

# What Difference Have We Made?

## Evaluating the Impact of EWB- USA Projects in Nicaragua

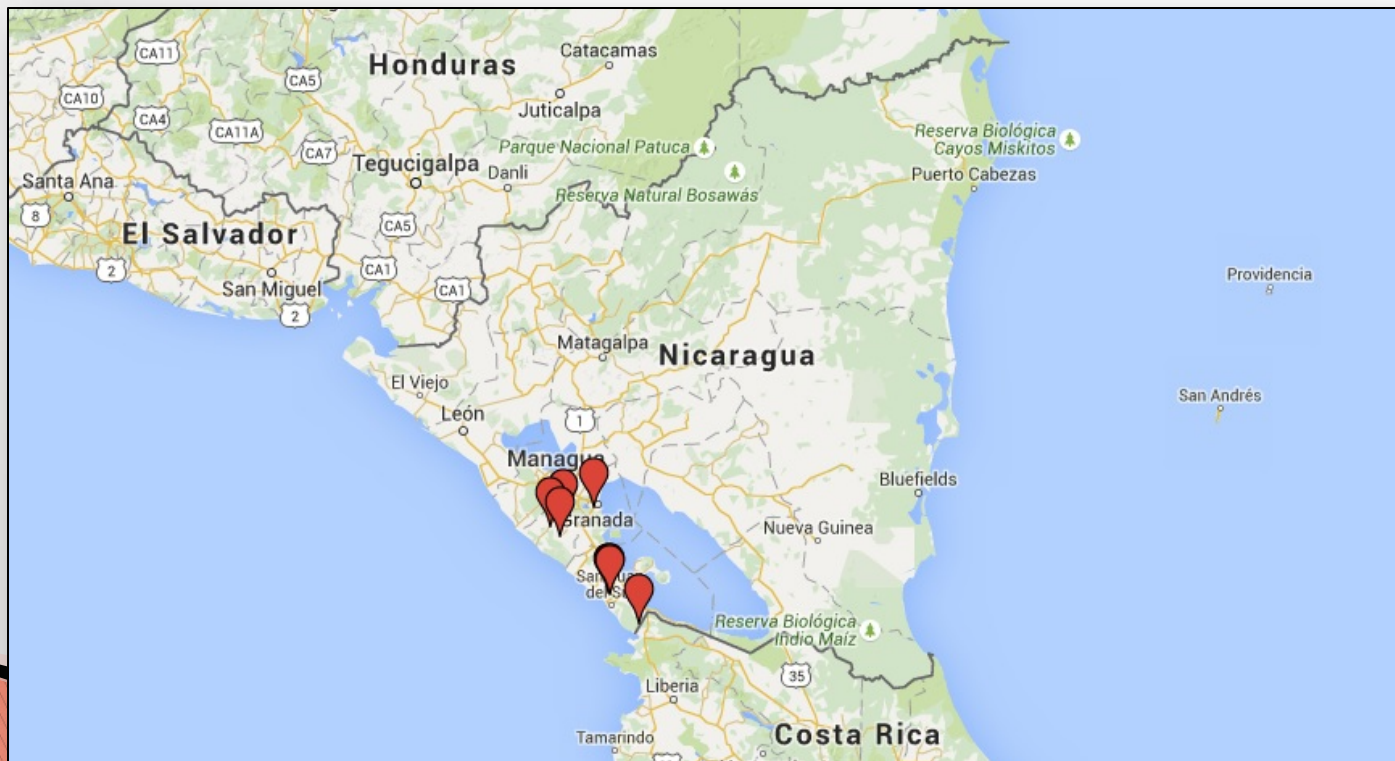
Claire Barker, EWB-USA Boston Professional  
Chapter

NEWEA Annual Conference, January 25, 2016



# EWB-USA's First Closeout Impact Review, September 2015

## Eight Programs and Fourteen Completed Projects in Southwest Nicaragua





# Civil Works





# Structures







# Water Supply





# Sanitation





# Energy and Agriculture



# Staffing – Four Volunteers

# Three EWB– USA Staff





# Methodology



# Why do Impact Reviews?

- ▶ Learning:
  - *Are programs effective?*
  - *How can they be improved?*
  - *Do results support the EWB–USA Theory of Change?*
- ▶ Accountability to Stakeholders:
  - *Communities*
  - *Chapters*
  - *Donors*





# EWB-USA Context

- ▶ Vision of Success: Improved quality of life by accessing, using and maintaining relevant technologies
- ▶ Relevant Technologies:
  - Engineering based, proven technologies
  - 5-year community partnerships
  - Infrastructure that a community can sustain
- ▶ Education a key success factor



# CHANGE PATHWAY





# Monitoring: Were Activities in the Program Plan Completed?





# Evaluation: Were Overall Plan Objectives Met?





# Impact: What Difference did the Project Make?



ENGINEERS  
WITHOUT  
BORDERS  
USA



# Impact Area #1: Were Projects Appropriate and Relevant?

## Community was able to

- Use local materials
- Operate and maintain the project
- Sustain it financially and technically
- Provide access to all members of the community



# Impact Area #2: What Changed in the Community?

- Public or Environmental Health
- Behavior
- Access to Services by all Community Members
- Technical Knowledge
- Community Organization
- Community Self-Advocacy

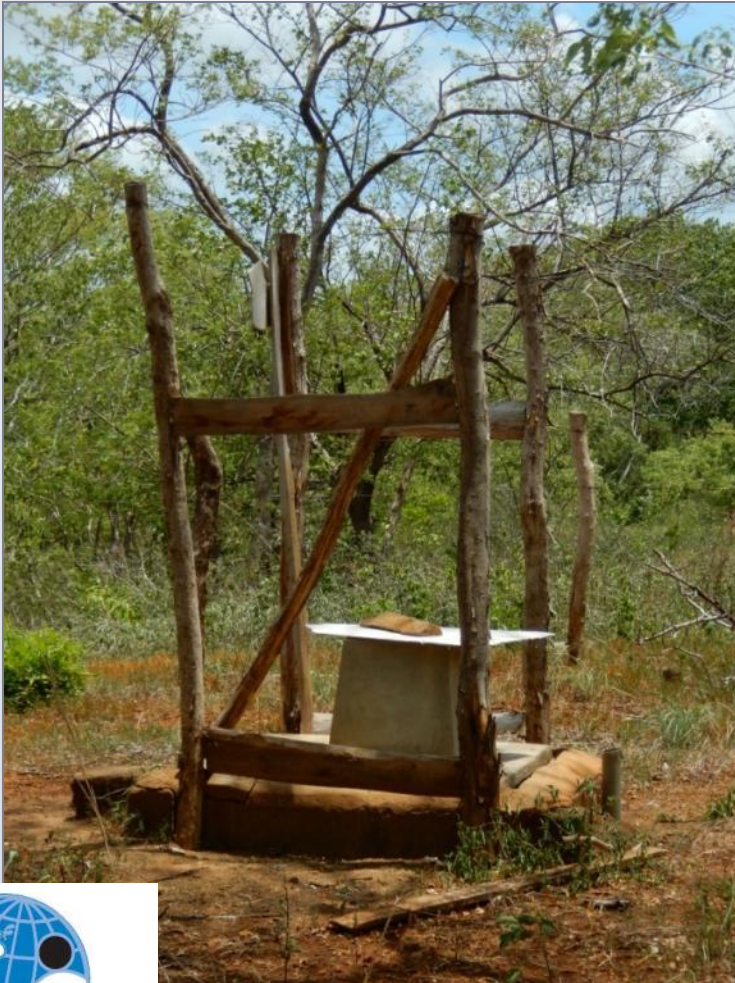


# Civil Works Projects: High Impact





# Success even for Technical Failures



# Success even for Projects no Longer Operating



# Local Challenges

- ▶ **Financial and Operating Sustainability:**
  - Few maintenance or replacement reserves
  - Reliance on skills of one person
  - Some maintenance requirements beyond individual capacity or willingness
- ▶ **Technical Knowledge:**
  - Few appropriate O&M manuals
  - Storing and passing on information is difficult





# Impact Reviews: Expect the Unexpected

- Drought:
  - Wells have dried up
  - Communities lack funds to drill a deeper well
  - Storage tank in rainwater catchment repurposed to hold municipal water brought in tank trucks
- Grid electricity leapfrogged community solar systems



# Expect the Unexpected: Solar Systems in Neighboring Communities



System Protected



Repeated Theft of Parts



# Expect Ambiguity: Why did Hay Bale Construction Fail?



# Expect Ambiguity: Measuring Project Impact on Public Health





# Success Factor #4: Quality of Service

- ▶ Understanding of the community's long term goals
- ▶ Appropriate technologies, design and implementation
- ▶ Solid project documentation



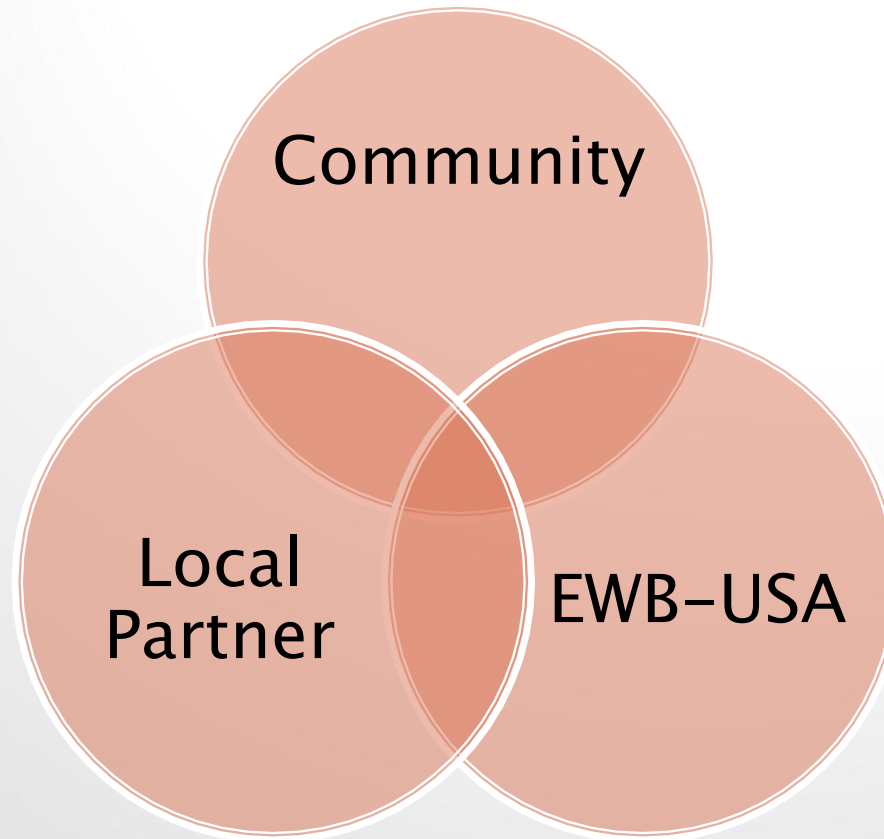
# Success Factor #3: Maintenance Planning

- ▶ Chapters need to provide education and training throughout a project
- ▶ Usable written documentation and manuals are critical
- ▶ Chain of control of documents is hard to maintain over time





# Success Factor #2: Collaborative, Long-Term Partnerships



# Success Factor #1: Community Capacity to

- ▶ Create financing mechanisms
- ▶ Assign roles and responsibilities
- ▶ Organize for long term effort
- ▶ Take ownership of the project and make decisions once the project has been closed



# Takeaway Thoughts

- ▶ Technology is less important to success than community capacity and long-term collaboration
- ▶ Planning, monitoring, evaluation and learning – EWB–USA’s PMEL process – is critical
- ▶ *“The only true failure is a failure to learn”*

*Bruce Nieman, Community Impact Review Team Member*





# Credits

## ▶ Report:

<http://www.ewb-usa.org/leaders-in-learning-inaugural-closeout-impact-review-team/>

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- \* Photographs Used