

# **Sanitation Systems**

## **EWB-BU**

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# **Project Summary:**

The health clinic site has a latrine system, but the surrounding communities have received less attention from NGOs and so they have a less developed sanitation system. At the maternal health clinic site in the summer of 2012, latrines were installed. However, during EWB-BU's trip in the summer of 2013, the latrines had collapsed due to poor construction and maintenance. The 2015 travel team assessed the need for improved hygiene and sanitation within the community and the surrounding zones. The team discovered that there were several working latrines so there are people in community with the construction knowledge, however they missing key components of the design. According to the community, the latrines at the market near the clinic collapse approximately every six months, so the market committee is looking to build a good latrine for all of the markets.

# **Project Goals:**

- 1.) Comparative analysis (based on following metrics) and building knowledge base with the team members
  - a.) Complexity of device
  - b.) Ease of construction
  - c.) Material Availability

- d.) Cost for community
- e.) Cost for EWB-BU
- f.) Sustainability
- g.) Community acceptance
- h.) Performance (research) might come after prototyping
- 2.) Education initiative
  - a.) manual on how to best conduct maintenance and cleanliness of existing latrines
  - b.) expand use of tippy-tap washing stations
  - c.) improve design of existing latrines (i.e. transform existing latrines to VIP)
  - d.) Test our education "workshops" on students at BU
- 3.) Build Latrine in Naluja
  - a.) Where should it be built?
  - b.) Skilled Laborers will build; we will advise and pay for materials
  - c.) Prototyping and modeling will help give modification suggestions for optimization of latrines
- 4.) Organize an Education Event
  - a.) Community wide
    - b.) Planned with the community in the spring (with the help of SSAAP)
- c.) centered around the newly built latrine complete with hand washing stations for demonstrations?

#### Metrics

- 1.) Cost
  - a.) Direct cost to EWB-BU
  - b.) Community contribution
  - c.) Cost of maintenance
- 2.) Lifespan
  - a.) How long will the structure stand
  - b.) How often/how much upkeep is required
- 3.) System integration
  - a.) How well does it fit into to the overall WASH initiative

#### Prospectus:

Phase 1: Research Phase 2: Design Phase 3: Education Phase (4): Trip prep

### **Project Deliverables:**

Educational materials
-posters, flyers, workshops
Technical manual for VIP latrine
Construction manual for tippy tap
Final latrine design

#### Timeline:

1/31/16 - Have updated project framework complete

3/01/16 - (Tollgate 1) Have technical specs for VIP latrine

3/21/16 - (Tollgate 2) Design for integrated tippy-tap

4/10/16 - Begin internal review process

4/25/16 - All materials submitted

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- latrine technical team drawings
- soap (maintenance & sustainability)
  - o what's at stake
- design of handwashing system
- laminated posters (specialize for location)
- work with established institutions
- communication\*\*
- budget
  - o \$2500
- education material
  - market
    - food
  - school
  - o clinic
  - o church