

## ***Comparison of Sanitation Case Studies in Malawi and Indonesia***

### ***Overview***

In this report I compare two case studies of latrine deployment in Malawi and Indonesia. Several common threads were of great importance in both projects:

- + addressing economic needs of users and attracting first-adopters
- + using informed decisions by end-users rather than presupposed ones by foreigners
- + understanding gender roles and community dynamics
- + sustainability relies on economic needs of users and availability of materials and services

Both projects involved building latrines in small villages which had significant minorities without latrines (26% in Wotawati Hamlet, Indonesia). The Malawi project focused on eco-sanitation, which involves relocating latrines and using old ones as fertilizer to spread on crops. In Malawi the importance of economic initiative to the end-users must be emphasized. While WaterAid was motivated by improving the health and hygiene of the Malawi people, the villagers were primarily interested in the advantages that eco-sanitation meant for their crops and spread of the project was helped mainly by word-of-mouth as people experienced crop yield increases from the new fertilizer.

The Indonesian study showed more evidence of the latrine as a way for the community to improve itself. Previously, people defecated around the village causing odors, disease, rashes from not washing and fear of defecating at night and being bitten by snakes and scorpions. In Wotawati as well as Malawi, motivation came from the women who wanted to improve the health and safety of their families. In Malawi, the male's primary interest was increasing crop yields—a person produces about 500 litres of urine per year which contains similar levels of nitrogen, phosphorous and potassium as commercial fertilizers.

### ***Application to EIME-105***

A handful of themes contributed to the success of each project, independent of region:

- + Create value (economic or otherwise). Preferably, convert something wasteful into something valuable.
- + First-adopters are essential. They will try a new idea that may be different and unproven.
- + Get working examples in the field ASAP—Ideas spread by word-of-mouth after people see a working example
- + An idea must not seem foreign and ideally it improves upon an existing process/product rather than introducing something unfamiliar
- + Use a project to address one or more local problems (eco-sanitation addressed hygiene, but also soil fertility which had decreased 40% in 10 years)

### ***Personal Thoughts***

I was particularly interested in how much emphasis was placed on weaning the projects off subsidies. Economic mechanisms were put in place to gradually increase costs of materials as demand increased (higher demand would offset increased material costs for masons selling the slabs). In addition, the importance of the user paying for the latrine was emphasized because they would value it more if they paid for it than if it was given away. In the Indonesian project, the elimination of a major health problem—human feces around the village—allowed villagers to focus

on lesser nuisances, like eliminating feces of wild dogs. It is a good example of how small developments can allow communities to tend to items higher in Maslow's Hierarchy.

### ***Related Readings***

1. Participatory Monitoring of Sanitation: The Case of Wotawati Hamlet, Pucung—Indonesia IRC International Water and Sanitation Centre. <http://www.its.caltech.edu/~e105/readings/cases/latrine-indonesia.pdf>
2. One Step Closer to Sustainable Sanitation: The Experiences of an Eco-Sanitation Project in Malawi. WaterAid. [http://www.its.caltech.edu/~e105/readings/cases/eco\\_sanitation-Malawi.pdf](http://www.its.caltech.edu/~e105/readings/cases/eco_sanitation-Malawi.pdf)
3. Lessons Learned from NGO Experiences in the Water and Sanitation Sector Water and Environmental Health at London and Loughborough (esp Ch 3). <http://www.its.caltech.edu/~e105/readings/cases/WELL-lessons.pdf>
4. <http://www.fastcompany.com/social/2008>