

# HydrAid<sup>®</sup> Biosand Water Filter Project Planning



**BioSand Water Filter**  
Manufactured by Cascade Engineering

# Planning Your Project



- Project cycle
- What success looks like
- Situation analysis and assessment
  - Staff Planning: how many, what kind of people, what cost
  - Assess Sustainability
  - Monitoring Plan
  - Evaluation Plan
  - Timeline/Schedule
  - Budget

# Project Cycle



- Project identification
- Feasibility and project design
- Project appraisal and negotiations
- Project planning
- Project implementation
- Monitoring and review
- Project evaluation

# What Success Looks Like



- Insuring healthy, uncontaminated water is a holistic process
- involving a multi-barrier approach
  - Source protection from contamination - fecal matter
  - Sedimentation
  - Filtration
    - Microbiological, chemical and physical characteristics that meet WHO or national standards
  - Disinfection
  - Safe Storage
- Correctly and consistently used over time
- The entire process is essential



# Social Sustainability



## Factors that influence social sustainability

- Social - Need felt within a community and its social acceptability
- Cultural - Relates to the customs and belief system
- Health - Impact of improved water
- Gender - Role of men and women within the household and community
- Community participation - Meaningful involvement
- User ability to tell if technology is functioning properly

# Technical Sustainability

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## Factors that influence technical sustainability

- Quality and quantity of improved water over the expected life of the product
  - Lab studies
  - Field studies
  - Health impact studies
- Design - Appropriateness, simplicity, robustness, reliability
- Quality of construction
- Use of local materials and labor
- Maintenance requirements
- Training/knowledge of the user
- Provision for training, adapted for local users
- User access to support
- User ability to tell if technology is functioning properly



# Environmental Sustainability



Factors that influence environmental sustainability

- Protection of source water
- Conservation of water
- Safe disposal of feces
- Safe disposal of wastewater
- Appropriate solid waste management
- Hygiene and sanitation education
- Monitoring and assessment



# Situation Analysis



## Water assessment

- Biological
- Chemical
- Physical
- Are water tests necessary or available?

## Hygiene assessment

- Hand washing
- Waste disposal
- Washing
- Cleaning
- Covering food

# Situation Analysis Continued



## Sanitation assessment

- Improved sanitation
  - Flush or pour flush to piped sewer, septic tank or pit latrine
  - Family latrine
  - Pit latrine with slab
  - Composting toilet
- Unimproved sanitation technologies
  - Public or shared latrine
  - Open pit or pit latrine
  - Hanging toilet or latrine
  - Bucket latrine
  - No facilities at all

# Situation Analysis Continued



## Needs analysis

- How far is water?
- How many people in the community?
- What technology has worked or not worked in the past and why?
- What is the skill level of target families relative to operation and maintenance of a filter?
- What support and educational programs exist or are necessary to support adoption and reinforcement of the new technology?

# Deep Listening



- Identify key influencers with whom to build awareness and identify community needs
- Community participation
  - Builds self esteem and empowerment
  - Builds sense of responsibility and ownership of both the problem and the solution
- Success of your project depends on hearing what the community wants, rather than what you want to do for the community
  - Convenience?
  - Health improvement?
  - Social status?
  - Time?
  - Money savings?
- Listen more than you talk

# Define The Project



- Based on what you learned in the analysis and assessment
- Determine the best technology intervention
  - Effectiveness
  - Appropriateness
  - Acceptability
  - Cost
- Determine the activities
  - Filter logistics
  - Staffing requirements
  - Awareness and education campaign or process
  - Installation process and calendar
  - Assessment and monitoring your project

# Check for Partners

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Check for local organizations that may contribute to your project before, during or after.

- Community health promoters, i.e. Rotary, WASH, USAID
- Existing health care workers
- Local entrepreneurs
- Government health programs

# Determine The Costs

- Analysis and Assessment
- Initial purchase
- Transportation
- Installation
- Cost to raise awareness in community
- Cost to educate people how to use the filter
- Cost to provide on-going support for households

# Project Checklist



- Project identification
- Feasibility and project design
- Project appraisal and negotiations
- Project planning
- Project implementation
- Monitoring and review
- Project evaluation