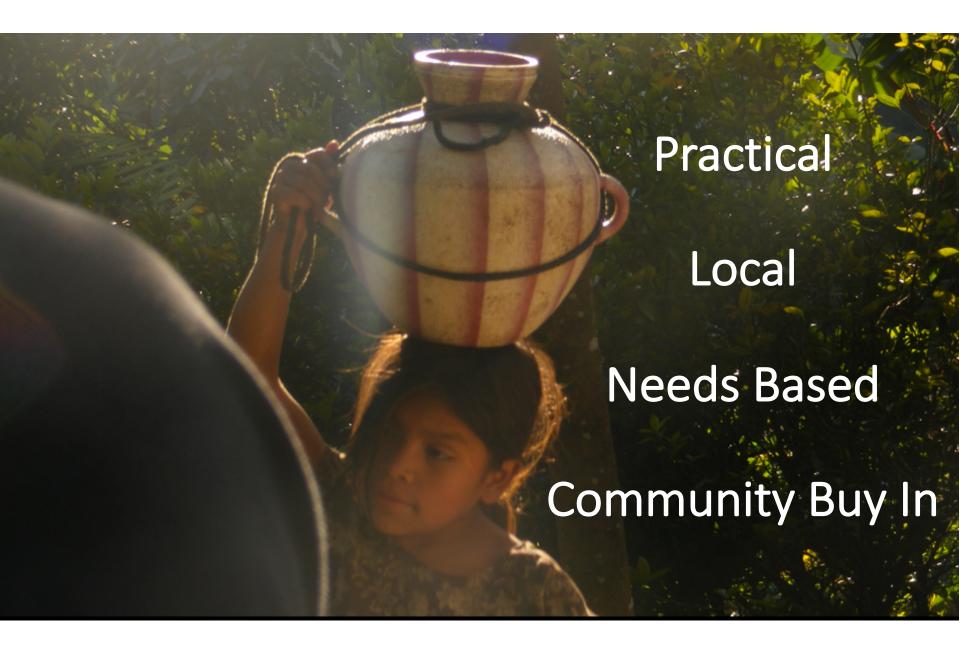


#### Rainfall Into Water Security:

Students Partnering with a Rural Guatemalan Community to Achieve Water Security

Evelyn Grainger, Civil Engineering & International Studies (WPI, 2018)

Kerry Muenchow, Chemical Engineering (WPI, 2019)











#### Determining Water Storage

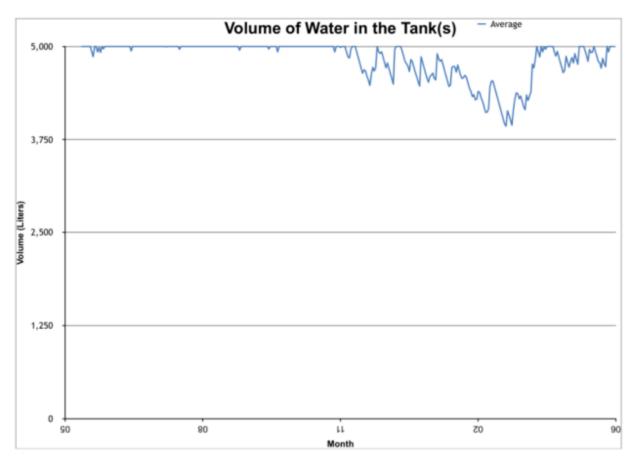


Figure 35: Graph for 7 people sharing 5000 L from 98 m<sup>2</sup> roof





#### Community Collaboration

























### Community Design Input

**Gutter Clip Design** 









#### **Community Design Input**

Separation of Tanks





#### Social Awareness

Working within Cultural Boundaries









#### Design-Build Model





# **Unintended Changes**

**Community Relationships** 

**Self-Perceptions** 





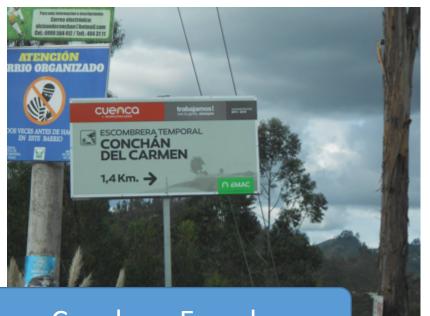




Change in Community Advocacy



## The Road to Water Security



Conchan, Ecuador







### Questions?



