improvements to collection process or funding arrangement
- Treasurer considering team's suggestions for sustainable funding arrangement.
- Treasurer plans to discuss monetary situation at community-wide meeting and ask each community member to sign funding agreement



Potential Projects – Esmeralda II

1. Water connections for 4 houses that had tapped into original water supply system without engineering expertise (accomplished in February with Rotary funds)
2. Drainage
 - Drainage study
 - Surface drainage between Esmeralda I and II (culvert)
 - Amazon Ave. drainage at the end of the street
 - Drainage swales at Calle El Olympo
 - Drainage swales and inlets at Calle Aconcagua

Potential Projects – Esmeralda II

3. Replacement of water distribution piping and isolation valves
4. Evaluation and repair of water tank
5. Alternative power sources for water supply system
6. Concrete stairs / steps to water tank and 4 houses
7. Operation & Maintenance Manual; Water Conservation Methods

Potential Projects – Neighboring Communities

- Menjivar - drilled well, storage tank, and water distribution system
- Esmeralda I - alternative power sources for the water supply system
- CESTA, Dr. Ricardo Navarro - potential partnering on solar-powered food driers; standards for bicycle lanes

Accomplishments

- 5 hp pump more appropriate for community's current population
- Re-established proper distribution / chlorination schedule
- Alerted community that water consumption is real issue
- Assisted community in identifying and prioritizing potential projects
- Helped leaders consider options to better obtain water fees
- Assisted neighboring communities with identifying needs

Photos from Trip



Calle El Olympo: possible drainage project



Calle Aconcagua: possible drainage project



Questions?

**Questions / Comments / Observations
are welcome.**



Poverty Traps

- Poverty Traps edited by Bowles, Durlauf, and Hoff



Popular belief: poor have power to escape

This belief is debatable, may depend on starting point

Economic ecosystem have tipping points

Development may have good or bad effects

Examples: institutions, parasites, kin systems

Another dimension to consider in our programs





Miscellany

- ❑ New website development continues
- ❑ New newsletter approach implemented
- ❑ Manned up and submitted a volunteer hours grant to COP
- ❑ Revised 501 submitted for Ethiopia
- ❑ Submitted self nomination for Premier chapter
- ❑ Brian Davis volunteered for Historian role
- ❑ Working with UH on project funding issue
- ❑ Working with regional conference committee





Miscellany



- ❑ West University Rotary donated \$1000 to Raingarden project

- ❑ Jose cleaned up an old “off books” account

- ❑ Looking to fill some special assignments
 - ❖ 5 sub-team leads on Raingarden Project
 - ❖ Apple Polisher / Image Consultant
 - ❖ Philippines and Central / South America PIT champions





Coming Events

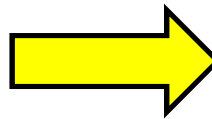
August 5 (Mon)	Board Meeting (face to face)
August 14 (Wed)	Social in lieu of August chapter meeting
September 2 (Mon)	Board Meeting (conference call)
September 11 (Wed)	September chapter meeting – “Regrounding”
October 9 (Wed)	October chapter meeting – “Student Night”
November 13 (Wed)	November chapter meeting – “Looking Ahead”
December 11 (Wed)	December chapter meeting – “Reflect & Celebrate”
November 15 – 17	Regional meeting in Galveston
	Adey Adeba celebratory kickoff (TBD)
	Annual Fall fundraiser (TBD)





Breakout Sessions

- New Members
- El Salvador, Fundraising
- Incubators: Ethiopia, South Africa
- Other teams





Our Vision

Our vision is a world in which the communities we serve have the capacity to sustainably meet their basic human needs, and that our members have enriched global perspectives through the innovative professional educational opportunities that the EWB-USA program provides.

Our Mission

EWB-USA supports community-driven development programs worldwide by collaborating with local partners to design and implement sustainable engineering projects, while creating transformative experiences and responsible leaders.

