



Addressing the paradox through small doable actions to improve domestic water management: high water and sanitation access and high diarrheal morbidity in Southwest Bangladesh

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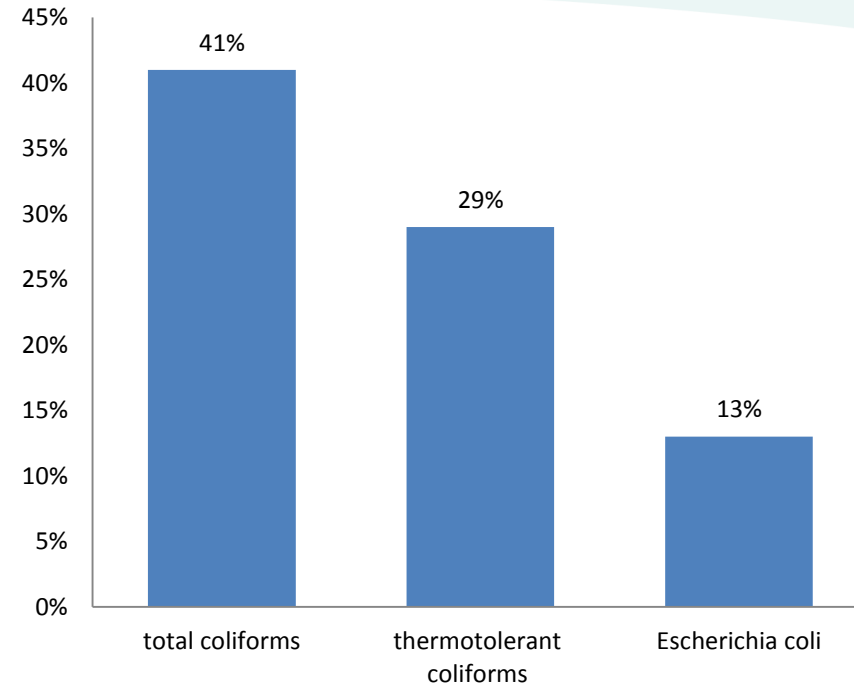
Where is the gap?

- Bangladesh has achieved a laudable success in providing access to water and sanitation over the last two decades.
- Open defecation has reduced from 34% in 1990 to 3% in 2012
- None - 0% - of the population drink surface water and more than 85% have access to safe drinking water
- However, despite this success, about 1000 children under five years die annually from diarrhea
- Mortality rates underestimate the magnitude of the problem because of high rates of ORS use, diarrhea morbidity 5% in previous 2 weeks (DHS, 2011)




Both 'nature' and people working against water quality

- Tubewells in flood prone areas are highly contaminated by coliform bacterial



- Pump body can act as persistent reservoir for microbial indicator bacteria².
- Tubewell water contaminated by nearby pit latrines³.
- Common practice of breaking the rings to release fecal sludge and maximize the lifespan of latrine.

Applying comprehensive behaviour change approaches to address monumental challenges in Southwest Bangladesh

- WASHplus/Bangladesh main objective is to improve WASH coverage and practice in 4 *upazillas* or sub-districts in SW Bangladesh, reaching about ¼ million marginalized people
 - Build community and local government capacity to operate and maintain facilities, demand increase allocation of funds to ensure sustainability
 - Strengthen Programming Guidance and Evidence for WASH Nutrition Integration
-  **WaterAid** main implementing partner with 4 local NGOs
- 3 years activity 2012- 2015

Formative / Baseline Survey to Understand HH Water Practices

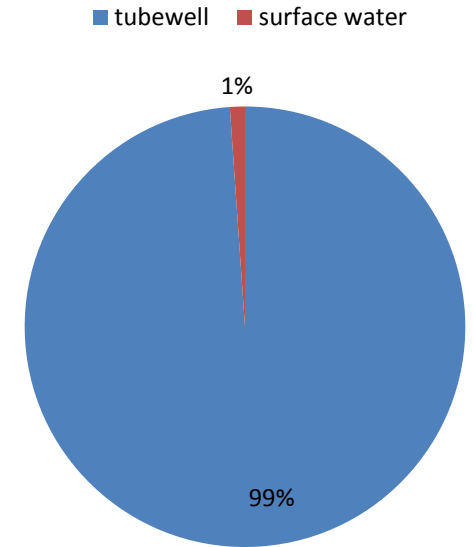
Water Source and Use

- Almost everyone collects water from tubewells
- However food preparation and cleaning 81% choose to use surface water (not due to lack of quantity)

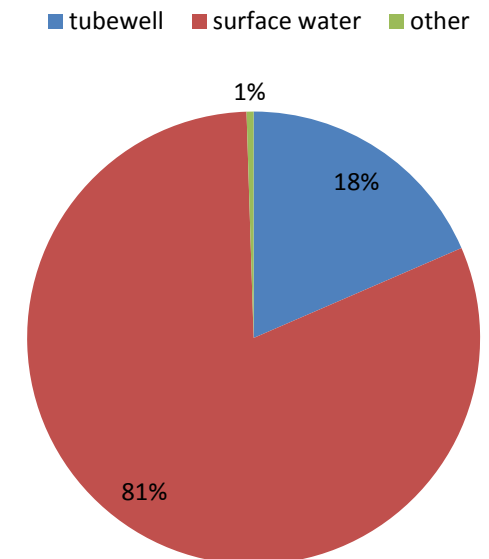
Water Transport and Storage

- 20% of the respondent use coconut shell to cover the water container
- About 14% do not use covering consistently while carrying water from the source
- Observation of water pouring behavior found that about 14% dipped finger while serving
- 23% reported storing water on the floor level

Sources of drinking water



Water for cooking & cleaning utensils



Formative / Baseline Survey to Understand HH sanitation and hand washing practices

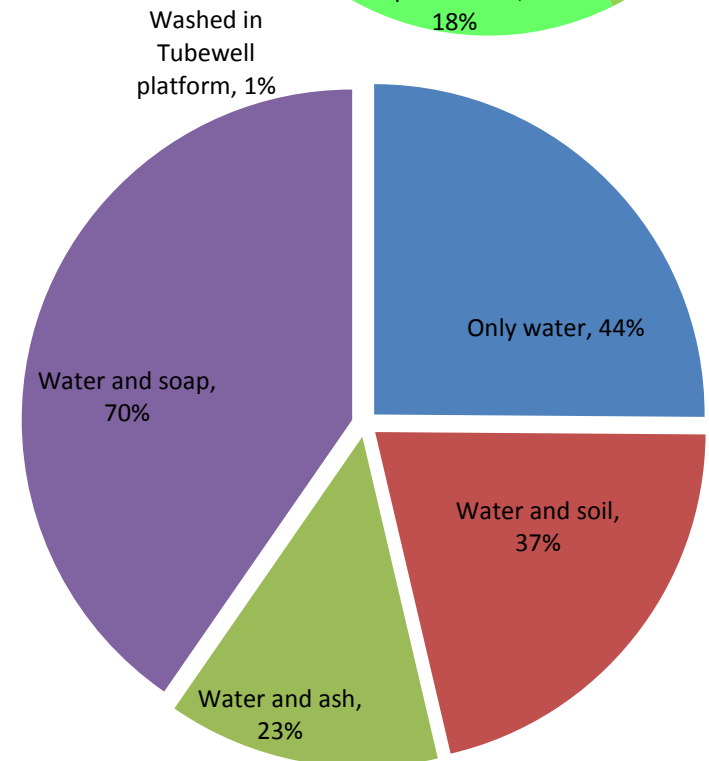
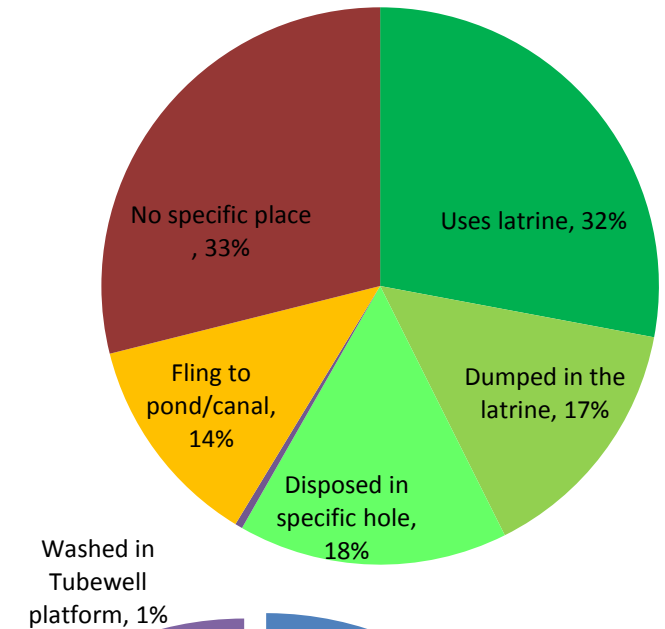
Sanitation

- Presence of improved or unimproved latrine was ubiquitous. However,
- 10% of the latrines are directly connected with nearby canals and ponds.
- 35% of the latrines inundate during flood and high tide.

Child feces was not disposed of safely and infrequently deposited in the latrine.

Hand washing

- One third HH had some sort of hand washing “device” near the latrine and kitchen.



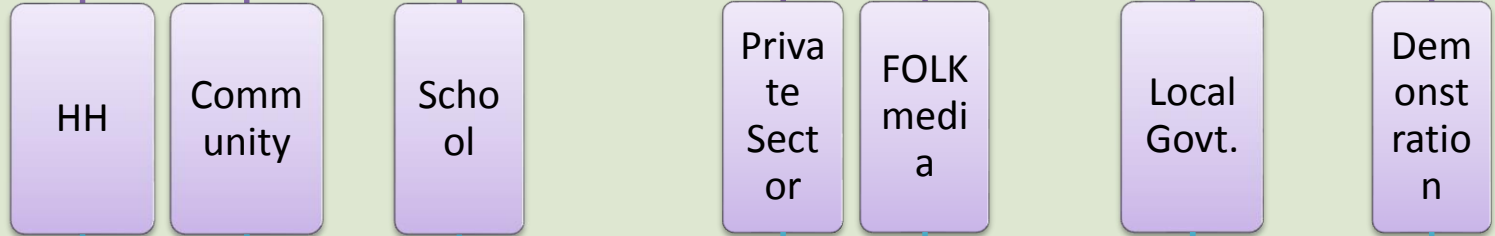
WASHplus Approach

Activities for household water management

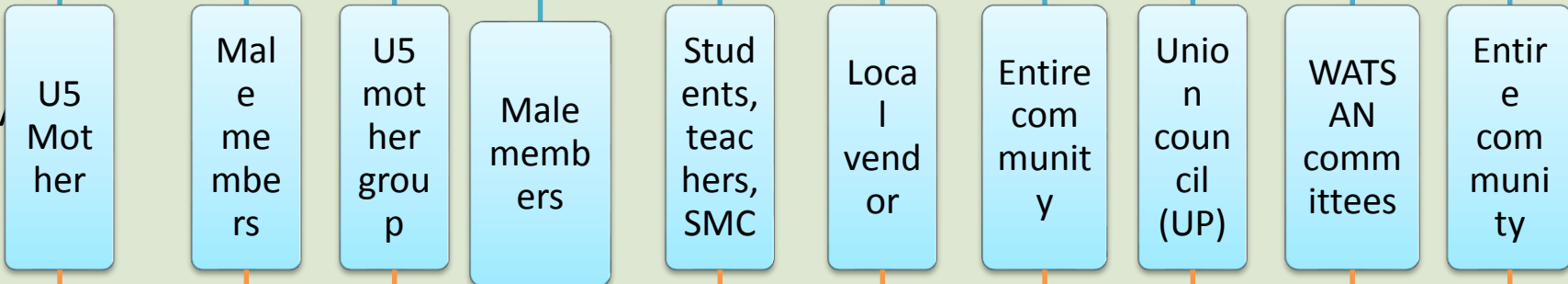
- Analyze current behavior and identify risky practices
- Apply behavior science theories to design intervention modality
- Develop/modify strategy, guidelines and tools for communicating with different target audiences
- Identify continuum of small doable actions for improved WASH practice
- Provide necessary training for local partners
- Intervene following the multi-level approach that includes: focused sessions with segmented audiences addressing key determinants, individual negotiation, intervention at school and building capacity of community based organizations to facilitate change at HH, community and local government levels.

A multi-level approach to changing WASH Behaviors

Levels/
mode of intervention

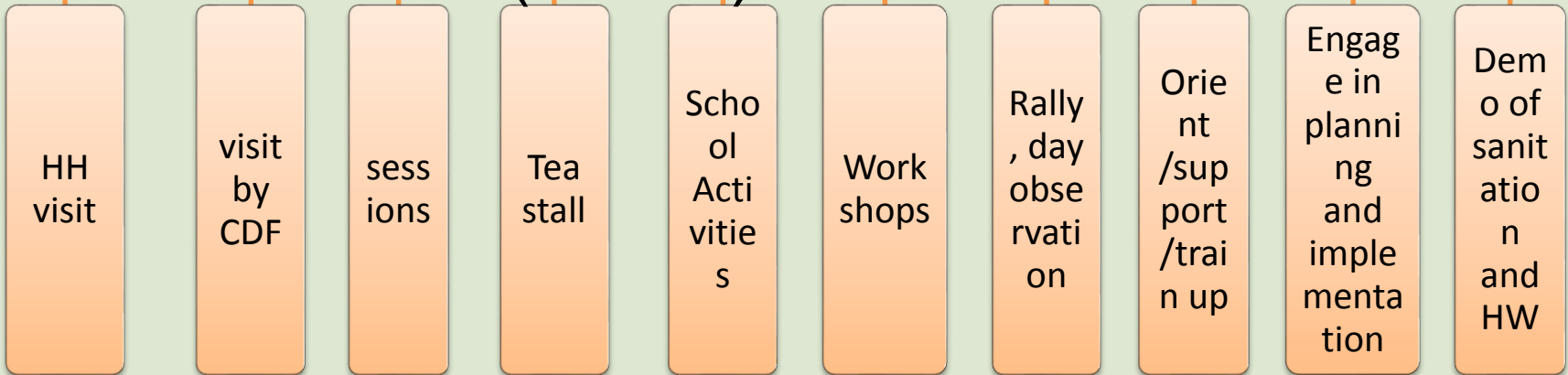


Target Segment,
Audience

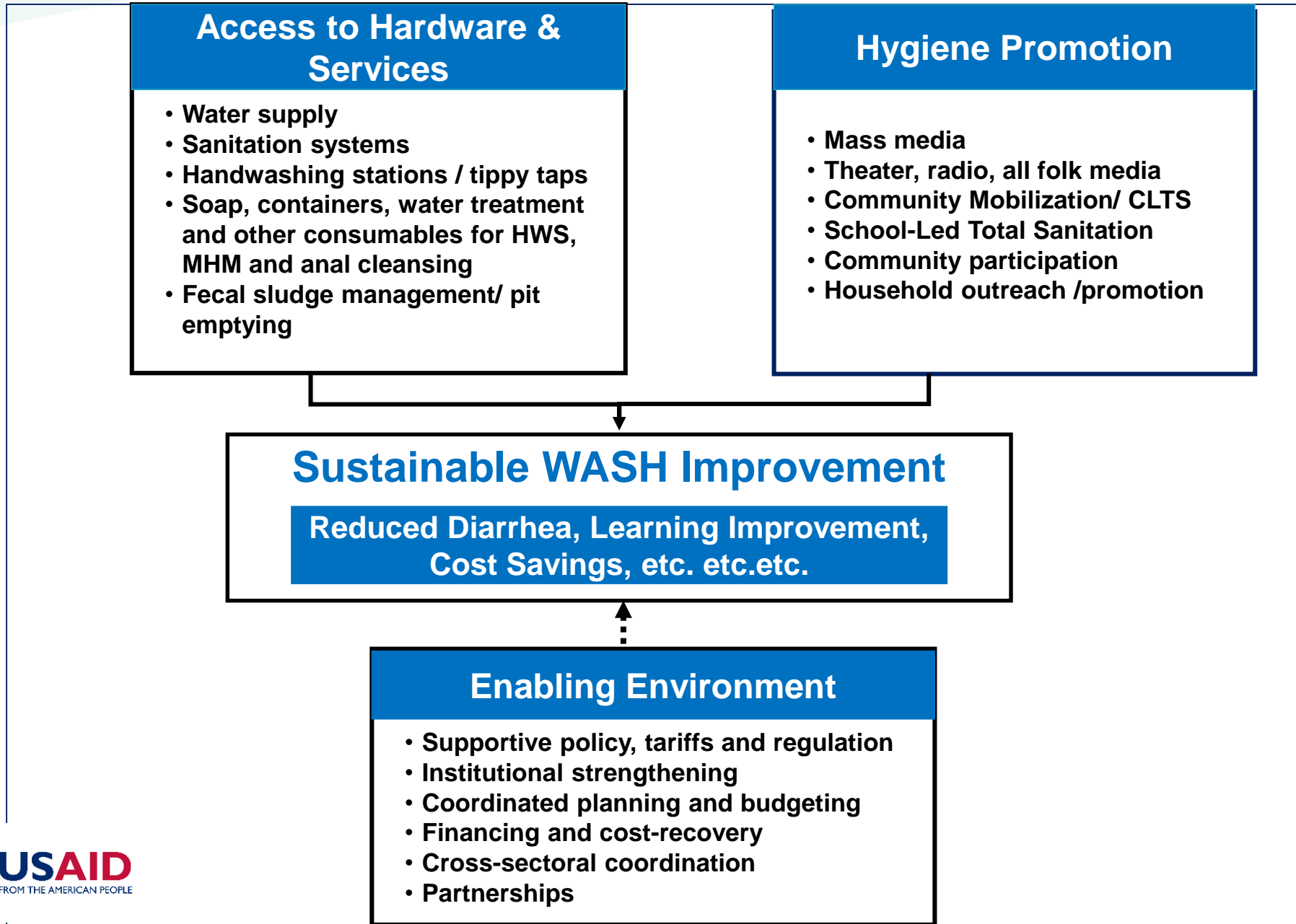


<<Behaviors (SDAs)/ Determinants >>

Activities



WASH Improvement Framework



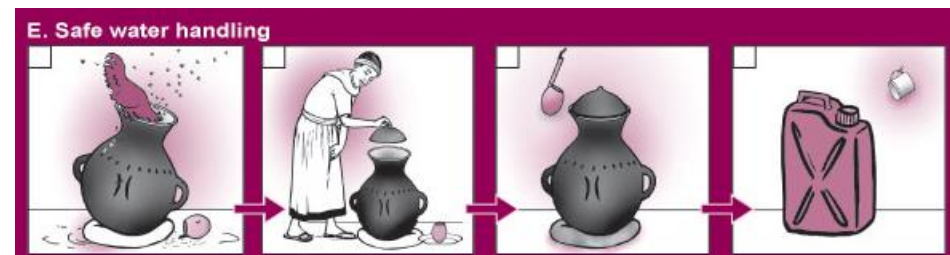
WASHplus Approach

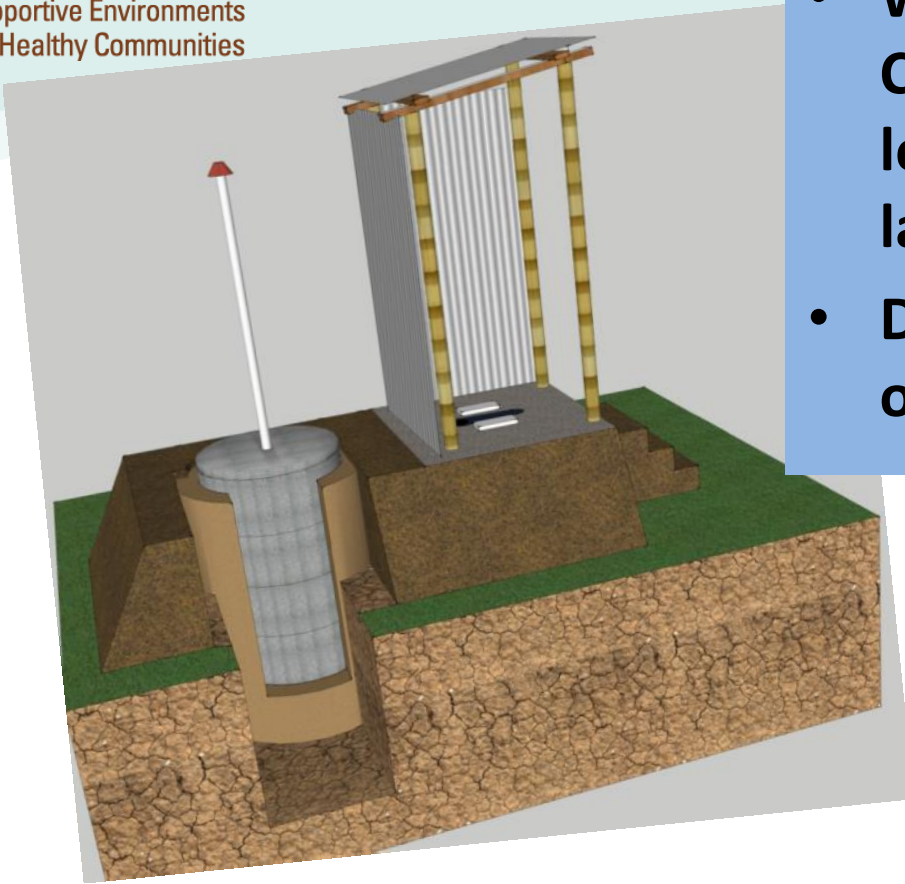
Activities to Improve Water Quality at Source

- Installing appropriate safe water sources
- Repairing the existing nonfunctional water sources
- Enhancing local capacity to maintain water sources by training and providing tools
- Strengthening/forming community-based forums to ensure the longevity of the water facilities
- Advocating with local government to increase allocation for safe water and sanitation
- Assisting formation of communal repair maintenance fund for water facilities

“Small Doable Actions” for HH Water Management

- Pumping water for a while prior collecting in the container to remove contaminated water from the pump head (water could be contaminated by touching the spout with dirty hands, children playing at the tubewell platform etc.)
- Cleaning the container properly before collecting water (no dirty rags for cleaning)
- Avoid using hand or finger to spill out excess water from the container
- Cover the container while transporting
- Use cover larger than the opening of the container to make sure the entire spout is covered (avoid using coconut shell).
- Store container in a higher place and make sure children have easy access to the container
- Do not dip the mug in the container, pour from it.
- Make sure, the finger is not touching the water while collecting, serving and drinking
- Use tubewell water for cleaning utensils and vegetables that will be consumed without boiling
- Use tubewell water while preparing child food which is not boiled
- Stop using water from ponds and canals that is connected with latrines.

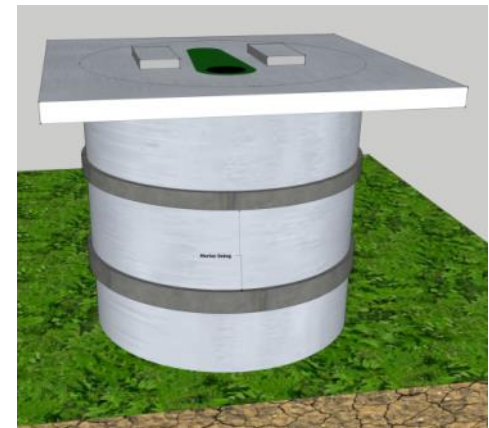
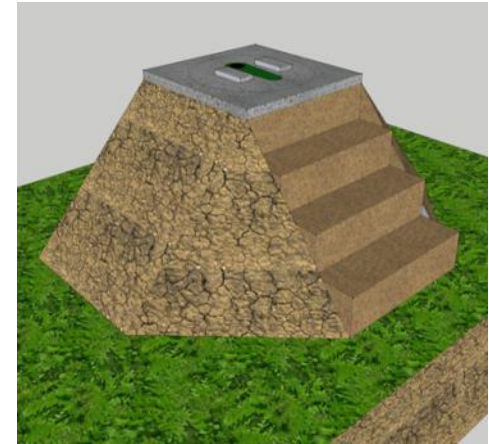




- WASHplus NGO partners work with Community Development Forums, locally formed committees, to facilitate latrine upgrades.
- Developed a catalog of sanitation options with pricing and time required...

Illustrative Text from catalog... listing price, level of effort, DIY or contract ..

- রিং এর চারপাশ মাটি দিয়ে ঢিবির মত উঁচু করে দেয়া
- রিং এর চারপাশ মাটি দিয়ে সিঁড়ির মত ধাপ ধাপ করে দেয়া



Conclusions

Addressing **household water quality** requires a comprehensive approach that addresses

- Challenging sanitation situation in a tidal, flood-prone region
- Traditional practices and preferences that veer towards surface water and other ‘non-preferable’ sources even when easy access to deep tubewell water
- Builds local government capacity to monitor source quality, manage repair and maintenance (thru WASH funds)

Thank you!

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Flexible, creative but theory-based behavior change strategy to address WASH challenges...

- Seeing improvement, latrine repairs/ new latrines
- Endline data are not yet in...scheduled for March 2015

Hardware installation status (March 2013 – August 2014)		
Water points	Constructed (New)	368
	Re-constructed (Old)	4
HH latrine	CLTS (New)	8360
	Subsidized for the poorest (New)	1154
	Improved (CLTS)	11526