Achieving and Sustaining Open Defecation Free Communities: Learning from East Java

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Today, 2.6 billion people live without access to improved sanitation. Of these, 75 percent live in rural communities. To address this challenge, WSP is working with governments and local private sectors to build capacity and strengthen performance monitoring, policy, financing, and other components needed to develop and institutionalize large scale, sustainable rural sanitation programs. With a focus on building a rigorous evidence base to support replication, WSP combines Community-Led Total Sanitation, behavior change communication, and sanitation marketing to generate sanitation demand and strengthen the supply of sanitation products and services, leading to improved health for people in rural areas. For more information, please visit www.wsp.org/scalingupsanitation.

This research report is one in a series of knowledge products designed to showcase project findings, assessments, and lessons learned through WSP's Scaling Up Rural Sanitation initiatives. This paper is conceived as a work in progress to encourage the exchange of ideas about development issues. For more information please email Djoko Wartono at wsp@worldbank.org or visit www.wsp.org.

WSP is a multi-donor partnership created in 1978 and administered by the World Bank to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP's donors include Australia, Austria, Canada, Denmark, Finland, France, the Bill & Melinda Gates Foundation, Ireland, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank.

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Abbreviations and Acronyms

BCC	Behavior Change Communication
Bidan Desa	Trained midwife, often resident in village
BPS	Badan Pusat Statistik (Central Board of Statistics)
Bupati	Regent, or district administrative head
Camat	Sub-district administrative head
CLTS	Community-Led Total Sanitation
Depkes or MOH	Health Ministry
Desa	Village
Dusun	Sub-village or hamlet
HH(s)	Household(s)
HWWS	Handwashing with Soap
IE	Impact Evaluation
JMP	Joint Monitoring Program
Kabupaten	District
Kecamatan	Sub-disrict
Kepala Desa/Kades	Village Chief
Kepala Dusun/adus	Hamlet Chief
MOHA	Ministry of Home Affairs
OD	Open Defecation
ODF	Open Defecation Free
OSS	One Stop Shop model of service delivery
PKK	Pembinaan Kesejahteraan Keluarga (Family Welfare Movement in Indonesia, implemented by women volunteers from community to national levels)
Puskesmas	Community Health Center
Sanitarian	Puskesmas staff, responsible for environmental sanitation activities

SToPS	Sanitasi Total dan Pemasaran Sanitasi (Indonesian translation of TSSM)
TSSM	Total Sanitation and Sanitation Marketing (initial name of The Scaling Up Rural Sanitation project)
UNICEF	United Nations Children's Fund
VIP	Ventilated Improved Pit
WHO	World Health Organization
WSP	Water and Sanitation Program

Executive Summary

Scaling Up Rural Sanitation, an at-scale rural sanitation initiative, was implemented in East Java province from 2007 to 2010 by the Government of Indonesia with technical assistance from the Water and Sanitation Program. The aim was to learn how to accelerate population access to improved sanitation sustainably, cost-effectively, and at scale.

As a part of the learning strategy, action research was conducted in August and September 2010 in communities that received CLTS[1] triggering through the intervention to better understand the triggering processes and their consequences from the perspective of the people who had experienced them. Objectives of this research study were: a) to identify the principal factors influencing the achievement and sustainability of collective behavior change by communities to become open defecation free (ODF); b) to identify links between influencing factors, in order to help prioritize actions in response by various sector stakeholders; and c) based on the findings, recommend strategies to accelerate the achievement and ensure the sustainability of ODF status by communities.

Twenty of East Java's twenty-nine district governments chose to participate in the research. Eighty communities from twenty districts were selected from the universe of all triggered communities using a randomized approach. As the chart below shows, the communities were grouped into four categories that were expected to represent a range of best to worst case situations in terms of sanitation behavior change achieved. WSP's field team used qualitative and participatory research methods to consult members of the 80 communities.

COMMUNITY GROUPS AND HYPOTHESIS

QUICKLY ODF 20 communities	Self-declared ODF within two months of CLTS triggering, even if verified at a later date.	Communities would represent the best-case scenario, whereby factors influencing collective behavior change positively could best be studied.
LATE ODF 20 communities	Self-declared ODF during 7-12 months of triggering, even if verified at a later date.	Communities would show factors that tend to inhibit collective change and delay ODF outcomes.

[1] Community-Led Total Sanitation—an approach pioneered in Bangladesh by Kamal Kar working with the NGO Village Education Resource Centre (VERC) in 1999–2000.

NOT ODF (High coverage) 20 communities	Failed to become ODF even one year after triggering, but have high sanitation coverage, i.e., over 80 percent of households.	Communities would illustrate situations where change starts but fails to proceed to full ODF achievement.
NOT ODF (Low coverage) 20 communities	Failed to become ODF even one year after triggering, and have low sanitation coverage, i.e., less than 50 percent of households.	Communities would show situations where the collective change process fails to take off.

Key Findings

1. QUICKLY ODF communities represent the most efficient model for scaling up sustainably. Communities that achieved ODF status within two months of triggering achieved markedly faster and higher access gains and remained ODF more often than communities that took many months to achieve ODF status.

Progress monitoring systems and records in 80 communities showed that QUICKLY ODF communities also bested all other categories at behavior monitoring, detecting, and sanctioning violators of community commitment to stop open defecation. The sanitation facilities built for becoming QUICKLY ODF satisfied the requirements of "improved sanitation" by JMP definitions, but were of lower cost and quality than in LATE ODF and NOT ODF communities (as observed in 574 homes in 80 communities).

Ninety-five percent of the QUICKLY ODF communities had sustained their behavior change 4-28 months after ODF declaration, as evidenced from environmental observation, latrine ownership records, reported usage, and observation of maintenance of facilities.

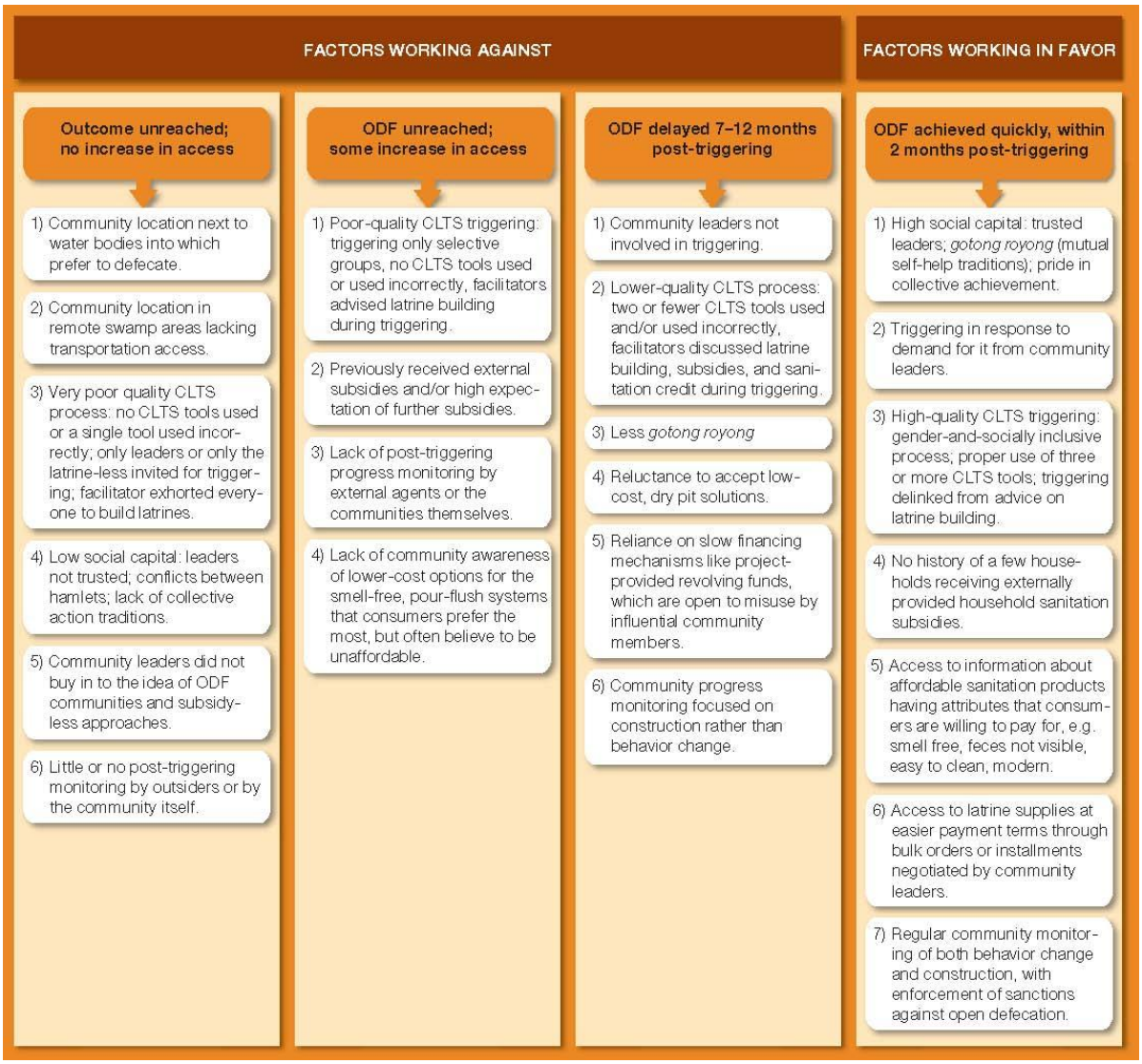
2. ODF outcomes that materialize after many months should be subject to periodic re-checks. Only 80 percent LATE ODF communities reported remaining ODF. Because sanctions against open defecation (particularly defecation into rivers) were rarely enforced, the actual percentage that remains ODF could be even lower. Possibly, 20 percent of the LATE ODF communities had never really achieved ODF status, although 100 percent households had gained access to improved sanitation. LATE ODF communities had focused on monitoring latrine ownership rather than on behavior change to eliminate open defecation.

3. Implementing agencies can effectively influence most factors associated with achievement and sustainability of ODF outcomes for scaling up rural sanitation. While a number of factors can be associated with ODF outcome achievement and sustainability, n*o* single factor of those listed in the charts below guaranteed ODF achievement. It is not possible to rank them in terms of importance, although some are associated and reinforce each other. QUICKLY ODF communities displayed the characteristics listed in the "Factors Working in

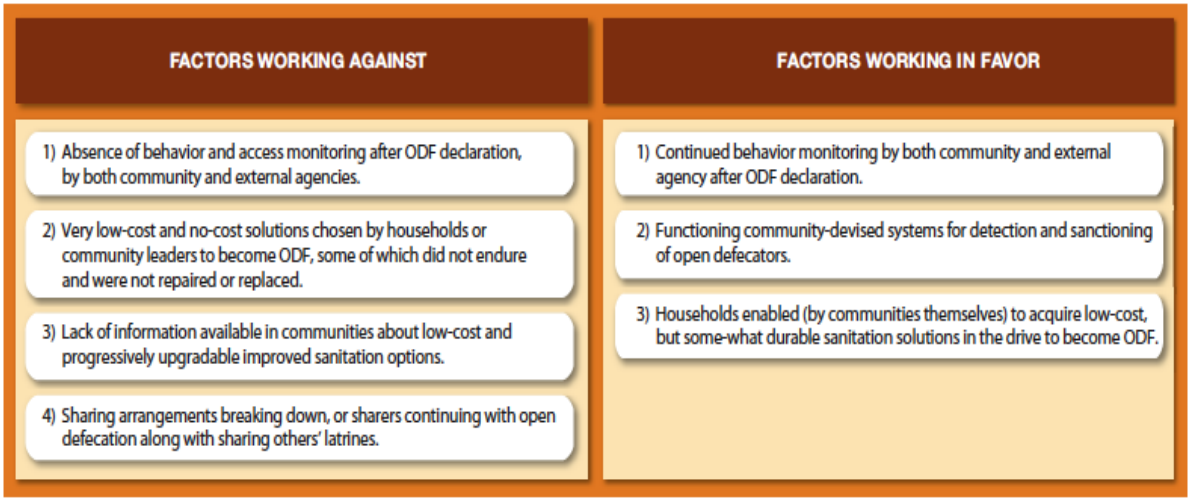
Favor" column. Both charts group factors associated with ODF achievement and sustainability in the last column. Factors associated with poor ODF achievement and low sustainability of ODF outcomes are summarized in the "Factors Working Against" columns.

While local governments cannot control some of these factors, such as high social capital in a village (factor #1), they can directly influence a number of others—from triggering in response of demand to access to information about affordable latrines—and support factors such as access at easier payment terms and regular community monitoring, to cumulatively enhance ODF outcomes.

FACTORS SUPPORTING OR WORKING AGAINST ODF ACHIEVEMENT



FACTORS SUPPORTING OR WORKING AGAINST SUSTAINABILITY OF ODF OUTCOMES



4. ODF and NOT ODF communities were significantly different in terms of proximity to water bodies. They were not significantly different in terms of topography (hills, plains, coastal regions), soil types (sandy, rocky, swampy), or proximity to forests and access to markets for sanitation supplies. Nor were notable differences found in terms of exposure to behavior change communication messages, which were reportedly seen or heard in less than 10 percent of all communities. ODF and NOT ODF communities were, however, significantly different in terms of proximity to water bodies. In all 20 districts, riverbank, beach, or lakeshore communities had the lowest sanitation access rates and were significantly less likely to achieve ODF status. This could be due to a strong preference for defecation into water bodies; a practice recalled in focus group sessions as "clean, hygienic, pleasant, convenient, free of cost" and one that has been a socially accepted tradition for many generations "without problems." Even latrine owners defecate into water bodies from time to time. Comments captured in focus group sessions included: "*Shit is not something to be kept in or near home. The river takes it away; We enjoy defecating in running water. It is also convenient, and free of cost; As long as rivers flow, why spend money and time to build latrines?*"

5. Open defecator households in rural East Java have the ability and opportunities, but often lack the motivation to acquire and use latrines. Open defecator and sharer households in all NOT ODF communities reported having easy access to markets for sanitation products and services. They also commonly owned permanent or semi-permanent homes, color television sets, either bicycles or motorbikes, and (more recently) cell phones. Some of these assets, costing much more than basic models of improved latrines, were acquired through installment credit or deferred payment arrangements matched with seasonal surpluses in income.

In ODF communities, the poorest had invested up to Rp. 300,000 (US$33) in building their starter-level permanent latrine, and Rp. 750,000 (US$82) for pour-flush systems offered on installment credit. Thus, improved sanitation facilities do not appear to be beyond the means of the rural poor in East Java. If sanitation improvement can be made into a higher household priority and offered on easier payment terms, open defecator and sharer households have the economic ability to acquire it in the same way.

6. Externally provided subsidies were associated with lack of ODF outcomes but community-provided subsidies were instrumental in ODF achievement. Despite the Health Ministry's 2008 STBM[2] strategy banning them, subsidies for household sanitation are still being provided in almost all districts by local government programs and national projects for poverty alleviation, and the private sector's corporate social responsibility funds**.** In communities where a few households had received subsidy packages, collective action to become ODF was reportedly hampered by the expectations raised among the rest of more such packages becoming available. External subsidies were never available for all households that might have warranted them, and thus had a socially divisive effect. All communities in the sample that had received external subsidy packages in any form, during or before the project period, did not become ODF, and were, in fact, still not ODF at the time of observation.

In contrast, community leaders' initiatives to enable all households to acquire the means to stop open defecation directly contributed to ODF outcomes. Examples include providing durable pit covers or low-cost latrine pans or cement from village development funds to those lacking latrines, or mutual self-help (*gotong royong*) drives to build latrines for all. The internally provided subsidies were precisely targeted, covered *all* whose behaviors needed to change, and were provided as a social solidarity measure to achieve a collective goal. The receivers reported that they felt accountable to their larger community for making the behavior change desired of them.

7. When CLTS ignited demand for improved sanitation in study communities, local markets failed to meet expectations of poor consumers. A smell-free and easy to clean pour-flush water seal latrine with ceramic pan is what the poor consumers said they really want, but found unaffordable as it costs upwards of Rp. 1 million (US$108). They were able to invest up to Rp. 300,000 (US$38) on a starter-level improved latrine, the dry pit *cemplung*, which was highly affordable but smelly and not desirable. Dry pit owners saw them as temporary measures not worth sustaining over the long-term. Many non-owners of latrines reported putting off constructing a latrine (and continuing with open defecation presumably) until they can afford the desired type.

In only nine percent of the sample communities, the desired model was found to cost much less, around Rp. 750,000 (US$82), where project-trained masons had offered several reduced-cost options of the facility and also offered installment payment options. All poor customers in those communities had gone directly for pour-flush systems as their starter models and entrepreneurs offering such options were overwhelmed with orders. In the remaining 91 percent communities no one had seen the *Informed Choice Catalogue* of low-cost options

[2] *Sanitasi Total Berbasis Masyarakat* or the Community-Based Total Sanitation Strategy, launched as a ministerial decree in August 2008.

developed by the project. Locally resident masons in the communities, who were the principal source of information to consumers, had generally missed out on project-provided training on lower-cost sanitation options and were not promoting them.

These anomalies arose out of the long delay in delivering the sanitation marketing component of the project implementation. Sanitation market research results were unavailable until two years into project implementation. The marketing strategy was developed by early 2009 and local supply capacity improvement interventions began only by mid-2009, whereas demand creation through CLTS had been ongoing since November 2007. Findings from this study suggest that reversing the sequence, (that is, first understanding both consumer preferences and the supply capacity of local markets using market research, secondly developing pro-poor marketing strategies in response, and then using CLTS and behavior change communication (BCC) interventions to generate demand while simultaneously helping local supply capacity to grow), might better accelerate sustainable behavior change. Doing this would enable both poor and non-poor consumers to invest in what they really desire, at prices they can afford, and make better-informed choices for sanitation improvement. All three factors are likely to produce more sustainable outcomes.

Implications for Programming to Scale Up

Based on the action research findings, the following insights are offered for the consideration of policymakers, implementers, and rural sanitation program financiers seeking to scale up the achievement of "sustainably ODF" communities.

1. **To provide the basis for planning effective behavior change interventions *at scale*, it is worth investing into market research *before* starting demand generation.** It could be more productive to schedule CLTS triggering *after* provincial[3] market research results are used to:
    - Identify a *pro-poor marketing strategy* for the province, namely: *product* and *price* options based on poor consumers' preferences, and ways of *promoting* and *delivering* those options on demand.
    - Identify gaps between what poor consumers want and what local markets are providing, to improve local supply capacity simultaneously wit*h* demand creation.
    - Sharpen the focus of demand generation strategies (CLTS and BCC) with reliable information about the target population's motivations abilities and opportunities to improve them.

[3] Province-level market research and strategy in Indonesia; may be applicable for country-level research in smaller countries.

2. **Districts hoping to scale up sanitation access sustainably need a '*subsidy funds management strategy'* that prevents subsidies from hampering the growth of both consumer demand and local supply capacity.** Unregulated and practically untargeted inflows of funds for sanitation subsidies to households from several public and private sector sources were observed in many study communities. These constitute a serious threat to the effectiveness of the new rural sanitation approaches. Political leaders such as *Bupatis (*Head of district) and district legislators have the power to regulate the use of all local funds. Evidence-based advocacy with them can lead to a *district subsidy funds management strategy* supportive of, or at least not detrimental to, approaches to achieve collective community sanitation and hygiene behavior outcomes.

3. **For cost-efficient scaling up, districts need to plan rural sanitation interventions by zoning, clustering, and phasing communities in response to specific conditions.** The study found evidence that CLTS triggering, follow-up support, and monitoring strategies need to be adjusted to both specific locations and conditions that affect open defecation practices and to the factors that motivate people to continue such practices, such as: riverbank and beach communities; swamp regions with high water tables, little dry land and transportation problems; or water scarce regions. Using these criteria to plan interventions by segmenting, zoning, and phasing sub-districts or clusters of villages, would make for more cost-efficient logistics for demand creation, follow up, monitoring, and supply improvement facilitation.

4. **CLTS interventions can be provided in response to expressed demand from village leadership, to improve community response to triggering.** The study identified demand-responsive CLTS triggering as a key to success. Focus groups in ODF villages emphasized that community leaders who want their villages to become ODF tend to mobilize all community sub-groups to participate in triggering, reinforce the triggering effects through community institutions and events thereafter, and monitor progress effectively. In the post-triggering period, they also ensured that all households changed their OD practices and did not slip back into them. On the other hand, uninterested and uninvolved village leaders were found mostly in the NOT ODF communities. It is therefore recommended that:
    - Sub-district government functionaries utilize available institutional mechanisms for generating a competitive spirit among village leaders and raise demand from them for interventions to help make their villages sustainably ODF.
    - Triggering interventions be made conditional to formally expressed demand from village leaders.
    - Sub-district offices or *Puskemas* (community health centers) draw up annual plans and budgets for triggering and follow-up by aggregating the expressed demand.

5. **Improve triggering outcomes at scale based on study findings about what helped and what hindered collective behavior change.**

CLTS facilitators' training currently provided can be improved in the following ways:

- Review training being provided by various government agencies and NGOs and establish quality standards for training delivery.
- Emphasize in both operation manuals and training guidelines the need to de-link CLTS triggering from advice/information about latrine construction, and make triggering fully gender and socially inclusive.
- Sensitize facilitators to the need to adjust triggering and follow-up strategies to community characteristics that determine people's ability and motivations to change behavior. Market research findings on open defecators' and sharers' motivations, abilities, and opportunities to change behavior should be discussed in CLTS facilitators' training.
- Include information on ways to encourage reliable progress monitoring by communities and clarify an adequately structured post-triggering follow-up process within the training.
- Advise local governments to allocate annual budgets for learning exchange events and refresher training of CLTS facilitators with the goal of continuing to improve triggering, follow-up, and monitoring processes.

Post-triggering follow-up can be improved in the following ways**:**

- Post-triggering processes should be given a verifiable structure by establishing and periodically checking for desired progress quality indicators/milestones[4] for success in triggered communities in order to improve institutional accountability for and the quality of follow-up. Institutional adoption of a structured follow-up process also makes it more likely to be adequately funded.
- District governments should reward facilitators for ODF outcomes in order to incentivize the quality of triggering and follow-up. This reward could be linked with independent ODF verification systems.
- Periodically check whether ODF status is sustained in already verified ODF communities through the use of established institutional monitoring systems. The results should lead to sanctions like withdrawal of ODF status when communities fail to keep up ODF conditions.

6. **Open defecators and sharers can be targeted for behavior change more effectively by segmenting them.** Open defecators and sharers in twenty districts reported no major constraints in terms of their ability and opportunities to change their defecation practices. However, motivations to change behavior were weak, and open defecators and sharers had different motivations for continuing their existing practice. Open defecators *into water bodies* were generally happy with their practice, whereas sharers were frequently embarrassed and unsatisfied about sharing,[5] but

[4] A sample *Process Quality Indicators Checklist* is included in Chapter 8.

[5] *TSSM Market Research in East Java* (Nielsen 2009) reported a similar conclusion among a section of sharers.

continued sharing because they lack awareness of affordable options or land to build their own facilities. In the post-triggering phase, behavior change communications to open defecators and sharers could be more effective if messages targeted them differently by segmenting them according to their underlying motivations for continuing the current practice.

I. Introduction

What does it take to bring about sustainable sanitation behavior change cost-effectively and at scale?

The search for answers to this question has intensified in the rural sanitation sector in Indonesia, where access to improved sanitation has grown much too slowly from 22 percent in 1990 to just 36 percent in 2008,[6] and the Millennium Development Goal target for rural sanitation seems well beyond reach. Meanwhile economic losses from poor sanitation and hygiene are costing Indonesia US$6.3 billion or 2.3 percent of its GDP per year.[7]

WSP's Scaling Up Rural Sanitation initiative, a learning-by-doing initiative implemented in partnership with local and national governments in Indonesia, India, and Tanzania,[8] sought answers by working at scale from the beginning and by testing a combination of two relatively new and promising approaches. The project combined three components: Community-Led Total Sanitation (CLTS) and sanitation marketing (SM) to generate demand and increase supply of sanitation goods and services, and efforts to strengthen the enabling environment (EE) so that demand and supply improvements could grow and sustain each other with supportive—and ultimately institutionalized and sustained—policies and practices. The project target was to increase access to basic sanitation for a total of 4.46 million people in four years. In 2011, building on this work, WSP recognized rural sanitation and hygiene as a core business area and is engaging governments in an additional 14 countries to build on lessons learned.[9]

Scaling Up Rural Sanitation (initially known as the *Total Sanitation and Sanitation Marketing,* or *TSSM*, project) was launched in the East Java province of Indonesia in January 2007. At project inception, East Java was home to 20 percent of the country's poor and had a total population of 37.4 million of whom 32.35 million lived in rural areas. By early 2010, the fourth and final year of project implementation in East Java, with nearly 2000 communities triggered using the CLTS approach, over 700,000 people had gained access to improved sanitation and 35 percent of all triggered communities had become Open Defecation Free (ODF). But the percentage becoming ODF in different districts varied widely between 10-95 percent, raising policymakers' concerns about scaling up, and the urgency to better understand what

[6] WHO-UNICEF. 2010. *Progress on Sanitation and Drinking Water: 2010 Update,* available at www.wsssinfo.org

[7] Water and Sanitation Program2008. *Economic Impacts of Sanitation in Indonesia:* A Five country study under the Economics of Sanitation Initiative (ESI), Research Report.

[8] For more information see www.wsp.org/scalingupsanitation

[9] For more information, see www.wsp.org/scalingupsanitation

influenced triggered-to-ODF conversion rates, as well as what sustained ODF outcomes, once achieved. The present action research study was carried out in response.

1.1 Study Objectives

During the last year of project implementation in Indonesia, WSP offered all districts a research opportunity to learn from communities how they had experienced project implementation, so that conclusions could be drawn about how triggered communities could both become open defecation free (ODF) faster and sustain their status, and how overall implementation effectiveness could be improved. Twenty districts chose to participate in the Action Research Study designed and carried out by the project during August and September 2010. The study covered 80 communities selected using stratified sampling from four categories of CLTS- triggered communities, specifically: a) QUICKLY ODF; b) LATE ODF; c) NOT ODF but having high sanitation coverage; and d) NOT ODF and having low coverage.

Specific objectives were:

1. To identify the principal factors influencing the achievement and sustainability of collective behavior change by communities to become ODF.
2. To identify links between influencing factors, in order to help prioritize actions in response by various sector stakeholders.
3. Based on the findings, recommend strategies to accelerate the achievement and ensure the sustainability of ODF status by communities.

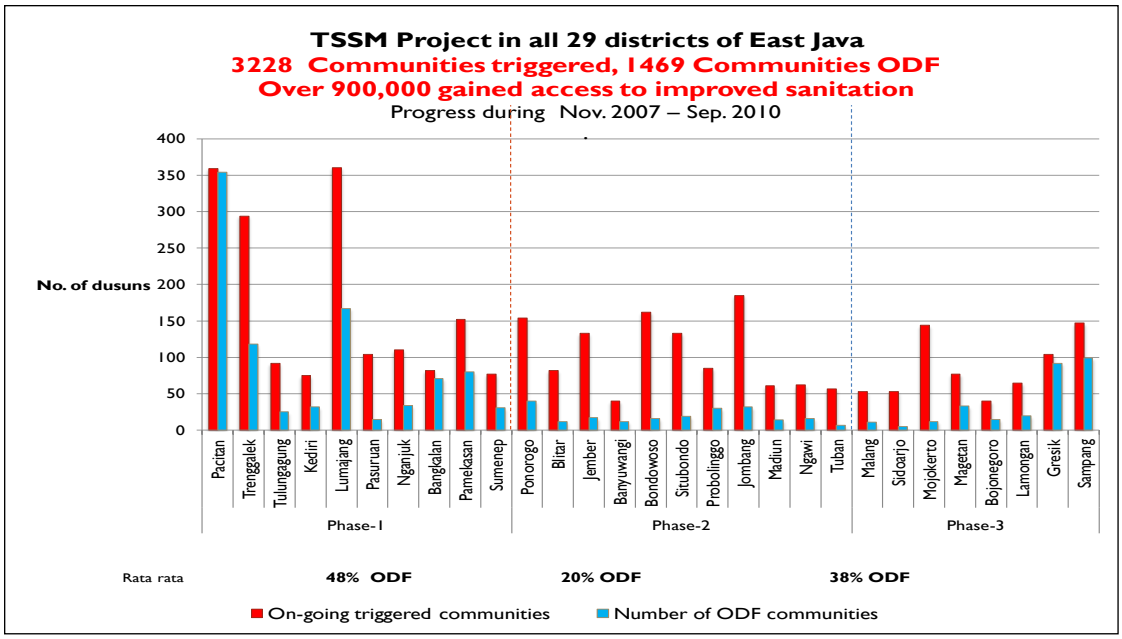
1.2 Project Background in Indonesia and Study Rationale

Indonesia is highly decentralized and district local governments are fully responsible for planning, funding and implementing their development agendas, including that for rural sanitation. Sector policies and strategies are designed at the national level, albeit with extensive sub-national level consultations. Their implementation depends on the extent to which local governments buy into and fund operations. This reality influenced WSP's strategies for project implementation and institutionalization of innovations. The project was introduced using a demand-driven strategy. To increase buy-in and the adoption of approaches that would be institutionalized—and funded—after the project ended, district governments were asked to make a formal request to participate and to pledge co-funding and manpower commitments. Project implementation started in November 2007. By February 2010, 3043 communities had been triggered using CLTS approaches.[10] Of these, only 1290, or about one-third, had become

[10] Community-Led Total Sanitation (CLTS) uses a participatory analysis and action process to trigger community-wide commitment to end open defecation. Triggered communities make action plans about how they will change sanitation behavior and by when. In the Scaling Up Rural Sanitation project in Indonesia, in order to achieve open defecation free (ODF) status, all households must have access to and be using improved sanitation facilities for all human excreta disposal. When communities succeed and the claim of success is verified, they are declared open defecation free (ODF). However, in

ODF. Analysis showed that the conversion rate of triggered communities becoming ODF ranged from 10 to 95 percent in different districts, averaging 45 percent across all (see Figure 1).

FIGURE 1: PERCENTAGE OF TRIGGERED COMMUNITIES ACHIEVING ODF

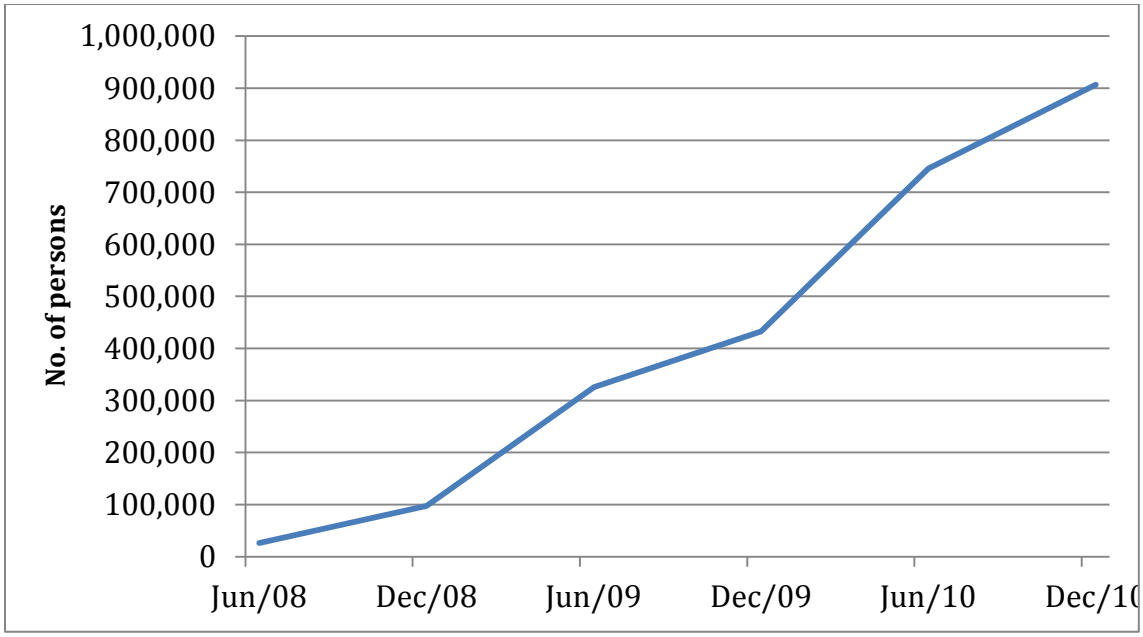


Source: TSSM Monitoring Information System

Further, access gains and ODF conversion rates tended to fluctuate annually, with the pace decreasing from December to May, early in the annual budget cycle, and increasing 3-4 months later, as newly triggered communities begin to reach ODF status (see Figures 2 and 3).

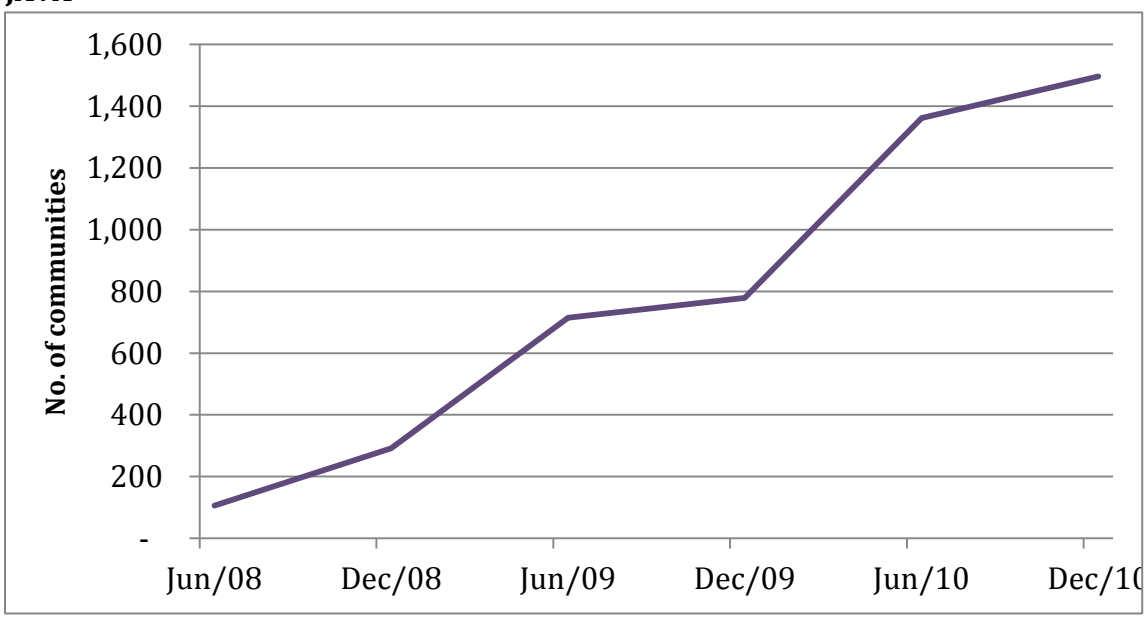
FIGURE 2: NUMBER OF PERSONS GAINING ACCESS TO IMPROVED SANITATION DURING TSSM IMPLEMENTATION IN EAST JAVA (CUMULATIVE)

some communities, action plans are not always fully realized, as the process is open to various internal and extraneous influences.



Source: TSSM Monitoring Information System

FIGURE 3: TREND OF ODF ACHIEVEMENT DURING TSSM IMPLEMENTATION IN EAST JAVA



Source: TSSM Monitoring Information System

Improving CLTS to ODF Conversion Rates. To achieve efficiency in scaled up sanitation programs, program financiers (donors, national and local governments, elected legislators) need to understand why the CLTS triggering-ODF conversion rate is low, and what strategies can be adopted by social intermediary agencies (local governments, NGOs, etc.) to make this conversion both more efficient at scale and sustainable.

Understanding Health Impacts. When a community fails to reach ODF status there may yet be significant changes among segments of the population that have gained access to improved sanitation. It is not yet known what impact this has on health,[11] whether improved sanitation access must be 100 percent to reach evident health improvements, or whether 80 to 90 percent access might reduce the incidence and prevalence of diarrhea.[12] In project areas, the reported incidence of childhood diarrhea fell markedly in communities declared ODF.[13] This sparked extensive interest among stakeholders to identify what can help increase the proportion of triggered communities that become ODF.

Reaching ODF. Project monitoring data analysis shows that as much as 80 percent of the total gain in access to improved sanitation happened in communities that became ODF. It is important to understand the processes and conditions associated with those communities to scale up and replicate cost-effectively.

Understanding Follow-Up Requirements and Sustainability. CLTS is not entirely new to Indonesia, having been introduced in several provinces through two large-scale rural water and sanitation projects. However, the way CLTS was implemented through these projects led to the perception that CLTS was a "triggering activity." As a result, many triggered communities received no further follow up and sanitation programs did not budget for post-triggering support; further, there were no clear guidelines to support cost-effective follow-up at scale.

Studies in countries where CLTS had been implemented 8 to 10 years ago found that 10 to 30 percent of households slip back to or continue open defecation in communities previously declared ODF.[14] Reasons reported for backtracking have been as varied as annual flooding of living environments, disputes between households sharing latrines, latrines being unavailable at worksites and children's fear of falling through the hole. It is clear that scaling up sanitation requires programs with built-in incentives and checks to support sustainable behavior change. This study sought to identify relevant and feasible checks and incentives and identify what follow up strategies will maximize desired outcomes.

[11] WSP is conducting an independent impact evaluation study in each country to measure health impacts from the interventions.

[12] In other public health interventions, such as vaccination or bed-net programs for malaria, health benefits have been noted at coverage rates of about 80 percent because that was enough to lower the incidence and prevalence of the disease.

[13] As noted in Puskesmas (sub-district level Community Health Center) records.

[14] Howes and Huda, 2009; Hanchette, et al, 2011

How to Sustain Behavior Change. Kamal Kar and Robert Chambers classify individual communities as “matchbox in a gas station” (fully ignited into action), “promising flames” (about to ignite), “scattered sparks” (ignition not yet widespread in the community, but potential is evident) and "damp matchbox" (communities resistant to igniting). They assert that ineffective triggering is the result of poor CLTS facilitation, which they link to poor training of CLTS trainers.[15] A rapid assessment of the Total Sanitation Campaign in India conducted by WSP found a strong positive correlation between program processes and desired outcomes, including processes for catalyzing behavior change.[16] A WSP study in Bangladesh on the sustainability of CLTS outcomes concluded that behavior change at scale was sustained by a shift in social norms away from open defecation, and that sustained latrine usage and ownership were associated with market availability of goods and services, and continued government programs for sanitation promotion.[17]

There has not yet been systematic investigation from the triggered community’s point of view of all possible influencing factors such as: availability of community incentives or rewards for ODF achievement; availability of affordable sanitation products and services that meet consumer preferences; availability of access to credit for households; and level of poverty of the households. Additional factors could be the capacity of the local government to facilitate CLTS at scale and effectiveness of donors and national governments in providing capacity building and related tools and resources. The relative importance of such factors needs to be understood in order to prioritize and focus on key factors.

Increasing Supply and Demand. The project supplemented CLTS with behavior change communications designed to help increase demand for improved sanitation in villages that have been ignited. The project also built the capacity and motivation of local sanitation service providers to offer a wider range of low-cost sanitation options, tapping latent demand among poorer segments of rural consumers. Feedback from consumers is needed to understand how the combination of approaches reach them and what can be done or sequenced better or differently, so as to provide information about available options and to motivate and support behavior change.

These questions suggested an opportunity for additional research. Following consultation with government stakeholders WSP designed an action research, or participatory, study to learn from communities how they had experienced project implementation in an effort to better understand (1) how triggered communities could become open defecation free (ODF) faster and sustain their status; and (2) how overall implementation effectiveness could be improved.

[15] Plan International and IDS, 2008

[16] WSP and Government of India Ministry of Rural Development, 2011

[17] Hanchette, et al, 2011

II. Methodology

The researchers worked with community members using an action research approach to analyze outcomes of project interventions and what influenced them. Information gathered was discussed with the local government implementers and used to identify actions to make the sanitation behavior change process more effective and efficient at scale. Information was also aggregated and analyzed with district-level government agencies. This process was used to build understanding in district health offices about participatory learning and sampling methodologies, how to investigate program effectiveness, and how to draw implications for follow up action based on research findings. Research was conducted during August and September 2010.

2.1 Sampling Procedure and Sample Size

District participation in this study was based on demand. All 29 districts in East Java were invited and 20 chose to participate (see Figure 4). The districts were evenly distributed across all three phases[18] of project implementation, with seven districts each from the first and third phases, and six districts from the second phase. A total of 80 communities were randomly selected from four sub-categories to allow further investigation of factors influencing a wide range of outcomes: Sample categories reflected the range of outcomes to be studied in terms of the ODF status of communities. The project had introduced ODF verification procedures in all districts, with process guidelines based on those definitions. Different districts use the process with varying levels of rigor. Twenty communities were selected from each of the four sample categories, with the following assumptions:

- **QUICKLY ODF: self-declared ODF within two months, even if verified at a later date**. These communities would represent the best-case scenario, whereby factors influencing collective behavior change positively could best be studied;
- **LATE ODF: Self-declared ODF within seven to 12 months of triggering**. These communities would reveal factors that tend to inhibit collective change and delay ODF outcomes;
- **NOT ODF (High): Failed to become ODF even 1 year after triggering, but having High sanitation coverage,** i.e., over 80 percent households. These

[18] The project was implemented in East Java in three phases, with each phase lasting 8 to 9 months in a district. Phase 1 covered 10 districts; phases 2 and 3 covered 11 and 8 districts, respectively. Phasing was done in response to demand formally expressed by districts for participation in the project, and by their being ready with necessary co-funding and manpower.

communities would illustrate situations in which change starts but fails to proceed to full coverage and ODF achievement; and

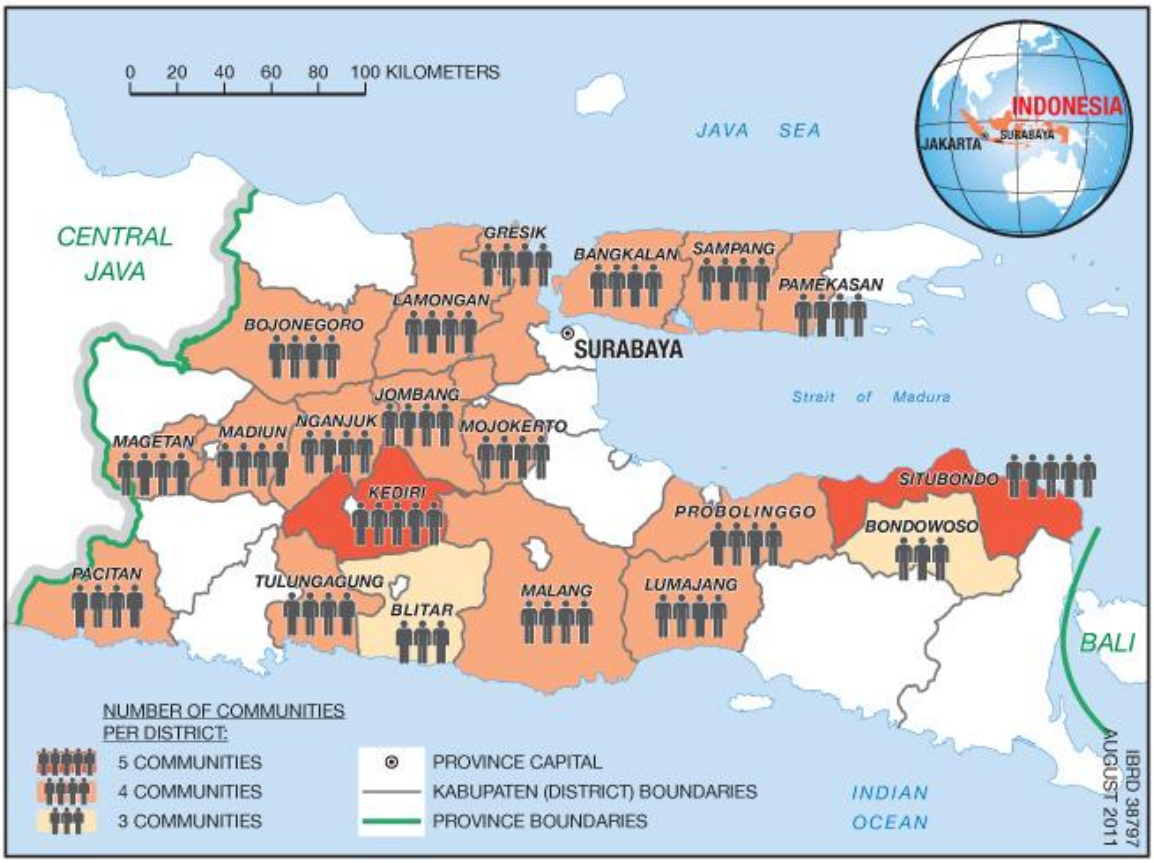
- **NOT ODF (Low): Failed to become ODF even 1 year after triggering, and having Low sanitation coverage**, i.e., less than 50 percent households. These communities would identify situations in which collective change processes fail to take off.

Categorization of communities was done in keeping with the monitoring information available at the district health office, and data accuracy verified through telephone calls to the relevant *puskesmas* (sub-district health centers) where more detailed community data are kept. A final check was made by the researchers during pre-investigation visits to selected communities to verify that they fulfilled the stratification criteria.

In each district the universe comprised all communities triggered by the project or local government and previous projects. They were first grouped into ODF and NOT ODF categories by the district health office. Action researchers verified correct categorization and completeness of the lists. Random selection of four study communities per district was done as follows in district health offices.

Folded slips carrying single community names were placed in two bags labeled ODF and NOT ODF. From each bag a slip was randomly picked, and the relevant Puskesmas or village leader was telephoned to verify ODF status or lack thereof, and how long the community had taken to become ODF. The procedure was repeated, until four communities were found to fit the four sub-sample categories. Two districts did not have QUICKLY ODF communities. Two additional communities were picked from neighboring districts, using the same procedure.

FIGURE 4: ACTION RESEARCH SITES IN 20 DISTRICTS IN EAST JAVA



2.2 Data Collection and Analysis[19]

Before gathering data, the researchers checked the consistency of health office records with data reported from the sample communities, including the dates and processes of ODF verification and what the community understood ODF to mean. In addition, the researchers checked for community-instituted methods for monitoring behavior, detecting open defecation, and instituting sanctions against people found defecating in the open.

Four field researchers who were experienced in participatory research methods, CLTS triggering, and follow-up processes, and who were familiar with project implementation collected data. Each researcher spent up to two days and nights in each community. During this time the researcher held focus group discussions and participatory assessments with community sanitation committee members, natural leaders emerging from the CLTS triggering process, community leaders, and household members. In the 40 NOT ODF communities studied, focus group discussions were conducted with open defecators and sharer households to learn about the basis for their sanitation behaviors, explore whether open defecation was practiced by a majority or only a few in the community, and to identify common characteristics.

[19] At the time of the data collection and analysis, the exchange rate was US$1 = Indonesian Rupiah (Rp.) 9,200.

In addition, in each community, the researchers observed community monitoring tools being used, sites previously used or still used for open defecation, environmental sanitation conditions, and latrines constructed during project implementation in homes of poor, rich, and in-between households. Community-provided information was triangulated with project monitoring data, *puskesmas* staff involved in triggering CLTS and monitoring, and sanitation suppliers and masons operating in the community.

WSP designed and provided tools, data recording formats, and training. The tools were pre-tested in Gresik district and finalized in July 2010. Documentation of site reports in MS Access facilitated content analysis of qualitative and quantitative data. Non-parametric statistical tests were used where appropriate.

Box 1: Data Collection Instruments

- Focus group discussions with community men and women's groups, including Community Sanitation Committee members.
- Focus group discussions with open defecator household members and sharer household members.
- Participatory analysis tools, including Tracing Timelines, Welfare Classification (in communities which did not have welfare classes marked on their Social Maps), transect walk and diagramming for fecal contamination routes (these tools were integrated within the overall *Focus Group Discussion Guide*).
- Observation of latrines in poor, rich, and in-between households in each community.
- Interviews with owners of the latrines in each home.
- Demonstration of the Informed Choice Catalogue with open defecators and sharers in NOT ODF communities.
- Environmental observation with checklists.
- Checking of community maps/records of monitoring sanitation access and ownership of improved/unimproved latrines in all communities.

2.3 Study Limitations

- The action research study was carried out in 20 districts of East Java. The findings may not be fully applicable to other provinces of Indonesia for reasons of cultural, demographic, and socio-economic diversities.
- The sample of 80 communities does not claim to be completely representative of all triggered communities, as they were selected from four purposively defined sub-categories of triggered communities.
- Each district contributed four communities representing the four types to the total sample, but these communities do not represent district averages of any kind. Blitar and Bondowoso districts did not have any communities in at least one of the categories.

To fill the gaps, two more communities were selected from Kediri and Situbondo districts which are contiguous to Blitar and Bodowoso respectively.

- Quantitative data reported in the findings must be interpreted within the context of methods used to collect the data.
- Poverty indicators used in this study are not based on socio-economic surveys or income quintiles. Community households are categorized as *poor, rich,* or *in-between* based on *Welfare Classification*[20] exercises with communities. This is a participatory assessment tool that groups households in different well-being categories using the community's own criteria. It was introduced by the project in triggered communities for the purpose of participatory progress monitoring.

[20] This study uses economic categories of households (Poor, Rich, In-between) derived from Social Welfare Classification, a participatory analysis tool whereby each community categorizes its households using locally applicable criteria. Typically, such criteria include livelihoods, ownership of land and types of homes, livestock, means of transportation and other assets, amount of schooling of household head, extent of indebtedness, aspirations, etc. The project introduced this tool along with social mapping for community monitoring, and many communities already had households classified by welfare categories at the time of the study. For a full description of the Welfare Classification Tool, see Mukherjee, N and. van Wijk, C. 2003. *Sustainability Planning and Monitoring in Community Water Supply and Sanitation: A Guide to the Methodology for Participatory Assessment* (MPA). WSP-IRC-World Bank.

III. Similarities and Differences Between ODF and NOT ODF Communities

Key Findings

Similarities include:

- Topography, soil type, proximity to forest
- Preference for OD in forest/ravine/crop field/bamboo grove
- Expectation of subsidy
- *Reported* lack of money and manpower to build latrine
- Local access to markets, building materials, and masons

Differences include:

- Process history of triggering and post-triggering follow up
- Extent of social capital
- Strategies they used to address obstacles to progress towards ODF status
- Monitoring methods
- Proximity to flowing water: Communities located near flowing water bodies have the lowest access to sanitation and are less likely to become ODF (significant at p = 0.05 level)

3.1 ODF and NOT ODF: Similarities and Differences

The ODF verification system introduced by the project in Indonesia is stringent by global standards in that being certified as ODF requires all community households to own and use *improved* sanitation facilities, unlike as reported in Bangladesh, Nepal and Nigeria.[21]

Research showed that people in both ODF and NOT ODF communities understand ODF to mean: a) all community members defecate only into latrines; and b) all households own and use improved sanitation facilities (*jamban sehat*) when "*jamban sehat*" meant latrines that confine feces in ways that make them inaccessible to insect vectors and animals, prevent contact between people and feces, do not pollute water bodies, and prevent foul smell.

Community members were clear that open pit latrines and hanging latrines over water should not be classified as *jamban sehat*, and that the use of latrines that discharge feces directly into water bodies is tantamount to open defecation—even if the latrine includes a ceramic or concrete water closet.

[21] WaterAid 2009; Kullmann and Ahmed et al. 2011

This study found that 38 out of the 40 sample communities classified as ODF (both QUICKLY and LATE) fulfilled the requirement for 100 percent household ownership of latrines that confine feces safely, although the quality of the facility varied greatly. The rich invariably had pour flush systems with septic tanks or twin pits, while the poor had direct or offset pit latrines with well-fitting lids. Those in between had a mix of improved dry or offset pit latrines with cemented slabs or pour flush systems with a single leaching pit. Further details of latrine types and costs are discussed in Chapter 7.

Two exceptions, Dusuns Proyek and Ledok, present situations that flag important questions about post-ODF monitoring. In Proyek (see Box 2) the facility in question is 'improved' by JMP technical standards, but is co-owned and shared by several households. How should the co-owning user households be classified? Are they people "lacking access to improved sanitation"? Are they open defecators? In Ledok (see Box 3) some ODF communities were rendered NOT ODF over a period of time, not due to slippage in behavior, but because of lost or damaged latrine pit covers which were not replaced.

Discussions with district health offices and *puskesmas* personnel clarified that "sharer" households owning no facilities were initially mapped in the project monitoring system, but were later coded as "open defecators" because project implementation had shown it was risky for a community to declare ODF yet include a segment of the community sharing latrines. Sharers do not consistently defecate in latrines. Continued open defecation is common among sharers. Also, when there is institutional pressure to show more ODF results, communities which are close to, but not ODF, may be declared ODF by simply designating the last remaining households resisting change as "sharers."

When the project started to raise the profile of sanitation issues in the province, several *Bupatis* and *Camats* prioritized sanitation programs for attention due to the JPIP evaluation including sanitation performance as a criterion.[22] To extract political mileage and capture media attention, political leaders sometimes set unrealistic target dates for their sub-districts and districts to become ODF. The resulting pressure on implementing agencies can cause misreporting and fudging of community monitoring data when actual achievements fall short of targets.[23] The "sharer" category initially provided the loophole through which this could be done.

[22] Jawa Pos Institut Pro-Otonomi (JPIP) is a part of East Java's largest media network, Java Post. JPIP evaluates district governance and awards the best-governed district every year. For the district leaders (*Bupatis*) and their next in command at sub-district level (*Camats*), it is a coveted and prestigious award. Starting in 2009, JPIP has adopted sanitation program performance as an indicator of district governance and uses the indicators introduced by the TSSM project to measure performance.

[23] This trend has been observed in other countries where ODF achievement is rewarded by the state. The annual Nirmal Gram Puraskar scheme in India is grappling with very large scale verification challenges as tens of thousands of ODF claims are submitted from many provinces every year and certified ODF communities are found to be so only on paper.

Box 2: Access Monitoring Needs to Differentiate Between Co-Owners Sharing Latrines and Simply Usage Sharers

Researchers found that only 60 percent of households had improved sanitation facilities in Dusun Proyek of village Sariwani , district *Probolinggo,* but it was recorded as ODF in the district database. This was reported to the relevant puskesmas and district health office, and further research raised a wider question relevant to JMP-compliant monitoring.

Proyek was verified on February 3, 2009. According to the community and puskesmas staff that verified them, household ownership of improved sanitation was 20% at baseline. After triggering it rapidly increased to 60%. Access to improved sanitation was considered to be 100% during verification because many of the new improved facilities were co-owned by two or three households that had each invested in building them. Reasons for co-ownership were attributed to shortage of land to build; sufficient social cohesion to make sustained sharing feasible; and the appeal of pooling resources to acquire a facility that would have been unaffordable for individual households.

The researchers found that the co-owners were sharing and maintaining their facilities together satisfactorily. However, because the JMP definitions do not recognize shared facilities as being "improved," the project monitoring system recorded access to improved facilities only for those households which housed the latrine, and not for those who jointly owned but did not house it.

Box 3: Cessation of External Monitoring After ODF Declaration Is Risky

Dusun Ledok in Grobogan village of Lumajang district is noted for extreme water-scarcity. At the time of triggering, most households had open pit latrines. Ledok became ODF in September 2008, one month after triggering. The community decided to cover the pits but, because the community lacked access to water, pour-flush latrines were not an option. Household contributions in cash and in kind and *gotong royong* organized at a local timber merchants' workshop led to all households being able to place wooden platforms and well-fitting lids on latrine pits. Ledok reported a drop in diarrhea cases, from 11 cases in September 2008 to six cases in September 2009 and one case in September 2010.

Two years after becoming ODF, nearly a fifth of the pit covers had been damaged or lost. Obviously the community did not remain ODF. A visit conducted as part of the action research sparked off plans by the village government to replace all missing and damaged

3.2 Soil Type, Access to Markets, Proximity to Water

Assumptions have often been made about inherent characteristics of communities as well as external factors that influence the likelihood of achieving or failing to achieve ODF. The study cross-tabulated sample communities by selected situational characteristics to reveal possible correlations.

Research showed that ODF and NOT ODF communities were distributed similarly across different topographical conditions and soil types and proximity to forests. Also, there were no appreciable differences in terms of their proximity to markets for sanitation supplies and service providers (Figures 5, 6, and 7).

Proximity to flowing water bodies, however, is a significant factor. The closer the community to a river, canal or the sea, the less likely it is to become ODF. Figure 8 shows the sample distribution of ODF and NOT ODF communities by distance from water bodies. Residing on a riverbank or the beach, or within 100 meters of a riverbank or beach can be associated with failure to reach ODF status. In other words, people living very close to water bodies tend to continue to defecate in them. This association yielded a Chi–square value of 6.797, significant p=0.05 (Figure 8).

Sixty percent of communities studied were crossed by a river, stream, or irrigation canal and another 20 percent were within half a kilometer of these bodies or the sea. Ninety percent of communities were within one to five kilometers of a market to access sanitation supplies and service providers. Poor access to markets and supplies was not found to be a problem except in two communities that were located in swamps and depended on boats as the only means of transport.

FIGURE 5: SAMPLE DISTRIBUTION BY COMMUNITY CATEGORY AND TOPOGRAPHY

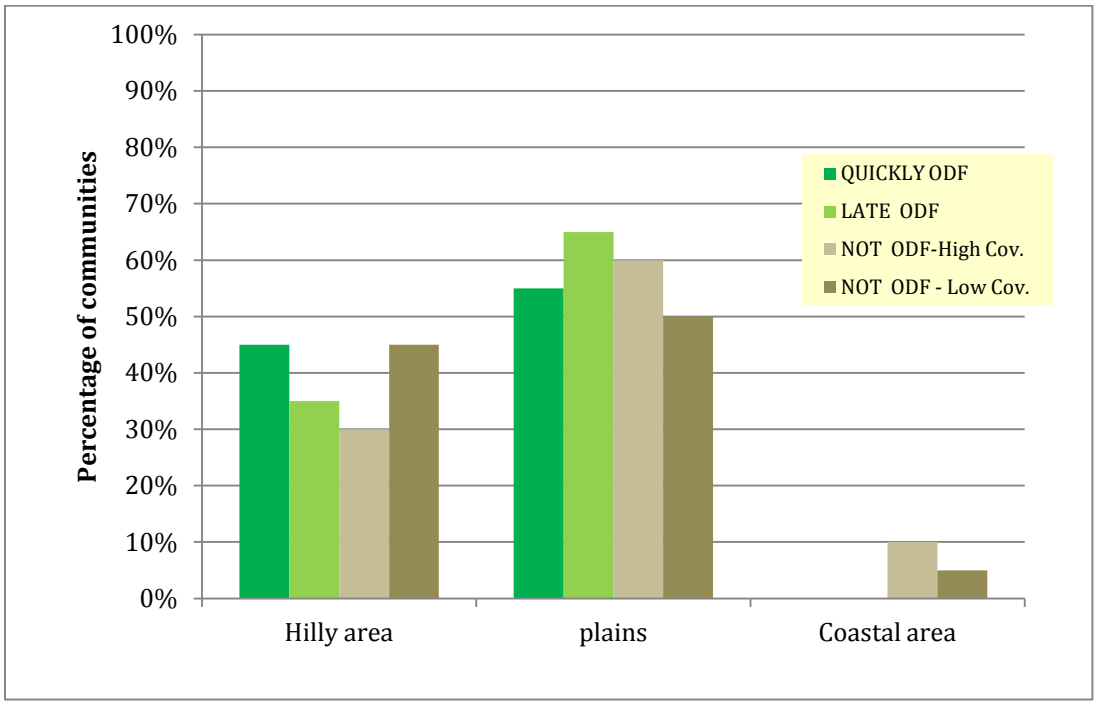


FIGURE 6: SAMPLE DISTRIBUTION BY COMMUNITY CATEGORY AND SOIL TYPE

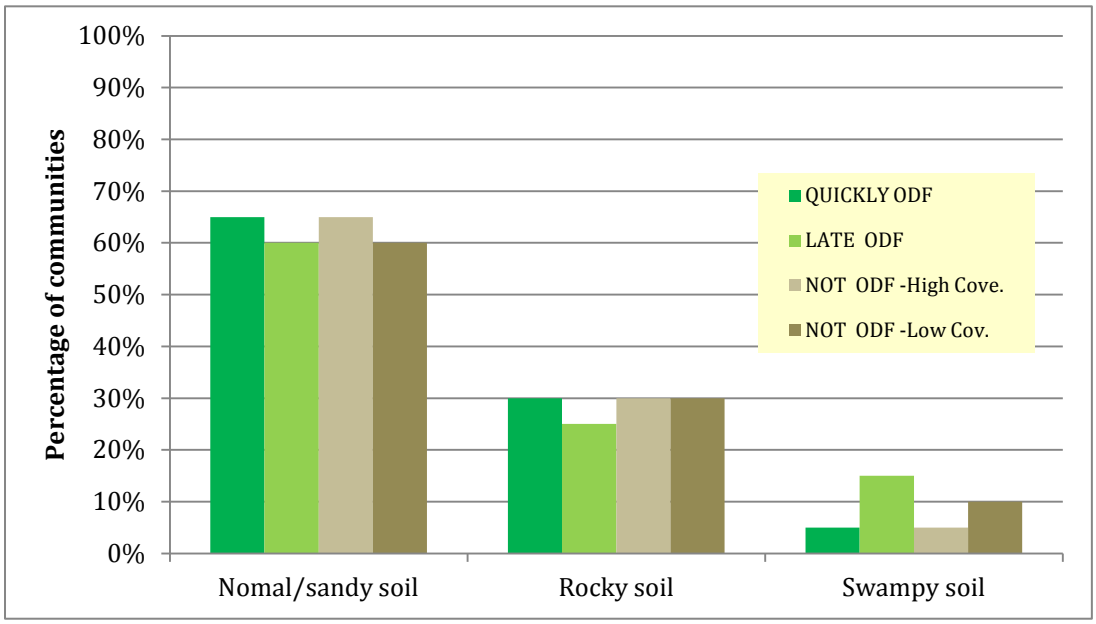


FIGURE 7: SAMPLE DISTRIBUTION BY COMMUNITY CATEGORY AND DISTANCE TO SANITATION SUPPLIES

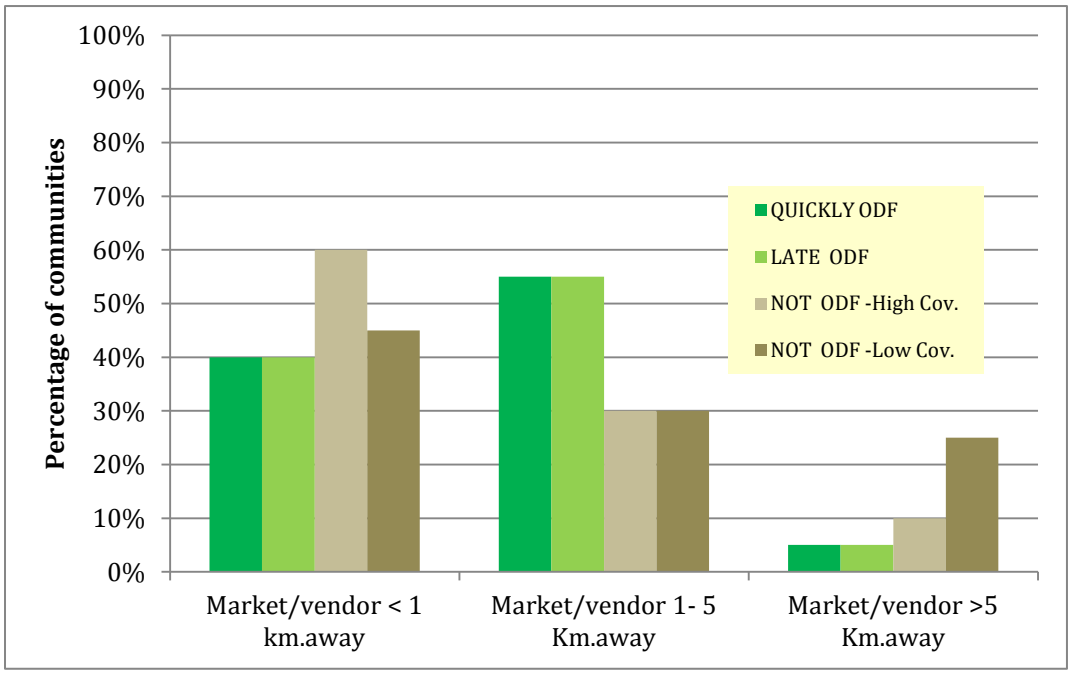
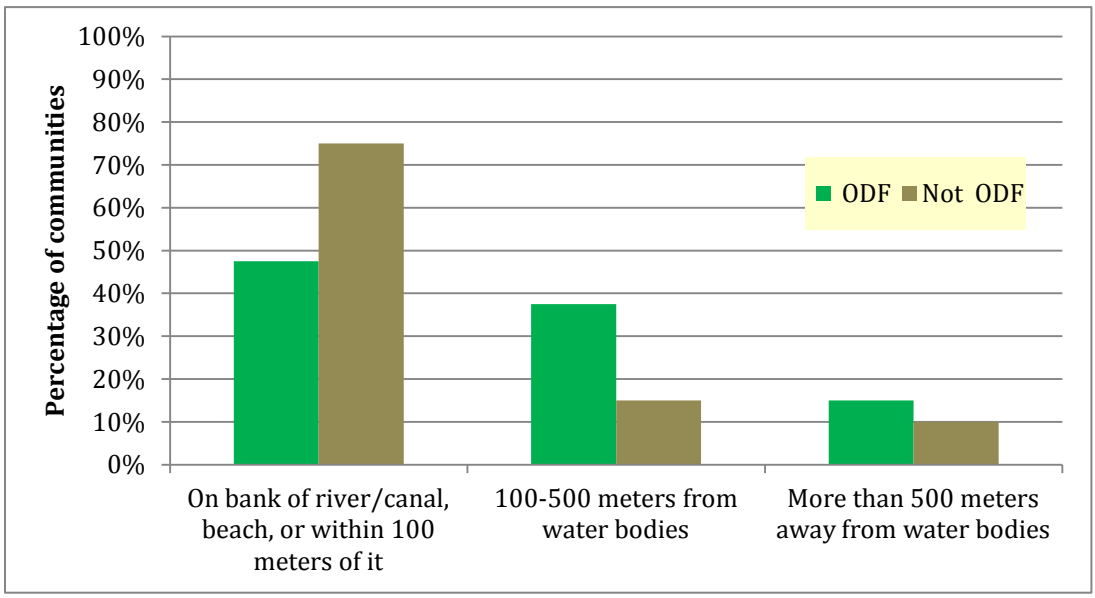


FIGURE 8: SAMPLE DISTRIBUTION BY COMMUNITY CATEGORY AND PROXIMITY TO WATER BODIES*



**Chi-square value = 6.797, df =2, Significant at .05 level. Communities close to water bodies significantly less likely to become ODF.*

3.3 Social Capital

The highest levels of social capital among all categories characterized QUICKLY ODF communities. They usually had enthusiastic and effective community leadership. They held the concerned leaders in high regard and trusted and followed their directions. In several districts, particularly those on Madura Island, when the religious leader exhorted communities to stop open defecation, his word was given the highest priority, even above that of village chief. Men, women, and youth in these communities already functioned in a variety of organized groups formed for social, religious, or financial purposes. As a result they were easy to mobilize for *gotong royong* (mutual self-help) movements, which is a well-known strategy of rural communities in Java for accomplishing goals that bring common benefits for all.

In comparison, LATE ODF communities had lower levels of social capital and greater expectations of receiving subsidized latrines. In LATE ODF communities, people responded more slowly to calls for behavior change than their counterparts in QUICKLY ODF communities. Those who lacked sanitation facilities aspired to higher quality, entry- level latrines and took longer to gather resources to obtain them. After triggering and follow up monitoring by village leaders, sanitation access grew gradually, at the convenience and discretion of the latrine-less households rather than in the rapid campaign mode that characterized progress in the QUICKLY ODF communities.

By their own admission, residents of many NOT ODF (both high and low coverage) communities described themselves as difficult to mobilize and that g*otong royong* was reportedly "difficult to organize for any purpose". Village chiefs or *dusun* heads wielded less influence over other residents in these communities. Reasons included lack of trust in corrupt village and *dusun* chiefs and a newly elected village chief lacking support of hamlets other than his own (Panbetes, *Sampang*; Modung Timur, *Bangkalan*).

Community leaders in Baduk (*Kediri*) and Karang Ayam Dusun 2 (*Blitar)* owned fish ponds over which they had constructed hanging latrines in order to feed their fish. They did not want people to stop defecating in their ponds. In other cases, community leaders were uninterested either because poor CLTS processes had failed to "ignite" them, or they had no interest in programs or projects that brought no subsidy packages (Nglawan/*Jombang,* Modung Timur/*Bangkalan*, Tambaksari/*Gresik*, Turi Turi/*Magetan*, Glindah Lor/*Gresik*, Banyumas/*Pamekasan*, and Wonosari/*Mojokerto*). In several of these communities defecating in a neighbor's latrine was also considered a taboo.

Apart from differences in selected physical features and inherent social characteristics, the LATE ODF, QUIKLY ODF, and NOT ODF (both high and low coverage) communities also differed greatly in terms of their triggering experiences and responses to triggering. These differences are presented in Chapter 6.

IV. Understanding Open Defecators and Sharers

Key Findings

- In general, East Java villagers have opportunities and the ability to change behavior (from open defecation to building and using latrines), but the motivation to change is weak.
- Open defecators and sharers are not differentiable in practice. Sharers continue to practice open defecation from time to time.
- Sharers and open defecators have different reasons for continuing with open defecation, and require different strategies for behavior change.

4.1 Overview

In the 40 NOT ODF communities the researchers sought out open defecator and sharer households and held separate focus group discussions with them, in order to understand the basis for their sanitation behaviors. In approximately half the communities, social maps were found showing households marked as *Miskin/Tidak mampu* (poor), *Kaya/mampu/Sejahteraa* (rich), and *Sedang* (in-between/average/middle class). Project facilitators had introduced welfare classification (see footnote in Chapter 2 for explanation*)* of community households as a monitoring tool along with social mapping. In communities where the classification was not available, the researchers facilitated a welfare classification exercise to identify socio-economic categories characteristics of the open defecator and sharers.

Table 1 summarizes the extent of open defecation (OD) in the community as reported by the open defecators. Table 2 shows the socio-economic classes of households that practice OD, along with primary OD sites. Table 3 summarizes the site preferences for open defecation.

TABLE 1: EXTENT OF OPEN DEFECATION PRACTICED

Community Category	Most/Many Households Practice Open Defecation	Only a Few Households Practice Open Defecation
NOT ODF—High coverage (*N*=20)	14 communities	6 communities
NOT ODF—Low coverage (*N*=20)	19 communities	1 community

Open defecation is widely practiced by the majority of households in NOT ODF communities regardless of their sanitation coverage. Over 60 percent of sample communities were located

on the banks of rivers or small streams where most households defecate into the water regularly, even when some households have latrines at home. Those living farther away from water bodies go to open pits, bamboo and banana groves behind homes, or to ravines on the village outskirts. Exceptions were in the two coastal fishing communities in which open defecators went to mangroves. All households of the coastal Tabugah community in *Pamekasan* district had contributed money and labor to build a raised walkway on stilts to approach the mangroves and defecate in the water – rather than using the money to build latrines.

TABLE 2: OPEN DEFECATION PRACTICE BY WELFARE CATEGORY

Community Category	**Welfare Categories of Majority of Open Defecators**
NOT ODF— High coverage	**All** (Rich, Middle and Poor)—2 communities (in swamp/ mangroves) **Middle and Poor**—10 communities (in river/canal) **Middle**—1 community (own fish pond) **Poor**—7 communities (open pits/crop fields/forest)
NOT ODF— Low coverage	**All** (Rich, Middle, Poor)—7 communities (river/canal /fish ponds) **Middle and Poor**—9 communities (Swamp/ river) **Middle**—1 community (own fish pond) **Poor**—3 communities (open pits)

TABLE 3: SITES USED FOR OPEN DEFECATION AS REPORTED BY OPEN DEFECATORS

Who in the Community Practices OD?	**River/ Canal**	**Fish Pond**	**Mangroves/ Swamp**	**Ravine/ Ditches**	**Bamboo Grove/ Open Pits/Crop Field/Plantation/ Forest**

Most/many households (*N*=33)	24	3	2	1	6
Only a few households (*N*=7)	2				5
Total*	**27**	**3**	**2**	**1**	**11**

**Totals may not add up to* N *as multiple sites are mentioned in some cases*

Except in the two fishing communities, livelihoods centered on farming one's own land, agricultural labor in paddy fields, or plantations of coffee, cocoa or fruits. People left home at dawn to work in fields or forests, where they defecated in irrigation canals or in the bushes. Exceptions were fishpond owners who farmed fish for a living and built hanging latrines over them to feed their fish. The researchers found these ponds also being used for washing dishes and clothes, and bathing.

Open pit latrines were found only in communities away from any surface water body. Open pit users are invariably the poorest households and less often the *Sedang* (middle class, in-between rich and poor classes) households. Open pit users are not happy with their facility. They think it is filthy and disgusting, and scary and unsafe for old people and children. But because the pits are located away from their homes—in the forest, plantations and bamboo groves—they feel it does not pollute their living environment. They would like to build more hygienic and smell-free pour-flush latrines, but feel it is too expensive, or water for flushing is scarce. The rich rarely use open pits, which are considered an indicator of poverty.

Open defecation however is not necessarily an indicator of poverty, particularly in riverbank communities where everyone, including rich households, washes and defecates in the river. No one drinks the river water, and the practice has high social acceptance. Additionally, many of those in the rich or middle class own fishponds where hanging latrines, available to all villagers, can be found. While fish farming was a major economic activity in three of the communities studied, reportedly, it was surprising to note that none of the fish farmed were consumed in the community. All the fish were exported for sale in nearby towns and cities.

4.2 Behavioral Determinants Related to Open Defecation

WSP has developed the SaniFOAM Framework (**F**ocus; **O**pportunity; **A**bility; **M**otivation) to analyze current sanitation behaviors, identify behavioral determinants, and apply this analysis

to the design of behavior change communication campaigns.[24] Researchers used this framework to help identify the behavioral determinants that contribute to open defecation. Sharers, who do not own latrines and use other people's latrines, were separately consulted about their reasons for continuing to share or wanting to change their

status.

Opportunity. Focus group participants in NOT ODF communities reported that supplies of sanitation materials and skilled masons were easily available in rural East Java. However, a majority of those surveyed reported that land to build upon and options for latrine types and materials were limited.

In East Java, where communities are densely populated, it is not customary to build latrines within homes. However, poor and middle-income classes often lack land outside the dwelling unit on which to build a latrine. The local markets and service providers offered only two standard designs for those who could afford to spend upwards of Rp.1,500,000 (US$163), reinforcing public impressions that sanitation facilities were unaffordable for the poor. There were also no options for payment other than paying the entire cost in cash at one time. Sanitation suppliers who offer more affordable design and material packages along with easier payment options find it easy to capture the latent demand among the untapped poorer segments of the market.

Ability. Reasons cited for not having a latrine and therefore continuing to defecate in the open included lack of land (mentioned in two communities) and a lack of money (mentioned in 12 communities). However, the same households reported owning assets, including:

- Television (reported in 33 focus groups)
- Motorbike (reported in 24 focus groups)
- Permanent house with brickwork walls, masonry floors, and tiled roofs (reported by 21 focus groups, with another 13 mentioning semi-permanent houses)
- Bicycle (reported in 15 focus groups)
- 1-3 heads of livestock (reported in 12 focus groups)
- Cell phones or paddy fields (reported in 4 focus groups each)

These findings indicate that those who defecate into water can afford to build latrines, since they own many other assets of much higher value than latrines. A basic pour-flush latrine of the type that consumers most prefer costs around Rp.1 million (US$110), less than a color television (Rp.500,000-1,000,000), permanent house (Rp 25 – 60 million), motorbike (Rp.4-15 million), for example. Payment for and acquisition of these assets were explored in the focus groups.

House building and renovations are generally paid for with surplus income at harvest time or with funds remitted by family members working in cities or other countries. Products such as a motorbike, television, or cell phone are bought on credit and paid for in monthly installments. Community members became aware of products though targeted promotion

[24] For further explanation, see Devine 2009.

and after seeing neighbors buy similar products. They were able to acquire desired products, even those that cost many times more than a latrine, when affordable financing options were available such as installment credit and deferred payments. These lessons need to be transferred to the market for sanitation goods and services.

Motivation. Research showed that a majority of open defecators are happy and comfortable with open defecation and feel no need to change this behavior. This finding applied especially to open defecation in rivers and canals.

Motivation to continue the practice abound when people are habituated to open defecation for generations, have easy access to perennial rivers and streams, live in a society where defecation into water bodies is considered normal way of life, and have many priorities other than sanitation competing for their limited economic resources.

Many of those interviewed believe that defecation into water is not only free of cost, but also pleasant, hygienic, and smell-free; they also fear that they cannot ease themselves unless they are squatting in water. Those who defecate in forests, bamboo groves, crop fields and pits located away from their homes are often complacent in the belief that these sites are at a sufficient distance and cannot pollute their living environment: The following quotes from focus groups illustrate prevalent beliefs:

> *"It is cleaner, more hygienic to defecate in rivers than in pit latrines."*

> *"Cemplungs (pit latrines) are filthy and smelly. I would be ashamed to own or use one."*

> *"Will never build a (pit) latrine at home – it will smell bad and attract flies, and cause complaints and fights with neighbors."*

> *"As long as the river is flowing, why do we need to build latrines? Better to use the money for children's education."*

> *"Better to work and earn rather than use the time to dig latrine pits."*

> *"When we work in fields and forests far from home, how can we come home to defecate?"*

A quarter of those participating in the focus groups also reported that they do not believe that their defecation practices can harm themselves or others. Reasons stated included:

"River/canal/sea carry the feces away from our homes, and our village remains clean"

"Fish eat up the feces"

"We have a clean water supply system, nobody drinks the river water."

"OD in rivers our normal, common practice for generations—has never caused any problems!"

"Open pits are in forests or far from homes, the smell does not reach and disturb neighbors in any way."

However, the focus group discussions revealed that motivation to stop open defecation can be awakened under certain conditions:

- In communities where rivers or canals dry up in the dry season exposing stinking feces, people are less satisfied with open defecation. This is especially anathema during the holy month of Ramadan.
- A majority of focus group participants agreed that OD harms themselves and others by polluting rivers, spreading disease, and spreading stench in the community. Causing harm or losses to others with one's own behavior is against the values of social harmony and responsibility to one's community. It may be condoned only if there are no other options open to the person causing the harm.
- Using open pits, even if far away from homes, provokes feelings of disgust. Old people and children are afraid of falling in and pits collapsing.
- Several focus groups mentioned religious taboos, since open defecation causes women to expose themselves to the public eye in ways considered sinful.

These motivations can be used to sharpen the focus of behavior change communication campaigns.

Sharers. It was clear that most sharers have not given up open defecation and continue to use others' latrines while also defecating in the open from time to time. They have discovered the convenience and comfort of latrine use, but have not been able to build one for themselves.

They find sharing on a regular basis embarrassing and use others' latrines only when open defecation is inconvenient or risky Thus sharers are not very satisfied with their current practice, whereas habitual open defecators, particularly those using water bodies, are generally happy with their practice. The discussions also clarified that the two categories require different strategies for behavior change

Sharing others' latrines does not come naturally to villagers. Sharer households were present in 14 out of 40 NOT ODF communities. Defecating in the neighbor's house is a taboo in several districts. Those who share are embarrassed and hesitate to ask this favor of neighbors. They report that sharing is done only occasionally, such as when sick, in bad weather, or at night when it is risky to go the river. They reported sharing on a regular basis only if: a) it is a relative's latrine rather than the neighbor's; b) the latrine is situated within the same family compound; or c) they had contributed or co-invested in building of the latrine. This is one solution adopted by those who want to build latrines but do not have land to build on.

Illustrative quotes from focus groups with Sharers:

> *"Better to defecate in rivers than to share someone else's latrine."*

> *"It is not in our culture to defecate in our neighbor's home."*

> *"If there is a queue at the neighbor's latrine, we go to the river."*

> *"It is embarrassing to go to a neighbor's house to defecate everyday—they also feel burdened."*

Sharers were already unhappy with their practice and emotional drivers such as shame, fear, disgust, etc. are not needed in order to change their behavior. According to them, the factors that could bring about behavior change from sharing to building and using own latrines are as follows, in terms of frequency of mentions:

- Information on options for low-cost latrines, including those that can be built within homes (reported from 14 communities)
- Co-investment with a relative to jointly build a latrine, particularly if they themselves have no land (reported from 13 communities)

- Arisans/ Soft loans/material credit from suppliers/ installment payment terms (reported from 11 communities)
- Community leadership support in terms of regulation to stop OD/*gotong royong/m*onitoring (reported from 8 communities)
- Subsidy (mentioned in 1 community)

4.3 Hygiene Awareness

Hygiene awareness was not a major study objective. Nevertheless, during data collection, researchers facilitated a participatory visualization exercise,[25] asking focus groups to trace fecal contamination transmission routes in the community and whether they could be blocked. Research showed that:

- The greatest majority identified a three-step transmission route from exposed feces through flies and food to mouths. River defecators also identified this route, although flies cannot access feces deposited under water.
- Except on one community, river defecators did not identify the transmission of fecal contamination through washing and bathing in a river where people defecate.
- The hand was identified as part of the contamination route only in connection with cleaning feces from an infant.
- In slightly more than half of focus groups conducted in the NOT ODF communities, participants could identify ways to block transmission of fecal contamination. Barriers to transmission identified most often were "defecating in latrines" and "covering food." Handwashing with soap, which is the most powerful preventive practice, was identified as a barrier in just six of the 40 NOT ODF communities.

The findings indicate critical gaps in people's hygiene awareness about how defecation into rivers affects the whole community, particularly when the river and water is also used for washing, bathing and cleaning of teeth. Since most East Java villagers have alternate safe water sources for drinking and rarely drink the river water, they feel that defecation into rivers is of no health consequence. CLTS triggering practices need to be tailored better to catalyze connections between local behaviors and their consequences.

[25] Contamination route diagramming, a PHAST (Participatory Hygiene and Sanitation Transformation) tool.

A hanging latrine on the pond next to a home (left). Another part of the pond is used to wash, bathe and wash dishes (right).

4.4 Strategies for Behavior Change

Most open defecation takes place in water. For the most part, this practice is not visible and does not smell. Thus, the usual CLTS change lever of *disgust* was not the most important motivator. Instead, *fear* and *shame* were the levers identified by open defecators in all NOT ODF communities. Motivations could include f*ear* of diseases, sinning, harming others by one's action, defiling one's community, accident and injury from going to the river at night/during rainstorms/animal attack, and risk for women from the same. S*hame* included being seen by others when defecating in the open, inability to offer a latrine to guests, and having to share a neighbor's latrine. Promoting the benefits of convenience, safety, and saving time by not having to queue up at neighbor's facilities can reinforce these drivers.

To these motivations the following enabling strategies and opportunities could be added:

- Community leadership support for change, through regulations, sanctions, monitoring, organizing *gotong royong*, network building with sanitation suppliers and sources of financing. This was reported from 30 out of 40 communities.
- Facilitation of soft loans or sanitation supplies and services at affordable rates—reported from 24 out of 40 communities.
- Information on more low-cost options and alternative materials to reduce cost—reported from 15 out of 40 communities.
- Subsidies were mentioned, but only in four communities.

4.5 School Sanitation and Hygiene Facilities

Although the project did not target school sanitation programs, the researchers observed 76 school facilities in 75 communities to check whether schools in triggered communities were equipped to support community commitments to stop open defecation.[26]

Schools were found to have one to two pour-flush water-seal latrines in every community visited. All latrines were accessible to students. All except two were functional and in use. Only 53 percent of the schools had separate facilities for boys and girls. The rest had common facilities for both. Access to school latrines was lowest in the NOT ODF-Low coverage communities, as concluded from the ratios of latrines to students. Surprisingly, access was lower in QUICKLY ODF communities than in the LATE ODF and NOT ODF-High coverage

[26] In five communities schools were closed for holidays and were not accessible. One of the 75 observed communities had two schools, thus 76 latrines were observed in total.

*Recommended for optimal use: ratio not exceeding 1 latrine per 30 students, as specified by Ministry of Education and Culture, Government of Indonesia

communities. Possibly the school sanitation situation has not received community attention in the hurry to improve household access figures (Table 4).

The school latrine-to-student ratio varied widely, from as low as 18 students per latrine in Ledokan Dusun 2 (QUICKLY ODF) in MAGETAN district, to 417 students per latrine in Panbetes (NOT ODF-Low coverage)in SAMPANG district. While recommended norm from the Ministry of Education and Culture is one latrine for 30 students, ratios were far higher in more than 90 percent of all school latrines observed, and all the latrines observed in some districts. When ratios are more than 50-55 students per latrine, it is likely that access for students is limited during school breaks and some open defecation around school premises is likely to occur.

TABLE 4: OBSERVED ACCESS TO SCHOOL LATRINES

School Latrines Observed in Different Community Types	Functional and in Use	Separate Latrines for Girls/Boys	Averaged Ratio:* Latrines Available for BOYS	Averaged Ratio:* Latrines Available for GIRLS
QUICKLY ODF (*N*=18)	18	12	1:119	1:118
LATE ODF (*N*=21)	21	9	1:91	1:89
NOT ODF—High Coverage (*N*=19)	19	13	1:89	1:83
NOT ODF—Low Coverage (*N*=18)	16	5	1:158	1:154
TOTAL (*N*=76)	**74**	**39 of 76**		

Handwashing facilities were found in 72 or 85 percent of the schools visited. Of these, 70 percent were constructed to wash hands (e.g., wash basins, standpipes and water storage facility/tank fitted with taps); the rest were simply buckets of water and mugs kept at suitable spots.

Schools that had handwashing facilities had between one and six handwashing stations. Schools observed in ODF communities had better handwashing facilities, as indicated in Table 5. All schools in QUICKLY ODF communities had handwashing facilities and almost all facilities had water available in them. Soap, however was available at less than half the schools. At the bottom of the list the NOT ODF-Low coverage communities had barely a third of the schools with handwashing facilities, only half of which had water, and soap was seen in only 1 out of the 18 schools observed.

TABLE 5: HANDWASHING FACILITIES IN SCHOOLS

No. of Schools Observed in Different Community Types	Schools with Handwashing Facility Available (%)	Facilities with Water Available (%)	Facilities with Soap Available (%)
Quickly ODF (*N*=18)	100	94	47
LATE ODF (*N*=21)	79	79	68

NOT ODF–High coverage (*N*=19)	72	94	44
Not ODF–Low coverage (*N*=18)	33	50	5

V. Access Gained and ODF: What is Achieved and Sustained?

Key Findings

- QUICKLY ODF communities represent the most efficient model worth replicating. These communities almost doubled their baseline household access from 52 percent to 97 percent and achieved access gains for 7,016 persons in less than two months. LATE ODF communities took four times as much time to achieve only half the access gains.
- NOT ODF communities took as long as 18 months to add only 8-20 percent additional household access.
- Communities did not always achieve ODF status at first verification. On an average, QUICKLY ODF communities had claimed ODF status and were verified as ODF within 46 days of triggering. Those that did not qualify at first verification averaged another 22 days to qualify with a re-verification.
- In contrast, LATE ODF communities claimed ODF status and were verified as ODF 171 days after triggering on average. Those that needed re-verification became ODF another 73 days later on average.
- The QUICKLY ODF communities, observed 4-28.5 months after being verified as ODF, remained ODF with no slippage backwards into Open Defecation, and with behavior monitoring and sanctions against violators applied by the communities. However, in one community out of 20, some latrines had become unsafe causing the community to be technically no longer ODF.
- Among the 20 LATE ODF communities, observed 1-25 months after ODF achievement, open defecation was continuing unchecked in 20 percent of the communities, as self-reported.
- Once verified communities declared as ODF are not being re-checked by local government agencies for sustainability of behaviour change.

5.1 Access Gained and Time Taken to Become ODF

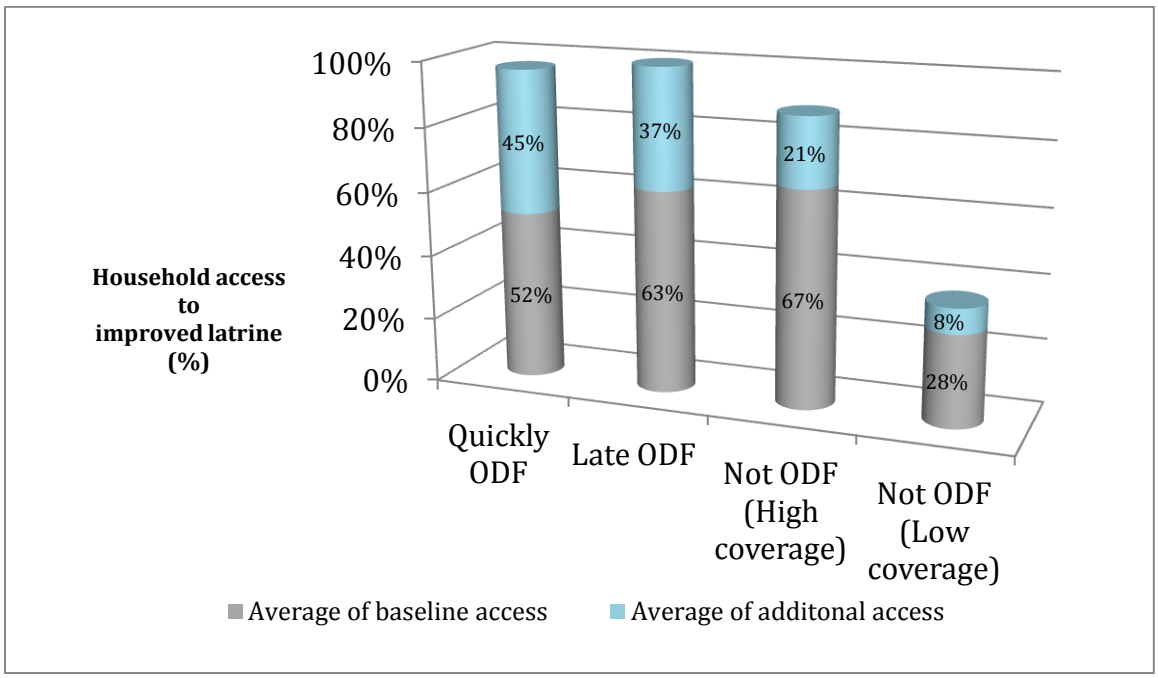
Although NOT ODF communities had records of baseline access and some had social maps, progress updates were not regularly recorded by sanitation committees. Researchers checked recorded data and updated them when necessary through field observations and checking records at lower levels, i.e. with neighborhood chiefs, who keep detailed records of many aspects of all member households, including latrine ownership and latrine type. The results, averaged for 20 communities in each category, are presented in Figures 9 and 10.[27] The total

[27] The percentage in Figure 9 adds up to only 97 instead of 100 percent in the QUICKLY ODF bar because two out of 20 communities did not have 100 percent ownership of improved household facilities.

number of persons who gained access to improved sanitation in each community category appears in Figure 10.

Figures 9 and 10 show that the largest gains in access have happened in the QUICKLY ODF category. Table 6 shows that they also achieved these gains fastest of all. Both QUICKLY ODF and LATE ODF communities recorded much higher proportions of households gaining access, in contrast to the NOT ODF communities. The NOT ODF – Low coverage group achieved the smallest percentage of gain, having started from the lowest (28 percent) baseline access.

FIGURE 9: PERCENTAGE INCREASE IN HOUSEHOLD ACCESS TO IMPROVED SANITATION IN FOUR TYPES OF COMMUNITIES IN 20 DISTRICTS



In terms of persons gaining access, the QUICKLY ODF communities recorded seven times as much access gain as the NOT ODF-low coverage communities. While access gains in NOT ODF-high coverage group compares well with the two ODF community groups, the gains were far slower. As Table 6 clarifies, QUICKLY ODF communities almost doubled their baseline household access and achieved access gains for 7,016 persons in less than two months. In comparison, LATE ODF communities took nearly 8 months to achieve access gains for about half that many households and persons. NOT ODF communities took as long as 18 months to add only 8-20 percent additional household access, and for as few as 313 to 1,341 additional persons. This finding underscores the importance of doing evidence-based learning in real time and using it to improving implementation efficiency.

FIGURE 10: TOTAL PERSONS WHO GAINED ACCESS TO IMPROVED SANITATION IN FOUR TYPES OF COMMUNITIES IN 20 DISTRICTS

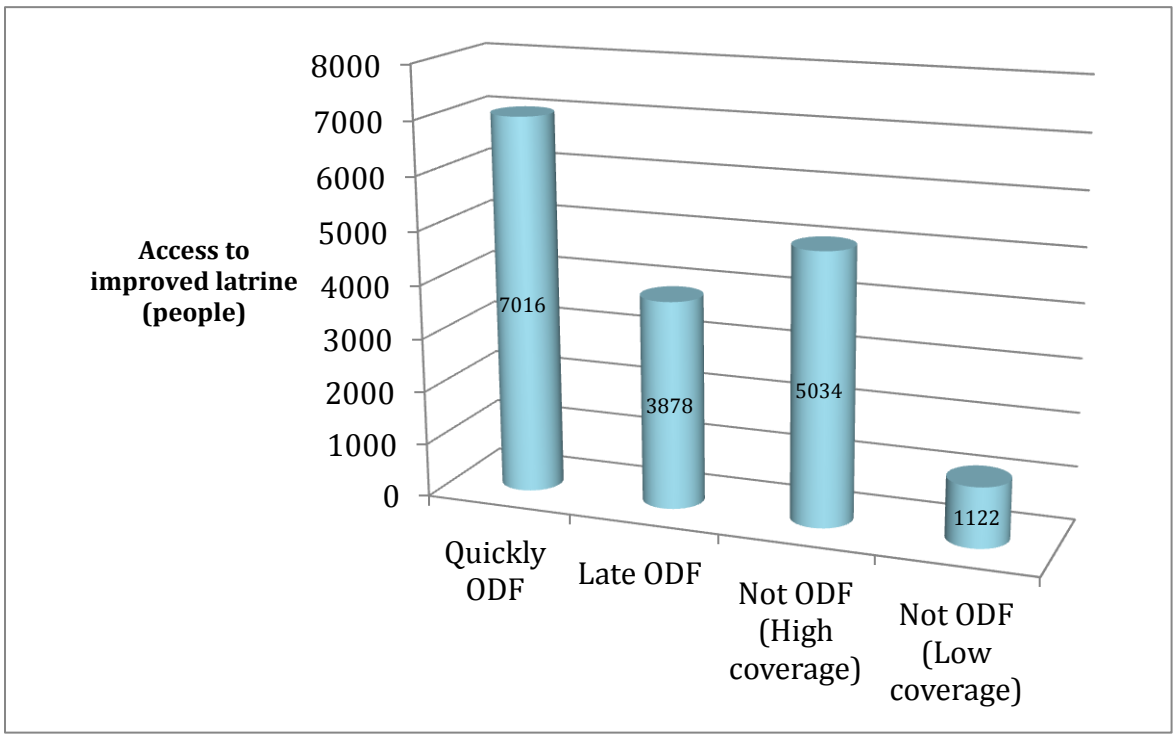


TABLE 6: SUMMARY OF ACCESS GAINED AND TIME TAKEN

Community Type	Average Time to Become ODF	Average % Increase in Household Access to Improved Sanitation	Additional House-holds that Gained Access	Additional Persons that Gained Access
QUICKLY ODF	**57 days**	**52→97**	**1,916**	**7,016**
LATE ODF	230 days	63→100	1,160	3,878
	Time since triggering			
NOT ODF - High coverage	555 days	67→88	1,341	5,034
NOT ODF – Low coverage	534 days	28→36	313	1,112

Total			**4,727 households**	**17,040 persons**

When communities first claim to have become ODF, they are not always found to be so. This finding should be taken positively, as it indicates that the ODF verification process is not a ritualistic formality but has some rigor and transparency.

At the first verification, 12 out of 20 QUICKLY ODF communities did not satisfy all criteria for ODF and requested a re-verification after having addressed the shortcomings. They took 22 additional days on average to be re-verified as ODF. The remaining eight claimed ODF status and were verified as ODF within 46 days of triggering. The average thus worked out to 57 days from triggering to ODF for the group of QUICKLY ODF communities (see Table 7). LATE ODF communities took much longer. They averaged 171 days from triggering to the first verification. 15 out of 20 LATE ODF communities needed a second round and took 73 additional days. Community effort and mobilization for change was weaker in the LATE ODF communities, a finding confirmed by the villagers. There was also a greater desire to wait till they could afford the type of facility that they really wanted, rather than take immediate action to stop open defecation. The urgency to change was missing.

TABLE 7: TIME TAKEN FROM TRIGGERING TO VERIFICATION AND ODF DECLARATION

Community Type	Average Number of Days from Triggering to Verification	Average Number of Days from First Verification to ODF Achievement
QUICKLY ODF	57	22
LATE ODF	171	73

5.2 Is ODF Status Sustained?

To investigate issues of sustainability of ODF status and slippage, researchers observed household facilities and community environs, checked latrine ownership records, and probed the subject in focus group discussions.

Of the 20 QUICKLY ODF communities, 18 had remained ODF some 4–28 months after being declared ODF, i.e., improved latrine ownership and usage was 100 percent in the 18 communities. The remaining two communities were found to have 80 percent and 60 percent improved latrine ownership. However, actual slippage had happened in only one community, where latrines had become unsafe when pit covers were damaged and not replaced. The action research activity resulted in a commitment to replace lost pit covers. The second community with 60 percent improved latrine ownership, as explained earlier, was due to 40 percent of

improved latrines in the community being co-owned, jointly constructed, used, and maintained by groups of three to four households each.

All 20 QUICKLY ODF communities continued to monitor people's behavior and had mechanisms to detect OD, such as early morning riverside watch and rewards for spotters of anyone defecating in the open, in one case even photographing people in action. Community-instituted sanctions against OD included naming and shaming in various ways, monetary or material fines, and social service penalties. More details about the means and methods are presented in Chapter 5, under Community Monitoring.

In the 20 LATE ODF communities, the findings are not really "slippage". Research revealed that 20 percent of these communities had never really become ODF in the first place. In four LATE ODF communities, even though all households had acquired improved sanitation facilities and used them at home, open defecation was continuing in rivers where people went for washing and bathing every day. In these four communities, sanctions against open defecation were agreed to but community members report that these sanctions were rarely enforced. Sanitation behavior was not being monitored by a third of the LATE ODF communities. The ODF verification process had checked for and found 100 percent ownership and usage of improved sanitation, but had failed to capture the fact that people had continued defecation into rivers despite the availability of improved sanitation.

All of the communities declared ODF in the sample reported that local government agencies are no longer monitoring them. Puskesmas staff members, such as a sanitarian and a *Bidan Desa* (trained midwife), usually monitor sanitation progress with help from village level volunteers from various programs. They had been monitoring communities after triggering, but have stopped once they were declared ODF. There are no systems for periodic re-checking of ODF status thereafter. Communities have the capacity to sustain their ODF status, but do not have any incentives to do so, at present. As the experience in Dusun Ledok suggests (see Box 3, in Chapter 3), the sustainability of ODF communities is not guaranteed by a declaration of ODF. Without continued monitoring, community members can inadvertently slip into unsafe practices.

5.3 Time Lags between ODF Achievement and ODF Declaration

An unexpected research finding was a long time lag between achieving ODF status through independent verification and formal declaration of ODF. After achieving ODF status within 46 days of triggering, QUICKLY ODF communities had to wait up to five months before they were officially declared ODF. LATE ODF communities also had long waits (see Table 8).

TABLE 8: TIME TAKEN FROM TRIGGERING TO VERIFICATION AND ODF DECLARATION

Community Type	Average Number of Days from Triggering to Verification	Average Number of Days from ODF Achievement to ODF Declaration
QUICKLY ODF	57	150
LATE ODF	171	111

This anomaly is reportedly due to bureaucratic reasons. The project has attracted media attention for local sanitation issues. These issues have gained political importance now that district sanitation program performance is a criterion for the JPIP governance awards (see footnote 13). Consequently, *bupatis* (district heads or regents) and *camats* (sub-district heads) have begun to publicize ODF achievements and attend public ceremonies to formally declare communities, whole villages, and sub-districts as ODF.

These functions imply costs for both the community and local government. As a result, local officials opt to wait until they have a cluster of communities to declare ODF, making a more newsworthy event. The trend does not augur well for community-led movements like CLTS. For communities, the biggest reward for their collective effort is being recognized by outsiders and the pride at achieving ODF status without external assistance. It can be disempowering and disappointing to have to wait for months for that recognition after having worked hard to achieve ODF status within weeks of triggering.

To maintain community motivation, immediate and tangible forms of public recognition can be provided as soon as communities are verified ODF and without placing economic burdens on the community concerned. The study found examples of public boards that the community puts up, bearing the Health Ministry logo certifying their ODF status verified by the District Health Office. This helps spread the word and spark competitive action in neighboring communities, accelerating horizontal spread of the change movement.

VI. Factors Influencing Demand Generation and Sustainable Behavior Change

Key Findings

- The CLTS triggering process for generating demand for behavior change was of the highest quality in the QUICKLY ODF communities. LATE ODF communities experienced a process of lower quality. NOT ODF communities received the poorest quality triggering of all, with 10 percent not experiencing any of the usual CLTS triggering tools.
- All QUICKLY ODF communities had
    - Triggered all age-sex-socio-economic groups in communities;
    - Made follow up plans for self help;
    - Not received external subsidies; and
    - Continued monitoring behavior after ODF declaration
- The majority of them had also
    - Experienced three or more CLTS tools during triggering (70 percent);
    - Followed up initial triggering through multiple events/channels to reinforce collective disgust, shame, and fear first generated during triggering (55 percent);
    - Formed sanitation action committees/*gotong royong* groups following triggering (65 percent); and
    - Made collective commitments to become ODF within three days to two months of triggering (95 percent).
- Failure to achieve ODF outcomes was not the result of poor quality of CLTS triggering *alone.* A range of additional factors worked in combinations to halt or delay progress such as: nearness of flowing water bodies, local livelihoods-related open defecation, history and expectations of receiving subsidies, and availability and affordability of sanitation improvement options of the kind that the community members considered worth buying.

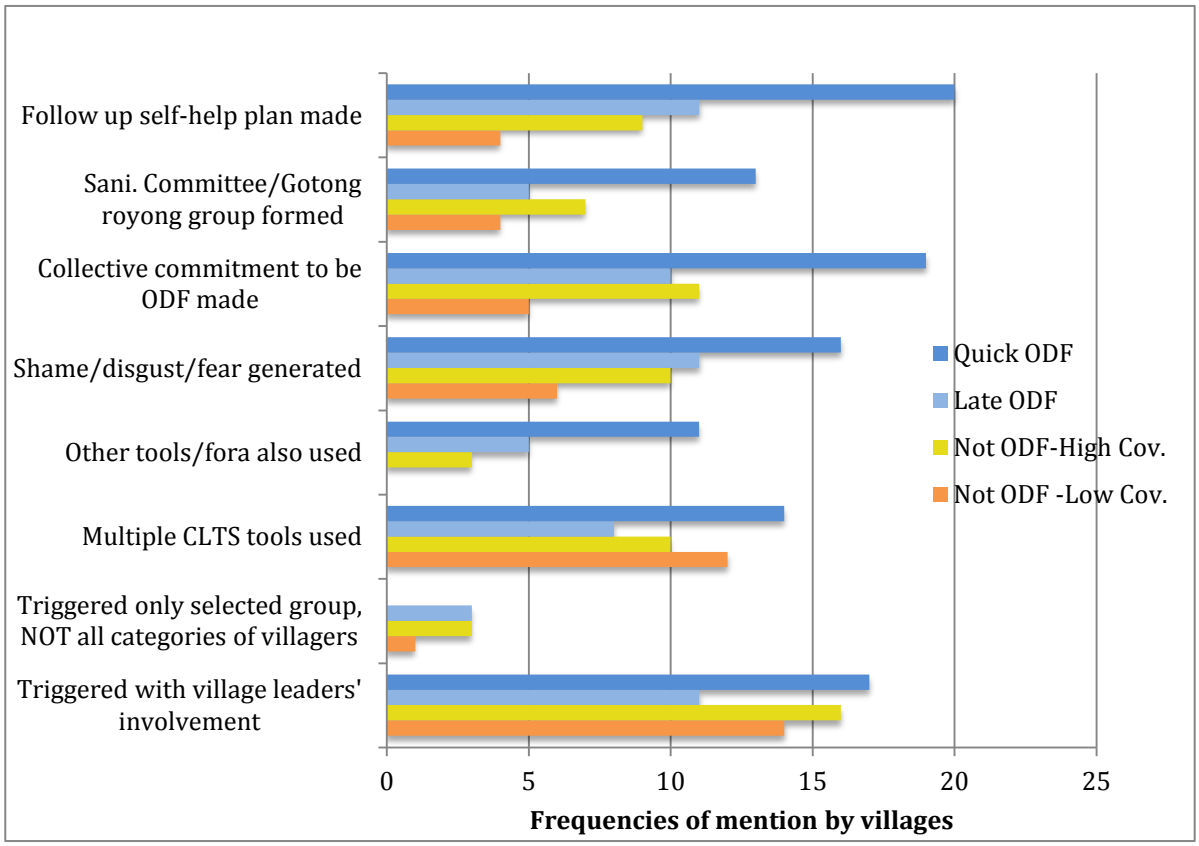
6.1 Triggering Process and Responses in ODF and NOT ODF Communities

Responses from ODF and NOT ODF communities are aggregated in Figure 11. The bars in the chart are arranged chronologically, starting with the triggering event at the bottom, and the consequences unfolding upwards. The progression from the bottom to the top of the chart represents the process milestones that could be used to evaluate progress after triggering. When triggering is successful, all the steps included in Figure 11 occur within the first week of the triggering event.

Figure 11 clarifies that a number of initial steps in CLTS triggering were carried out well in all 20 QUICKLY ODF communities—and that this was not the case in the other three sets of communities. These steps include:

- Triggering with the involvement of the village leadership;
- Triggering all age-sex groups of the community for better communitywide mobilization; and
- Proper use of multiple CLTS tools to build up both individual urgency and collective pressure for change.

FIGURE 11: PROCESS HISTORY COMPARISON (TRIGGERING)



The key effects of triggering—strong feelings of shame and disgust at current OD practices—were generated by the triggering process in almost all communities that later became QUICKLY ODF. In some communities, fear was an added trigger: open defecation was likened to sinning since it pollutes the waters that others use to wash before praying.

All QUICKLY ODF communities experienced four or more of the following CLTS tools, reasonably well-facilitated, based on recalled accounts:

- Mapping defecation practices
- Transect walk to visit defecation sites (walk of shame)
- Simulation of water contamination with feces
- Tracing fecal contamination routes active in the community
- Calculation of daily weight/volume of feces discharged into community environments.

In 95 percent of the QUICKLY ODF communities, the triggering resulted in a spontaneous collective commitment to immediately eliminate the "now suddenly unbearable" practice of open defecation, and the setting of a date within the next three days to two months by when they would achieve that target. A community sanitation committee was formed in 65 percent of QUICKLY ODF communities by the end of the triggering process; self-help plans on how OD would be eliminated by the target date were formulated in 100 percent of communities.

The plans being based entirely on self-help is a key indicator that the QUICKLY ODF communities were not willing to wait for any kind of external assistance or subsidies. The plans were also immediately put into action, as evident in the immediate post-triggering period, when other community forums and events picked up and began reinforcing the triggering appeals in weekly religious discourses, Friday prayers at mosques, saving and credit groups (arisan) meetings, women's welfare movement (PKK) meetings, farmers' credit and savings group meetings, local schools, village meetings and monthly *Posyandus* (growth monitoring and health service posts, jointly managed by communities and Puskesmas staff).

In contrast, 10-15 percent of the LATE ODF and NOT ODF communities experienced selective triggering of only the leaders or community volunteers, only the latrine-less households, only the women, or had less than 15 people attended a triggering event. Triggering selective age-sex-social groups usually led to no further action. The poor were sometimes singled out for triggering as they were the open defecators—and this did not help either. Selective triggering hindered a communitywide build up of momentum for change.

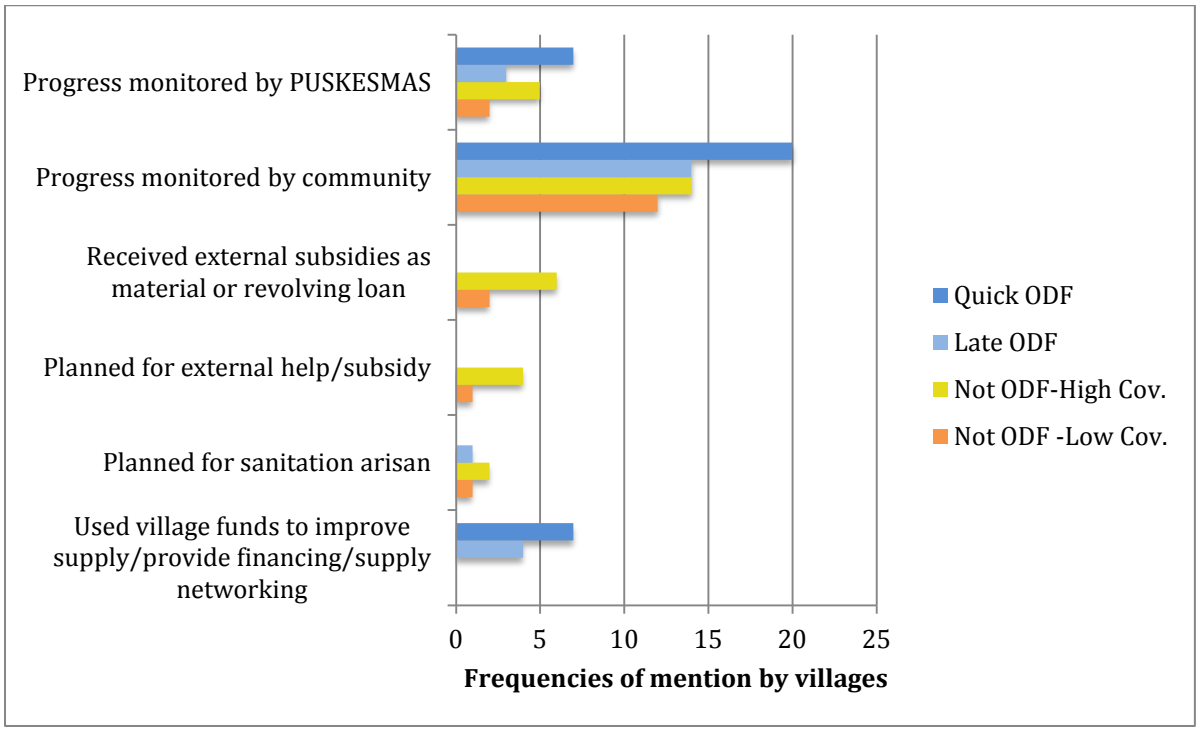
Furthermore, multiple CLTS tools were not used in 20 percent LATE ODF communities and 15 percent of all NOT ODF communities, which weakened their progressive emotional impact. CLTS tools were also not reinforced through other channels and forums in the NOT ODF communities. The result was that people's emotional levers of shame, disgust and fear were activated in only half the LATE ODF and NOT ODF-High coverage communities, and only a quarter of the NOT ODF-Low coverage communities. This too did not happen in all levels and groups of community members, leaving them in a "not really ignited" state.

Inevitably, collective commitments to become ODF did not happen in half the cases. The remaining 50 percent of LATE ODF communities set targets of becoming ODF within three months. The NOT ODF communities that did set targets did so with targets of 3-12 months

later. Less than a quarter NOT ODF-Low coverage communities established action committees. Half or fewer NOT ODF communities made follow-up plans.

Figure 12 illustrates that an important characteristic that set the NOT ODF group apart was the kinds of plans they made. Forty-five percent of NOT ODF communities did not make self-help plans. They prepared proposals requesting infrastructure projects to build free communal latrines (see Figure 12). A fifth of these communities had received subsidized latrines from various poverty alleviation programs in the past, which made them firm believers that they would get more such freebies and need not spend their own funds to get latrines. They also started latrine *arisans* whereby a group of households contributed small sums every week or month, and by turns each household received the total amount collected, to enable them to receive a lump sum amount that they may find difficult to otherwise save up. While *arisans* are useful in principle, they slowed down the rate of growth of sanitation access as members of an *arisan* needed to wait weeks or even months to collect enough money to pay for a latrine.

FIGURE 12: PROCESS HISTORY COMPARISON (POST TRIGGERING)



QUICKLY ODF communities were a complete contrast. They were aware that subsidized latrine packages are provided by certain government programs, but did not themselves have a history of having received subsidized latrines from external sources. They did not want to wait for external help. They were not even willing to start *arisans* for funding household latrines because "*arisans are too slow.*" Their self-help plans included both *gotong royong* as well as using village development funds to improve the supply of sanitation improvement services of the kind desired by community consumers. This took various forms such as advancing village funds for bulk buying of materials or bulk orders to local masons, while allowing consumers to pay back to the village council or service providers in installments or at after-harvest. In 10 percent of the QUICKLY ODF communities the village chief had provided free drop hole covers and cement pans from village development funds to families that were holding up progress to ODF status. This hastened the ODF status achievement but probably short-circuited the emotional triggering which helps sustain behavioral change. People in these communities reported they "do not remember the triggering process."

6.2 How the Triggering Tools Were Used

Examination of the communities' triggering process experience further reveals that the QUICKLY ODF and LATE ODF communities experienced four or more CLTS triggering tools more often than the NOT ODF communities. The NOT ODF groups experienced mainly Social Mapping. Clearly, these differences affected the quality of the change-igniting process (see Table 9).

TABLE 9: TOOLS USED FOR TRIGGERING IN THE FOUR TYPES OF COMMUNITIES

Triggering Process Experience	Frequencies Reported in the Four Community Categories			
	NOT ODF– Low Coverage Communities (*N*=20)	**NOT ODF– High Coverage Communities (*N*=20)**	**LATE ODF Communities (*N*=20)**	**QUICKLY ODF Communities (*N*=20)**
4-5 CLTS tools used*	5	4	7	10
2-3 CLTS tools used	8	5	3	4
1 tool only/Map only/Mapping on paper	6	9	5	2
No CLTS tools used	0	1	3	2
Community members "can't remember process"	1	1	2	2
Total	20	20	20	20

**Social mapping/Transect walk of shame/Water contamination simulation/Contamination route tracing/Feces volume calculation*

CLTS tools are meant to be used in a sequence, which helps to progressively build up collective realization of the repugnant consequences of open defecation. Those who experience their proper use are able to recall the triggering process and the emotions they evoked in vivid detail. Not using these tools may be a reflection of the quality of training received by CLTS facilitators or simply a desire to use short cuts. Social mapping produces a tangible output which can be checked by others, while the other tools do not. A facilitator hard-pressed for time, lacking adequate resources for field work, or under-confident of his/her facilitation skills may therefore skip the use of tools other than the social map, and do it with a few community

representatives on a sheet of paper, rather than on the ground with active participation of a large community group.

Of the 80 sample communities, 57 were triggered by project-trained facilitators. Thirty-two (56 percent) became ODF. Twenty-three were triggered by other facilitators, of which eight (35 percent) became ODF. Exploration of the process history revealed major differences between triggering processes and use of CLTS tools by the two groups of facilitators, as seen in Table 10.

Local government functionaries were trained by the project's Resource Agency personnel in each district. They were trained on-the-job, through actual CLTS triggering in communities during the project period from November 2007 onward. The other facilitators were provincial and district level health office employees who had been trained by the Health Ministry initially in the WSLIC 2 project during 2005-2006, or later by specific district government health offices in East Java.

The facilitators trained by resource agencies tended to use multiple and well-known CLTS triggering tools most of the time, while the other facilitator often relied upon a single tool, i.e., social mapping. The CLTS tools are not the only means to ignite change, and depending on the facilitators' skills, other methods may work well. However, the process history exploration indicates that the non-project-trained facilitators did not substitute CLTS tools with other methods. They simply cut the process short by excluding other CLTS tools and used only social mapping, and it was not used in empowering ways (see Table 11). Over a third of the communities they had triggered did not remember much about the process.

TABLE 10: USE OF CLTS TOOLS BY DIFFERENT GROUPS OF FACILITATORS

Triggering Process Experience	Frequencies Reported	
	In 57 Communities Triggered by Project-Trained Facilitators	**In 23 Communities Triggered by other Facilitators**
Three or more CLTS tools used	39	1
Two CLTS tools used	10	2
One tool only/Map only/Map on paper	5	10
No CLTS tools used	1	3
Community members "can't remember process"	2	7
Total communities triggered	**57** (32 became ODF)	**23** (8 became ODF**)**

The researchers traced timelines and descriptive histories of the process with community groups. However it was not possible to objectively evaluate the use of each tool based only on recall. One exception was social mapping, which was retained as a record, and used for monitoring. From an examination of social maps available in communities visited and discussions with those who kept and updated them, a summary was made (see Table 11). It indicates the quality of the processes in the ODF and Not ODF communities. The data indicate that community-empowering social mapping experiences are associated with ODF achievement, and vice-versa.

TABLE 11: ODF AND NOT ODF COMMUNITIES' SOCIAL MAPPING HISTORY

Social Mapping Practices Reported	Reported Frequencies	
	ODF Communities *N*=40	NOT ODF Communities *N*=40
<u>Community empowering practices</u>		
Defecation practices mapping done publicly on the ground during triggering	30	20
Map transferred to paper later by community group	20	8
Map contains information on welfare class of households, ownership of latrines differentiated as improved/unimproved OR existing/new	25	6

construction.		
Map used by community for action planning during and after triggering	20	4
Map kept and used in community for monitoring progress	18	3
Map displayed in community and updated periodically by community members	18	1
Community disempowering practices		
Social map not available (never done/lost/damaged)	10	32
Mapping done on ground during triggering but not transferred to paper/facilitator did not explain its use for monitoring	6	22
Social map made but taken away by Sanitarian/Bidan/Puskesmas/Promkes	5	4
Map made only on paper/only by community leaders or village cadres	5	12
Leaders/Puskesmas, Staff/Kecamatan team don't encourage mapping because they think mapping is too difficult for community OR not necessary because they monitor progress anyway, using home visits.	10	15

6.3 Progress Monitoring—Internal and External

Less than half of all categories of the communities reported follow-up and monitoring of progress by local government agencies—usually the Bidan Desa and the Sanitarian, both Puskesmas staff. The NOT ODF-Low coverage communities were practically left alone after triggering, as only two out of the 20 had had any progress monitoring by local government functionaries. All QUICKLY ODF communities monitored their own progress, while only 60-70 percent of the other categories did so. Community monitoring was of markedly higher quality in the ODF communities

TABLE 12: NOT ODF COMMUNITIES LACK INTERNAL AND EXTERNAL MONITORING

Existing Monitoring Practices	**QUICKLY ODF *N*=20**	**LATE ODF *N*=20**	**NOT ODF (High cov.) *N*=20**	**NOT ODF (Low cov.) *N*=20**
No monitoring since ODF/No monitoring happening now	**5**	**3**	**4**	**9**

Who monitors ?				
Kader/Committee with or without Bidan or Sanitarian	9	8	4	5
Natural Leader/Ketua RT/Kepala Dusun with Sanitation Committee	10	6	8	6
Jumantik (insecticide sprayer)	3	3	1	3
Tools/methods used:				
Written records/formats	8	7	1	
Home visits	8	7	1	
Posyandu visits, Cheap rice/fuel (sembako) collection/RW meetings	5	3	2	
Social map/ Photo of new latrines/sticker on house wall	8	10	1	
Morning watch at river bank	2			1
Action if someone caught open defecating				
Reminders	5	6	5	6
Reprimands from leaders	4	5	5	1
Sanctions: e.g., public shaming/OD spotter given reward/Deny OD-er cheap rice and official documents/Fines for OD	**6**	**6**		
Community inaction—"Let them carry on OD"	**0**	**0**	**8**	**13**

Table 12 shows that no monitoring was happening at the time of this study in 40 percent of the ODF communities since they had become ODF. No monitoring of progress was happening in 65 percent of the NOT ODF communities. Where it was happening, local government monitoring generally took the form of Puskesmas staff (Sanitarian) periodically collecting new latrine construction data from Bidan Desas or Desa Siaga (Health program) volunteers resident in the community, and verifying it with field observations. In the absence of a Sanitarian, the anti-malarial insecticide sprayer was given the task of collecting monitoring data. All of these efforts monitored nothing more than new latrines built, and the type of latrine (permanent or semi-permanent). Data collection was done every one to three months in different districts.

Community monitoring was done more frequently, every week or fortnight before achieving ODF, and thereafter less often. Neighborhood chiefs (RTs) and Natural Leaders monitored progress of access to improved sanitation regularly and reported to the Kepala Dusun (hamlet chief) and the Sanitation Committee, who in turn provided monitoring data regularly to the

Kepala Desa (village chief). NOT ODF communities were less monitored in general, both by the Puskesmas and by the communities themselves.

Seventy-five to 90 percent of QUICKLY and LATE ODF communities used a variety of tools and methods to keep monitoring records. Frequent home visits by neighborhood and hamlet chiefs and Sanitation Committee members repeatedly exhorted the latrine-less households until they were shamed into building and using their own facilities. Data from home visits was recorded in registers by names and numbers of households by neighborhood chiefs, and transferred to social maps by sanitation committee members. Photos of newly constructed latrines were put up in the village offices. Some communities were found to be marking homes having improved latrines with colored stickers. Every month when poor households collect their sembako (government subsidized grains, oil and kerosene) they were asked to report their ownership of sanitation facilities. Posyandus were used to check latrine ownership of mothers bringing babies for weighing and health services. In contrast, the NOT ODF communities kept no monitoring records, written or otherwise. And, perhaps most importantly, they monitored only latrines if at all, never behavior. Focus group discussions in more than half the NOT ODF communities found an attitude of complete tolerance of open defecation. NOT ODF communities had not instituted any kinds of sanctions against open defecation, anywhere.

Fifty to 60 percent of QUICKLY ODF communities tracked behavior, rewarded spotters of open defecation, used reminders and reprimands with anyone found practicing open defecation, and used sanctions of various kinds against them. Ten percent of QUICKLY ODF communities had set up early morning watch systems on their riverbanks to detect open defecation by anyone. People caught at open defecation were made to pay fines in cash or construction materials, or were required to provide unpaid labor for community service. Their photos were put up over the television in the village office where everyone came to watch. They were denied their share of the month's subsidized rice, or the village chief refused them official documents that they needed for seeking jobs or registering marriages.

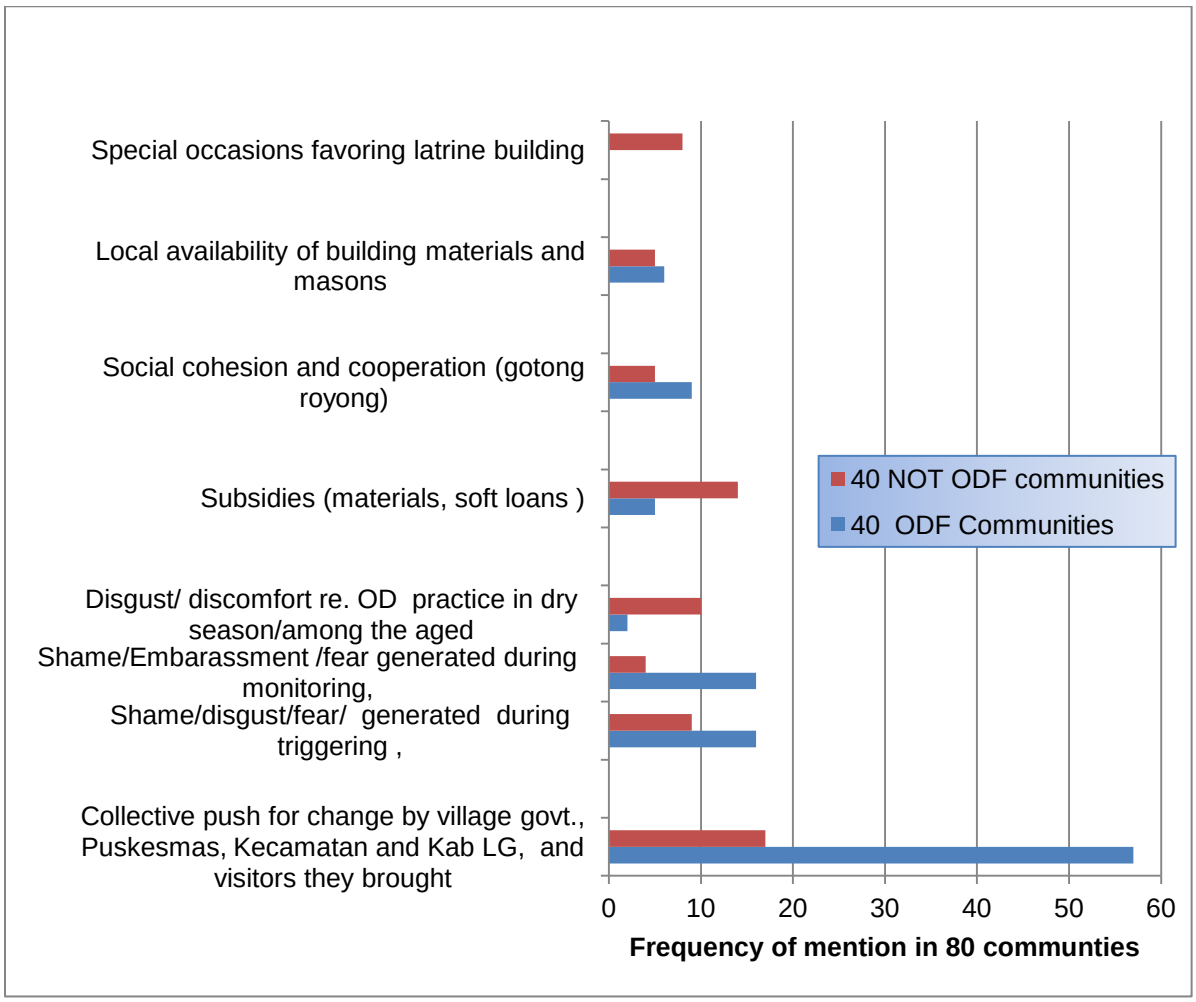
6.4 What Helps ODF Achievement—Community View

Community focus groups explored men and women's perceptions based on their experience, about what had helped or hindered their progress towards becoming ODF. Figure 13 shows an aggregation of the open-ended investigation results of what helped.

Opinions about what helped were not the same in ODF and NOT ODF communities. According to ODF communities, the most important facilitating factor was the collective and coordinated push for change by forces both within and external to the communities. In communities that became ODF, mobilization for change by formal and informal leaders of the communities was synchronized with and supported by the local community health centers, and sub-district and district government agencies. The appreciation of their efforts to become ODF by outsiders, particularly by visitors brought by district Health offices had reportedly been a catalyzer of rapid change. The visitors included WSP personnel, visitors from other countries and other

external aid agencies in addition to the district Regent and national government officials. The NOT ODF communities reported the same facilitating factor, but far fewer times. The second most important helping factor reported was the activation of people's emotional triggers (shame, disgust, fear) associated with open defecation. ODF communities reported this twice as often as did the NOT ODF ones. In ODF communities the same triggers were repeatedly reinforced twice as often through post-triggering mobilization and monitoring activities. Evidently, NOT ODF communities experienced ignition far less often. *Gotong royong* to help all households build latrines was also rarely reported from NOT ODF communities. According to more than a third NOT ODF communities, subsidies help ODF achievement. However, they were the ones that had failed to become ODF despite having received subsidies. QUICKLY ODF communities had not received subsidies, but two out of 20 LATE ODF communities had.

FIGURE 13: WHAT HELPED COLLECTIVE BEHAVIOUR CHANGE—VILLAGERS OPINIONS*



**Conclusions reached at 80 focus groups have been aggregated here. A few themes were recurring in the focus groups in many communities, and they have been visually highlighted here. The factors mentioned by 10 or more communities in the Figures 13 and 14 are more meaningful, as they represent the views of at least a quarter of each sub-sample group.*

NOT ODF communities reported three factors that could serve as opportunities to improve the effectiveness of triggering.

- Rural households in East Java often renovate their homes and specifically add latrines just before a family event is to be celebrated. It is a matter of pride and prestige to be able to offer the convenience of a modern, clean, smell-free household latrine to houseguests and relatives expected during family events.
- The dry season makes latrine building attractive in communities where streams or canals used for OD dry up and start stinking. However, in such situations the sanitation options promoted should be able to offer smell-free facilities that can be kept clean with the extent of water available during the dry period.
- The presence of aged and less mobile family members was another reason for households to invest in building household facilities.

Twelve of the 40 NOT ODF communities cited the availability of subsidized latrine materials or soft loans as '*a factor that helps ODF achievement,'* while only 5 of the 40 ODF communities did so. Interestingly, 14 communities out of 80 also identified '*hope/expectation for subsidy*' as an inhibiting factor for progress to ODF, and the 14 were equally distributed in the ODF and NOT ODF categories. (see Figure 14). Although expectations of subsidies were encountered in all communities, the ODF communities were able to overcome them through the strength of the collective desire generated for stopping open defecation. The CLTS process quality was higher in the communities that became ODF, leading to more effective "ignition of change." Progress after triggering was also influenced by the degree of ignition achieved.

However, good CLTS triggering is not a complete guarantee of progress to ODF, for reasons explained in the next section.

6.5 What Hindered ODF Achievement—Community View

Figure 14 shows that the highest number of focus groups reported that the most important factor preventing progress towards ODF status is a marked preference for open defecation in flowing water among rural populations. This preference is far stronger in NOT ODF communities, where people also largely believe that latrines discharging directly into rivers do not harm anyone. People in rural East Java do not defecate into rivers, streams or canals because they do not have latrines. They sometimes do so despite having latrines at home.

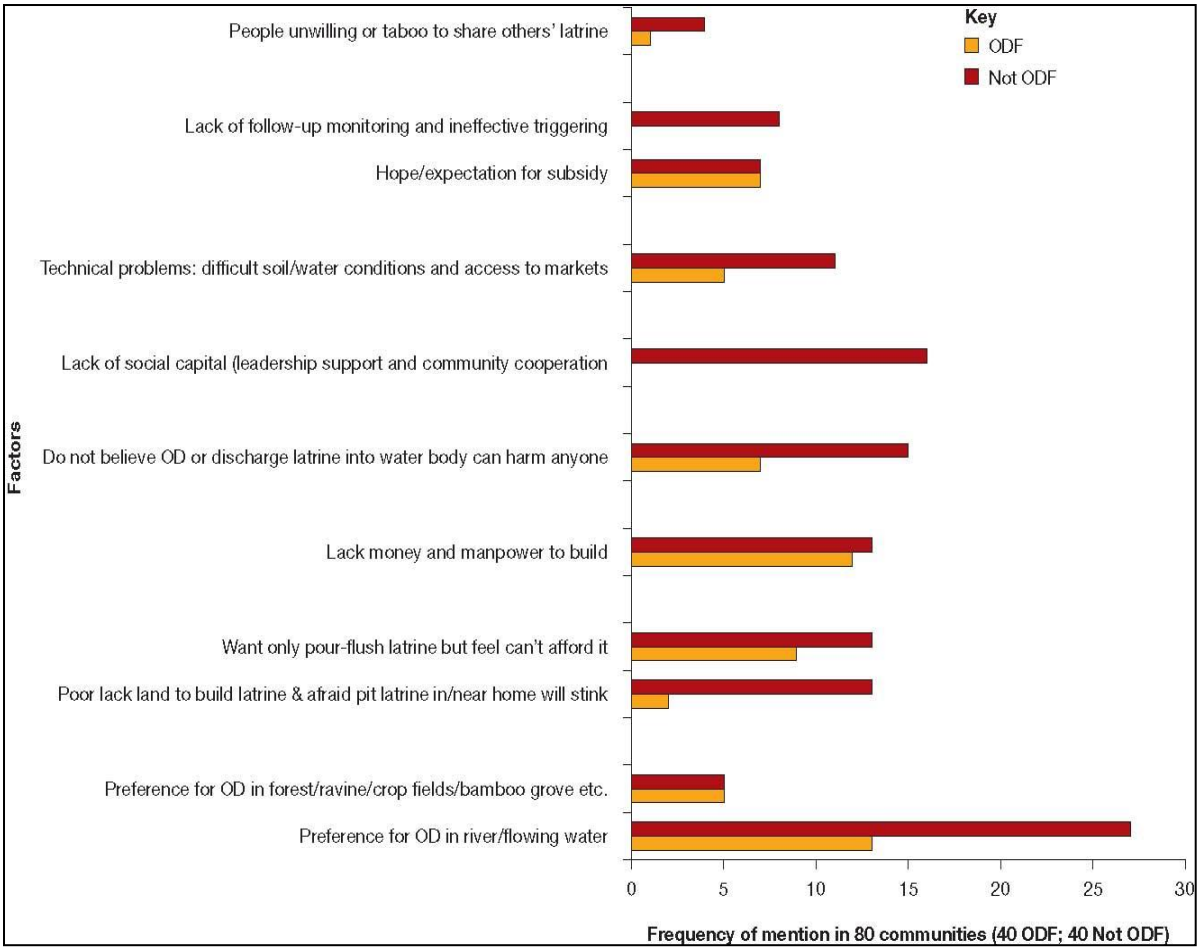
The reason is that they prefer open defecation into flowing water bodies, because:

- "*Feces are carried away by the flow or eaten by the fish and the community stays clean."*
- *"River/sea washes away feces."*
- *"It is cleaner than defecating in pits."*
- *"Shit is not something to be kept in or near home. The river takes it away."*
- *" We enjoy defecating in running water. It is also convenient, and free of cost."*
- "*As long as rivers flow, why spend money/time to build latrine?"*

Figure 14 shows that the next most potent hindering factor is a combination of several related issues. Poor river defecators think the pour-flush system is the only kind of latrine worth building, but perceptions about its cost range from 2-3 million rupiahs (US$200-300), which they find unaffordable. They are largely unaware that pour flush systems can be built at lower costs. While pit latrines are cheaper, they strongly abhor the idea of pit latrines, which they consider smelly, filthy things which must not be built anywhere near homes. But settlements are crowded and poor households often lack land to be able to locate their pits sufficiently away from their dwelling unit. Their conclusion therefore is that they lack the resources to build hygienic latrines, and while they have access to the river, they already have a clean and comfortable feces disposal system. Therefore, why bother to change OD behavior?

Less frequently mentioned hindering factors include lack of social cohesion in NOT ODF communities, which made collective effort or change more difficult, and progress monitoring of no interest to anyone. Both ODF and NOT ODF communities agreed that the poorest families—such as the households of widows or the infirm and aged—do face a resource crunch to build anything. Such families lack able-bodied men and cannot afford to pay laborers. ODF communities helped these families acquire sanitation facilities through *gotong royong* twice as often as did the NOT ODF communities.

FIGURE 14: WHAT HINDERED COLLECTIVE BEHAVIOUR CHANGE—VILLAGERS' OPINIONS



NOT ODF communities also reported more technical problems such as rocky soils making digging harder and more expensive, swampy areas requiring special and expensive latrine technologies and having poor access to markets**.** Ineffective triggering was cited as a hindering factor by eight out of 40 Not ODF communities. While latrine sharing by non-owner households is often encouraged by sanitation programs for the sake of collective behavior change, it goes against local cultural norms. Focus groups in several districts reported that it is considered a taboo to defecate in a neighbor's house. Even elsewhere, sharers harbor a deep sense of embarrassment about sharing on a regular basis. Many sharer focus groups reported that they prefer to practice OD rather than share, and ask neighbors' favor to use their latrines only in an emergency, when sick, at night, or in bad weather.

6.6 External and Internal Subsidies Associated with Different Results

As of September 2008, subsidies for household facilities are no longer provided by the Health Ministry, in accordance with the new national STBM (*Sanitasi Total Berbasis Masyrakat*) strategy. However, the study found subsidies for household latrines and free communal facilities still being provided in all districts by programs of other Ministries, local governments and the private sector. Nearly half the sample communities had received some forms of external subsidies. They were in the NOT ODF or LATE ODF groups.

Table 13 below shows that apart from externally provided subsidies, there were subsidies that were made available by village chiefs impatient to have their communities declared ODF. These subsidies were funded through creative utilization of village development funds by village chiefs. The subsidies were targeted accurately to all non-owners of latrines, and their utilization was followed up by village leaders. Thus they helped achieve collective behavior change targets, although the behavior changes were sustained only in communities with continued behavior monitoring and sanctions against open defecation. In comparison, externally provided subsidies from the government or the private sector reached only a few selected community households and did more harm than good, because they encouraged the remaining households to hope and wait for further subsidies and take no self-help action. **All communities that had received external subsidies were found in the NOT ODF category.**

Also observed in two NOT ODF communities were some examples of brand new communal latrines kept locked up and unused by anyone. They were built by the national PNPM program for community infrastructure development in poor villages. Families living close to them had locked them up, fearing use or misuse by all and maintenance by none, which could result in a an undesirable condition next to their homes

TABLE 13: SANITATION SUBSIDIES RECEIVED AND BEHAVIOR CHANGE OUTCOMES

Form of Subsidy Provided	Type of Community that Received	Provided by	Result
Wooden lids for all open pits	10 percent of QUICKLY ODF communities	Village chief, using village development funds	20 percent of the lids had been lost or damaged and not replaced, two years after ODF certification.
Cement closets made by local mason for all non-owners of latrines	5 percent of QUICKLY ODF communities	Village chief, using village development funds	Cement pans are in use, but user households planning to upgrade to ceramic pans as soon as they can afford.
Ceramic closets to all households without latrines	20 percent of LATE ODF communities	Village chief, using village development funds and Desa Siaga (MOH) funds meant for building birthing clinics	• Targeted distribution and follow up by village chiefs and village government members ensured all households constructing latrines. • OD into rivers continues, in one fifth of all LATE ODF communities
Ceramic closets for a few households	20 percent of NOT ODF- High-coverage communities 10 percent of NOT ODF-low-coverage communities	• Private sector agencies P.T. Sampoerna and Bank Mandiri, using Corporate Social Responsibility funds • National community development program (PNPM) • P2KP (Urban Poverty Program)	After triggering the remaining households kept waiting for other sources to come and offer subsidized latrines
Free communal latrines built	20 percent of NOT ODF-high-coverage communities	• National community infrastructure development program (PNPM) • Public Works Department	• New facilities from PNPM kept locked up by families living close to them, no one uses them. • Old facilities built by Public Works damaged and defunct. Community does not want to repair them - they discharge directly into the river.
Soft loans for building latrines to some households	15 percent of NOT ODF-high-coverage communities 10 percent of NOT ODF- low-	• National community infrastructure program (PNPM)/ Poverty alleviation fund (Gardu Taskin) • LG Health programs	All credit schemes stopped revolving funds as receivers did not repay loans and could not be made to.

	coverage communities	(Gerbang Mas, Poltekes) • National RWSS project WSSLIC 2)	

6.7 Behavior Change—Whose Priority Is It?

"If they (outsiders) want to speed up access to latrines in the village, the government has to provide subsidies, specially for the poorer classes."
—Ibu Budi Margono, Wife of Kepala Desa, village Tamanan, district BONDOWOSO

"*Better to use the money for children's schooling than for building latrine*."
—Ibu Lilik, Woman from village Seketi, district KEDIRI

Analysis shows that a lack of progress after triggering in NOT ODF communities identifies multiple reasons other than poor triggering. Table 14 shows that a range of factors worked in combination to delay or arrest progress. Firstly, demand for change is difficult to ignite in riverbank communities. Further, poor quality triggering, and particularly facilitators telling communities to build latrines *during* triggering hampers the build up of community desire to change behavior. Due to a history of subsidized sanitation programs, any advice from outsiders' to build latrines immediately changes the discussion to one about how to get free or subsidized latrines. Thereafter no commitment for action can be catalyzed because all start hoping and waiting for subsidies. In several NOT ODF communities large crowds that had gathered for triggering dispersed as soon as the facilitator clarified that no latrine packages or other subsidies were being offered. Many people did not believe that subsidies will not ultimately be provided and chose temporary solutions like putting lids on open pits, or expecting to upgrade to pour-flush latrines as and when subsidy packages became available (see Table 14).

TABLE 14: SUMMARY OF PROGRESS AFTER TRIGGERING IN 40 NOT ODF COMMUNITIES

Progress after Triggering	**NOT ODF Communities Reporting** (N=40)	**Associated Factors Reported**
No progress at all (Less than 10 households changed behavior)	16	• On riverbank, prefer to go to river, • Waiting for subsidy, • Have fish ponds to feed, • Transportation access poor -
Very slow progress (10 -15 new households built latrines in a year)	13	• Facilitator advised them to build latrines during triggering • Lack land to build latrine away from dwelling unit and therefore want only pour flush system which can be built in or near home—but think it costly and will build only if given subsidy. • On riverbank
Started but soon stopped	11	• Put lids on open pits, then did not upgrade, and waited for subsidy. (After 1-2 years half the lids were damaged or lost,and not replaced

6.8 Strategies Used to Overcome Obstacles to Progress

ODF and NOT ODF communities were markedly different in their strategies to overcome obstacles in their way to becoming ODF. Table 15 illustrates ways in which they responded to hinderances.

While the QUICKLY ODF communities were consistently better at managing the behavior change process, both QUICKLY and LATE ODF communities focused on identifying and changing specific behaviors rather than just getting people to construct latrines. The leaders of QUICKLY ODF communities also instituted various disincentives designed to change behavioral norms and make open defecation socially unacceptable. At the same time they also devised ways to bring the preferred kinds of latrines within economic reach of the households. Unlike in the NOT ODF communities, the leaders and sanitation committees of ODF communities neither expected nor attempted to obtain external subsidies. These findings emphasize the importance of finding ways to ensure that village leaders are the ones leading the collective change movement. Indonesia's paternalistic community leadership tradition is very effective in ensuring rapid communitywide change if the formal and informal leaders are convinced about its need (Table 15).

TABLE 15: STRATEGIES USED TO OVERCOME OBSTACLES TO PROGRESS

Obstacles	How ODF Communities Responded	How NOT ODF Communities Responded
Open defecation being a normal, socially accepted way of life	• Specific behaviour changes promoted and monitored through multiple channels: village institutions/ religious leaders/ schools/kaders/bidan desa o Stop OD – especially in river o Cover open pits o Share others' latrine till own built o Build own latrine	Focused mainly on getting people to build latrines – monitored only construction.
Termite destroying latrine pit covers	• Promoting metal or plastic covers instead of wood; making available covers for affordable price, with Village chief's order to cover pits and sanction for not doing so	No action
People unwilling to give up OD in river/ build own latrines	• *Gotong royong* to build latrines for all interested, as well as uninterested, to shame them into compliance (message "*We will build latrines for those unable to help themselves.*" meant to embarrass them into compliance). • Sanctions/reprimands for people found OD-ing in river	• Not interested in stopping river OD. Think it is clean/convenient/free /enjoyable/does not harm people or environment, and feces " not something to keep"

	• Public latrine with septic tank built near river • Hanging latrines over river dismantled - Latrine owners requesting OD-ers to share their latrines instead of Open Defecating • Village leaders motivating people with reference to stinking river in dry season	• *Gotong royong* in groups to build latrines for group members (cuts labor costs) • No action to overcome – Committee persuaded poor OD-ers with examples of other poor OD-ers who had changed behavior and built latrines
Open pit latrine users unwilling to upgrade	• Sanctions -public shaming and reprimands from community leaders for continuing	• Home visits by Bidan and village volunteers to persuade them to change – no effect

TABLE 15 (CONT): STRATEGIES USED TO OVERCOME OBSTACLES TO PROGRESS

Obstacles	How ODF Communities Responded	How NOT ODF Communities Responded
People's perception that a hygienic latrine is too costly	Facilitated supply or financing: • Committee worked out Rp.59000 offset-pit latrine design with local mason, organized bulk buying of materials to lower cost • Project-trained masons provided technical guidance to build hygienic latrines on small plots / options for cost reduction • Bidan desa, village government and local mason developed a community contributory scheme and supply network to make available materials, skills and affordable financing for needy people interested in building latrines • People saving up to add to lump sum savings that will be possible after harvest/in fishing season, to build latrine • Installment payment terms to masons/suppliers arranged by village government on behalf of village residents • Loans made available by village government to households from PNPM funds given to community	Subsidies: • Waited for subsidy /did not believe that there could be a sanitation program that did not provide construction subsidy • Distributed free closets using village development funds • Gave credit from WSLIC funds (it stopped revolving after the first few recipients) • Sent proposals to SANIMAS //Public Works Dept for building communal latrines-still waiting • Planned arisans (did not materialize) Facilitated supply/financing: • Arranged instalment payments to mason Rich hhs. built water reservoir for their own plus neighbors' use for flushing • Supplies bought through neighbors going to town (market access low)

Figure 15: Sanitation Ladder Derived from 574 Latrines Observed in 80 Communities

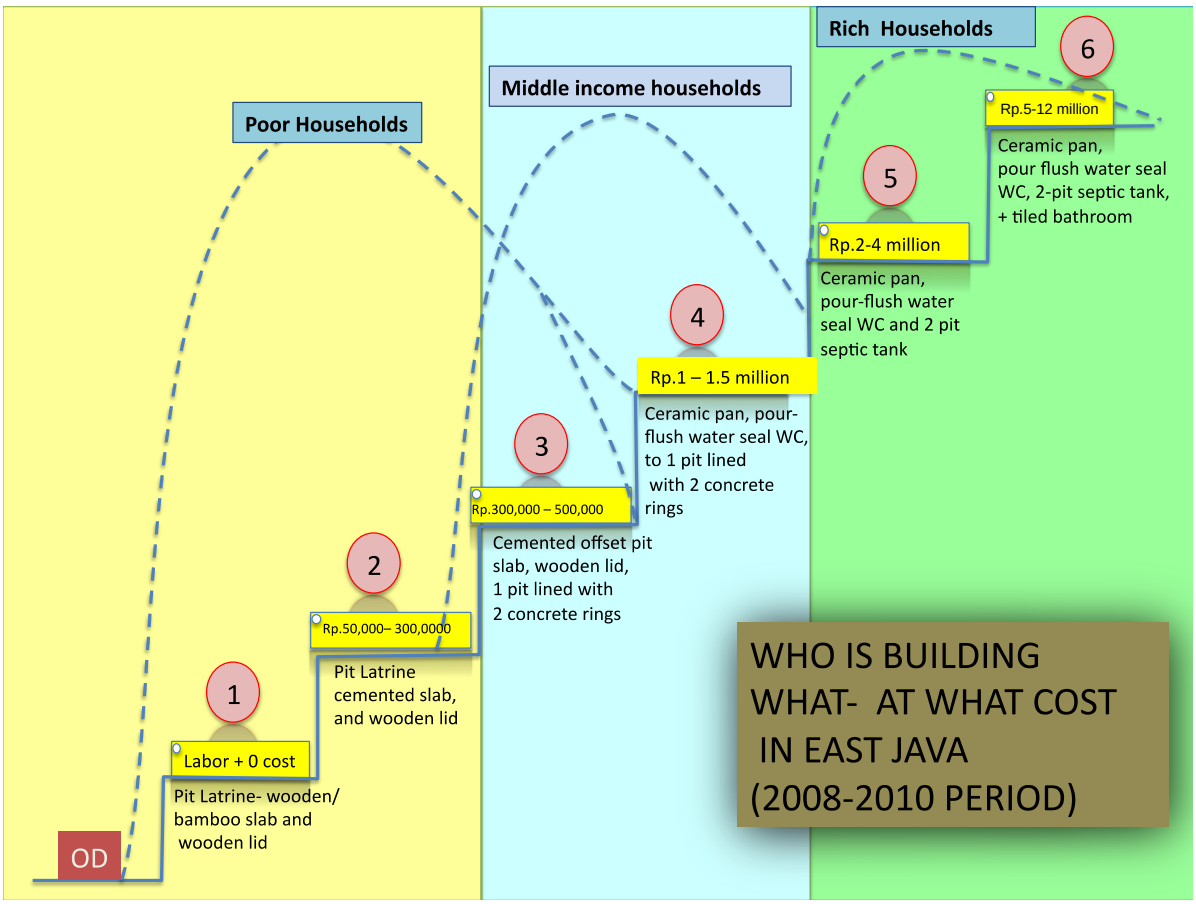
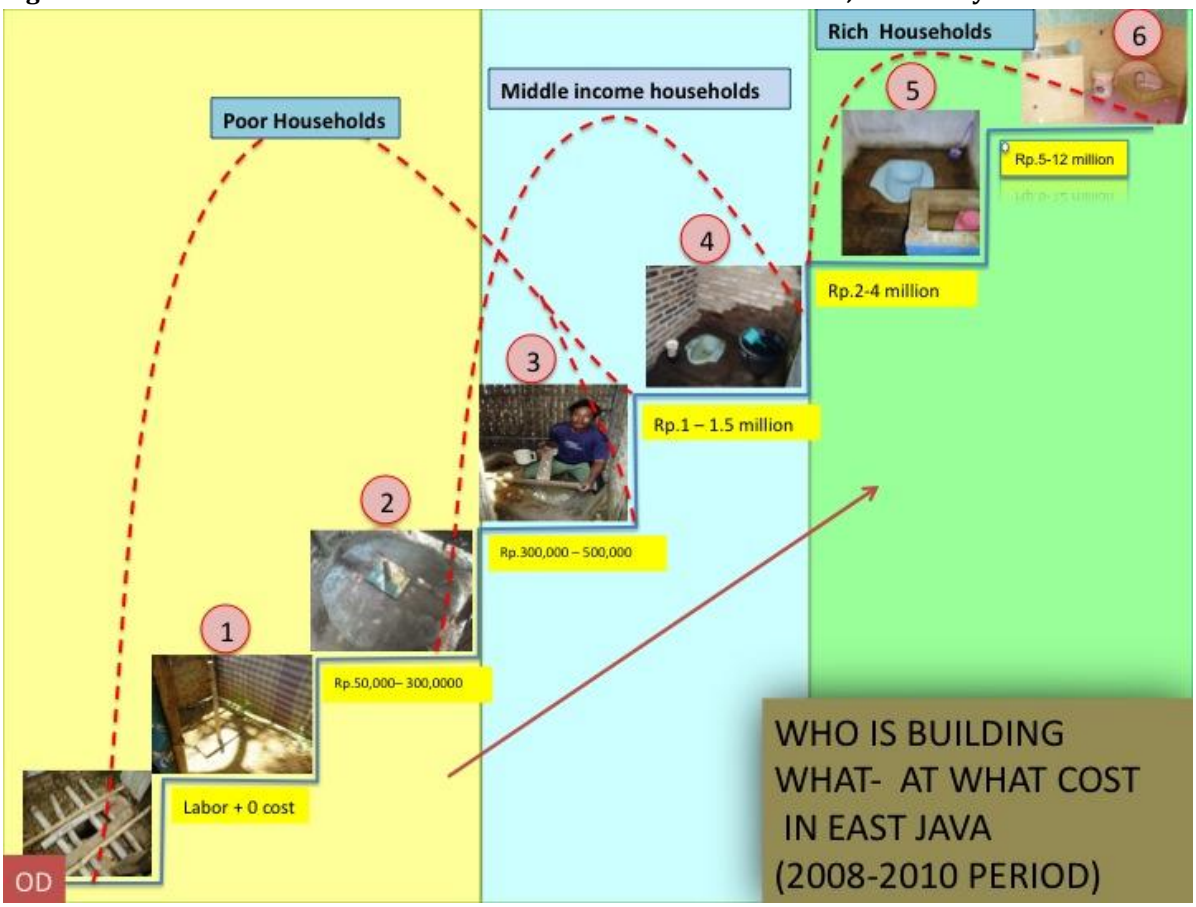


Figure 16: Sanitation Ladder of Facilities observed in 80 Communties, Pictorially



VII. What People Have Invested in and Why

Key Findings

- The principal strategy used in 60 percent of the sample communities to become ODF, was to build new pour-flush latrines. Twenty percent of communities had chosen to become ODF mainly by building new improved pit latrines, 17.5 percent communities had become ODF by adding wooden lids on existing pit latrines, and 2.5 percent had built new offset pit latrines with lids.
- Even poor households had spent around Rp. 300,000 (US$33) to build the cheapest improved pit latrine. Wherever water for flushing is not scarce, the poor reported a preference for the smell-free pour-flush water seal latrine, which the market currently offers at four to five times the price of the improved pit latrine, which the poor find too expensive.
- In nine percent of the sample communities, Sanitarians and project-trained masons trained were found to be offering starter-level pour-flush systems at Rp 300,000 which were upgradable over time with additional investment, or basic pour-flush systems with a single leaching pit at Rp.750,000, with installment payment plans. These service providers have large backlogs of orders that they are struggling to fill.
- The local mason resident in the community is the primary source of information to consumers about the types of latrine to build, and the primary construction service provider. He is unaware of, and not providing information on, the low cost sanitation options being promoted by the project based on market research. Most locally resident masons missed out on training provided by the project.
- People in NOT ODF communities responded with keen interest to low cost options, particularly for the pour-flush latrines. When shown the TSSM Informed Choice Catalogue (ICC), consumers initiated action in 11 out of 40 NOT ODF communities to choose and construct one or more options from the ICC.

7.1 What Consumers Are Building—At What Cost and Why

In each of the 80 communities visited, researchers observed 9 latrines in the homes of rich, poor and in-between households, in order to understand their preferences and ability to pay. From the total 720 latrines thus observed, 146 were later found to have been built before project intervention and information about them was excluded from this analysis as the construction costs of much older latrines were not comparable with those built during the project period. The data presented here is from 574 latrines constructed during the project implementation period and interviews with the 574 owners. Table 16 and Figures 15 and 16 present a sanitation ladder showing what different classes of consumers have chosen to spend on and build.

TABLE 16: SANITATION LADDER DERIVED FROM 574 HOUSEHOLD (HH) LATRINES OBSERVED IN 80 COMMUNTIES

HH welfare category	Total HH latrines observed	Hanging latrine on fish pond	Direct or offset simple pit latrine w/o cover	Direct pit with cover made of		Offset pit cement slab latrine with cover	Pour-flush, water seal, cement pan, 1 leach pit	Pour-flush water seal, ceramic pan, 1 leach pit	Pour-flush water seal, ceramic pan 2pits/septic tanks	Pour-flush water seal, ceramic pan, 2-3 septic tanks + bath-room
				Bamboo/ wood/ plastic	Cement slab					
Poor	187	2	3	72	7	7	16	25	21	34
In-between	203	1	3	25	7	3	20	25	19	101
Rich	184			5	1	4	13	6	10	145
Total	574	3	6	147	15	14	49	56	50	280

The sanitation ladder above and in Figure 15 illustrates the observed stepwise progression of facilities built with increasing cost. Depending on what a household could afford and chooses to invest in, open defecator household entered the ladder above at any level from 1 to 6.

While observing 574 homes and latrines of the poor, rich, and in-between households, the researchers asked the owners why they had chosen to invest in those particular types of latrines. The reasons given by latrine owners are summarized in Table 17.

The first, no-cost change that the poorest had made to stop open defecation was to dig a simple dry pit latrine (*cemplung*) and cover it with locally available material like bamboo and wood. Many bamboo and wooden covers did not remain tight fitting after one rainy season. If there was construction material leftover from their own or a relative's home renovation, then they used it to reinforce the pit and cover it with a cement slab. Alternatively bamboo was used to reinforce pits. Following CLTS triggering, these pit latrines were quickly fitted with well fitting lids of wood, metal or plastic. All these changes were estimated to cost up to Rp. 300,000 (US$33)[28] but were not usually paid in cash, as the leftover material came free of cost and the

[28] Cost calculations were done with latrine owners. All latrines costed and reported here were built during the project period, i.e., within the last 2.5 years, and recall of costs was fairly accurate. Owner households were able to provide actual cost figures for latrine parts and building materials when they had bought them, daily wages for skilled and unskilled labor, and the value of what was available free of cost, including their own labor for digging pits.

household members contributed labor. The rich households did not build dry pit latrines unless they lived in a water-scarce area where water was unavailable for flushing.

TABLE 17: WHY POOR/RICH/IN-BETWEEN HOUSEHOLDS CHOSE TO BUILD DIFFERENT LATRINE TYPES (Brackets show frequencies of reasons stated by owners*)

HH Category	HH latrines observed/ owners inter-viewed	Direct pit *(Cemplung)* with cover made of		Offset pit cement slab latrine with cover	WC Pour-flush, water seal, cement pan, 1 leach pit/2 pits/septic tank	Pour-flush water seal, ceramic pan, 2-3 septic tanks + bathroom
		Bamboo/ wood/ plastic	Cement slab			
Poor	**187**	Cheap and affordable, though smelly; materials locally available; free (42) Enough land (14) No water for flushing	Building materials leftover from own or relative's house building (29) Can upgrade later to pour flush, water seal (2)	More durable and cleaner than cemplung/feces not visble/no flies (8) Comfortable/conven-ient, but not smell-free (4) Cheaper than WC (8)	Easy to clean (8) No flies or mosquito/no smell/feces not seen (6) Comfortable/conven-ient/ no fear (6) Safe/durable/strong (6) Practical for small	Got subsidy package (8) Septic tanks take many years to fill (2)

		(10)			plots (2)	
In-between	**203**	Affordable /material locally available (18)	Building material left over (17) Can up-grade later to WC (3) No water for flushing (8)	Best compromise (WC too expensive but don't want pit latrine) (9) Affordable/cleaner and more durable than pit latrine (8)	Aesthetic/easy to clean/feces not seen (38) No smell/no pollution (24) Affordable (19) Fits small plot (18) Will not collapse/ safe/durable (11) Comfortable/convenient (15) Only type possible for swampy area (1)	All reasons from previous column and: 2-3 septic tanks won't fill quickly (9) Want same as neighbor's facility (2)
Rich	**184**		No water for flushing (8)	Reasonable cost (8) Clean/comfortable (6) Safe/durable (1) Bargain, group action and uniform design lowered costs (1)	The Rich do not build latrines with cement-cast pans	Aesthetic/ hygienic/ Easy to clean/feces not seen (37) Strong/lasts many years w/o maintenance (23) Fits small plots/can be outside home (5)

						Comfortable/ convenient (33) Prestigious/mod ern (26) Suitable/ affordable (11)

** Numbers may not sum up exactly as many owners cited more than one reason for choice*

The cheapest permanent latrine constructed by the poor as well as the middle-income classes was the offset pit latrine (*plengsengan* in Indonesia), at Level 3. Usually the pit was partially reinforced with two concrete rings, covered with a cemented slab with in-built pan and fitted with a wooden lid. It cost between 300,000–500,000 (US$33-55), of which only the materials were paid for and the labor contributed by the household. The *plengsengan* was described as "the best compromise" between the direct pit latrine, which people do not really like but find very affordable, and the pour-flush water seal latrine with leaching pit, which is considered highly desirable but too expensive by the poor households. The rich households built an offset-pit latrine only if conditions of water scarcity ruled out the use of pour-flush systems.

Level 4 was the basic model that the poor consumers said they really want—a pour-flush system with a ceramic pan and water seal, and a single leaching pit reinforced with two concrete rings. Interviews with latrine owners clarified that such a smell-free and easy to keep clean facility is the latrine that poor consumers aspire to get if they can afford it (see Table 17). Middle-income consumers building their first permanent facility tend to enter the sanitation ladder at this level, except in areas where water is scarce and not available for flushing. The poor also reported wanting this and often put off constructing a latrine until they can afford this type. The Level 4 latrines observed in the communities had cost their owners Rp. 1-1.5 million (US$110-166) to construct.

In 9 percent of the sample communities the Level 4 latrines were found to cost much less, around Rp. 750,000 (US$83), where project-trained masons had offered various lower-cost options for the facility as a result of their training. All the poor customers in those communities had gone directly for pour-flush systems as their starter models. This indicates that while the poor are able to spend around Rp. 300,000 for the cheapest improved pit latrine, what they really want is the pour-flush water seal (smell-free, easy to keep clean) latrine and are willing to stretch their resources to Rp. 700,000-800,000 for it. The market however, still offers it at a price 50 percent higher than that, except where project-trained Sanitarians/masons are offering lower cost solutions and easier payment options

Levels 5 and 6 were built only by the rich villagers. They comprised the same pour-flush systems but with higher quality ceramic pans and added features like twin pits, septic tanks, latrine+ bathing facilities and luxury features like tiled floors and walls. Costs went up to Rp. 2-

12 million (US$222 – 1333) with the quality of the facility and materials. Motivations like prestige and competition with neighbors entered the decision-making process in the upper classes. The rich households invested at one go to get the benefits they want, unlike the middle and the poor classes, who upgraded progressively at harvest time, before family weddings, or through deferred and installment payments. The following quotes illustrate the types of rationale behind investment decisions of the households in the three welfare categories.

> *"It is good to build an ideal facility the very first time—so that we can enjoy its benefits for a long time without incurring repair costs and maintenance problems. Such facilities fit our lifestyle."* —**Rich household**, owner of Level 6 latrine, Morkolak Timur/ *Bangkalan*

> *"We have to consider many things before deciding what to build, such as affordability of the technology, availability of land to build on, availability of water and building materials."* —**Middle-class household**, owner of new Level 4 latrine, Kayoran/*Kediri*

> *"Even if loans were available to improve our latrine we don't want to take on the burden of debt for that purpose. Loans are more justified for reasons like children's education or buying livestock. After harvest if we have some surplus money, we'll think of upgrading the latrine."* —**Poor user of dry pit latrine**, with a wooden plank lid. Banyumas/ *Pamekasan*

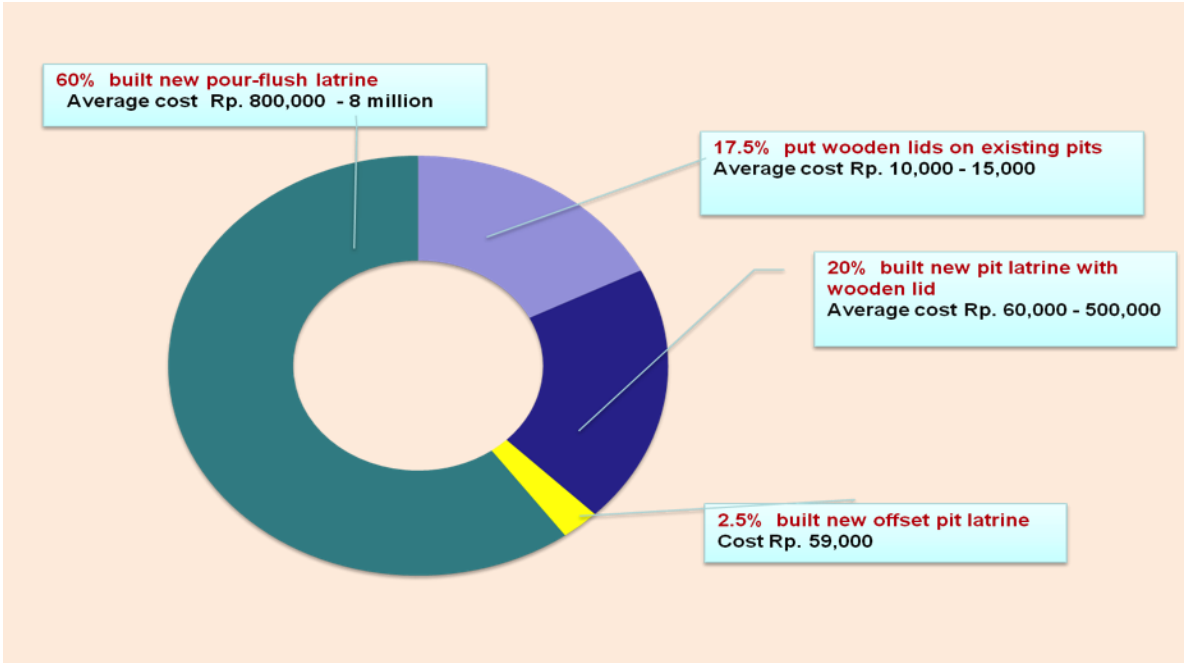
7.2 Sanitation Solutions Chosen for Becoming ODF

Analysis of the types of actions taken in the 40 ODF communities corroborated the pattern of people's investment preferences (seen in the 574 latrines observed in all 80 communities). The communities visited were able to provide monitoring records to researchers about all facilities built or improved after triggering in order to become ODF. Figure 17 shows the solutions predominantly chosen by communities that took action to improve their sanitation facilities following triggering.

Predictably, the most preferred strategy was to build pour-flush water-seal latrines with ceramic pans. Sixty percent of communities became ODF mainly by building these facilities. This confirms the findings from the project market research study by Nielsen (2009), which found that people's "ideal" latrine is this type, along with the feature of 3-4 years' usability before the pit needs emptying. However, households that could afford such facilities had spent upwards of Rp.1.5 million to acquire them. There were many who could not, and had built dry pit latrines with lids instead, or simply added close fitting lids on existing pits. The latter two groups, comprising 38 percent of the total, reported aspiring to the "ideal" system at some point in the future, if and when they can access that much money. A fifth of the communities

became ODF by building new pit latrines with lids. Another 17.5 percent added tight fitting, durable wooden lids on their open pits. All latrine-less households in one community out of 40 bought a low-cost offset pit design developed locally.

FIGURE 17: SANITATION SOLUTIONS PREDOMINANTLY CHOSEN BY COMMUNITIES TO BECOME ODF



Some variations were observed in the quality and costs of facilities built in the QUICKLY and LATE ODF community categories. The improved pit latrines and pour-flush latrines built in LATE ODF communities were of higher quality and cost about 50 percent more than those built in QUICKLY ODF communities. To accelerate access for all households, the QUICKLY ODF communities had used cost reduction strategies like bulk purchase of supplies, uniform designs, free community labor and the most basic models that all could afford. *Gotong royong* over short periods of 1-2 weeks had resulted in whole communities getting their facilities completed. One village chief boasted their doing "10 latrines a day." In LATE ODF communities there was no group effort in construction. Individual households built a greater variety of facilities, took several weeks or months to build, and built more durable and higher quality permanent structures (see Table 18). But open defecation continued in a fifth of LATE ODF communities, even after all households had acquired better quality latrines.

TABLE 18: COSTS OF LATRINE TYPES BUILT AFTER TRIGGERING IN ODF COMMUNITIES

Types of Latrines Built after Triggering	**Range of Costs of Observed Latrines** (Average Cost in Brackets)	
	QUICKLY ODF communities	**LATE ODF communities**
Improved pit latrine with lid	Rp.25,000–350,000 (Rp.131,000/US$14.24)	Rp.67,000–500,000 (Rp.290,000/US$31.52)

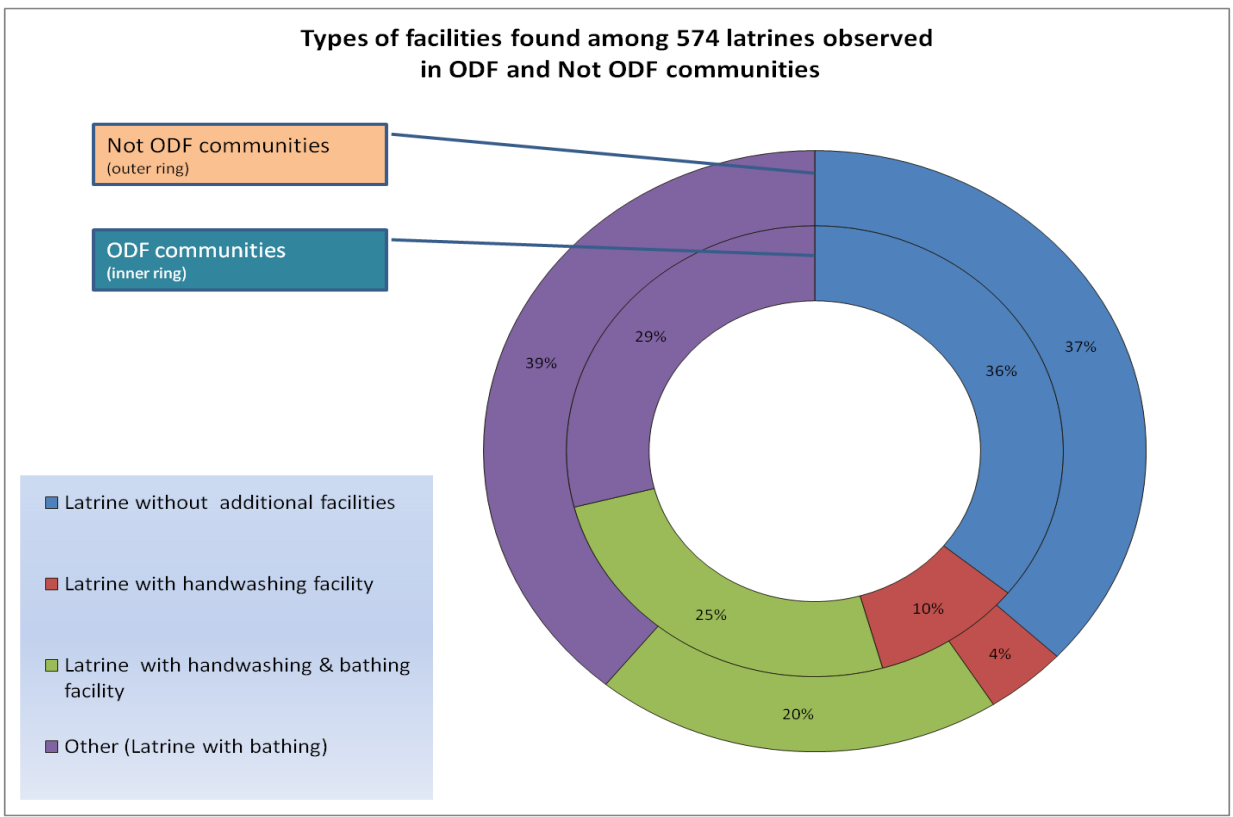
Offset pit latrine with cemented slab	Rp. 59,000 (US$6.41) + self-contributed labor	Not found
Pour-flush, single and double pit, with or w/o bathing facility	Rp.700,00–2,500,000 (Rp. 1,485,000/ US$161.41)	Rp. 1,300,000–4,000,000 (Rp.2,334,000/US$253.70)

7.3 Types of Additional Facilities Built Along with Latrines

Researchers observed 307 and 276 facilities respectively in ODF and NOT ODF communities. roughly in equal proportions in homes of rich, poor and middle/In-between households. Apart from the quality of materials and construction, variations were observed among different categories of households in terms of additional hygiene facilities they had built (see Figure 18).

With increasing economic capacity consumers tend to add additional facilities to basic latrines, such as washing and bathing facilities and piped water supply. Fifty percent of the total facilities observed were found to be latrine with bathing and washing facilities, and were mainly in the homes of the rich and the middle-class. The poor households had built only their basic latrine, unimproved or improved pits or pour flush pans, often with only grass matting or fabric sheets for enclosure and no roofs. The in-between class households had more permanent enclosures and about half had added a *bak* (water storage facility) for flushing and, where soap was visible, for handwashing. The *baks* in middle/in-between class households were manually filled. The rich invariably had large *baks* and piped water supply along with their latrines, as the water storage facility was also used for bathing.

FIGURE 18: ADDITIONAL FACILITIES IN 574 LATRINES OBSERVED IN ODF AND NOT ODF

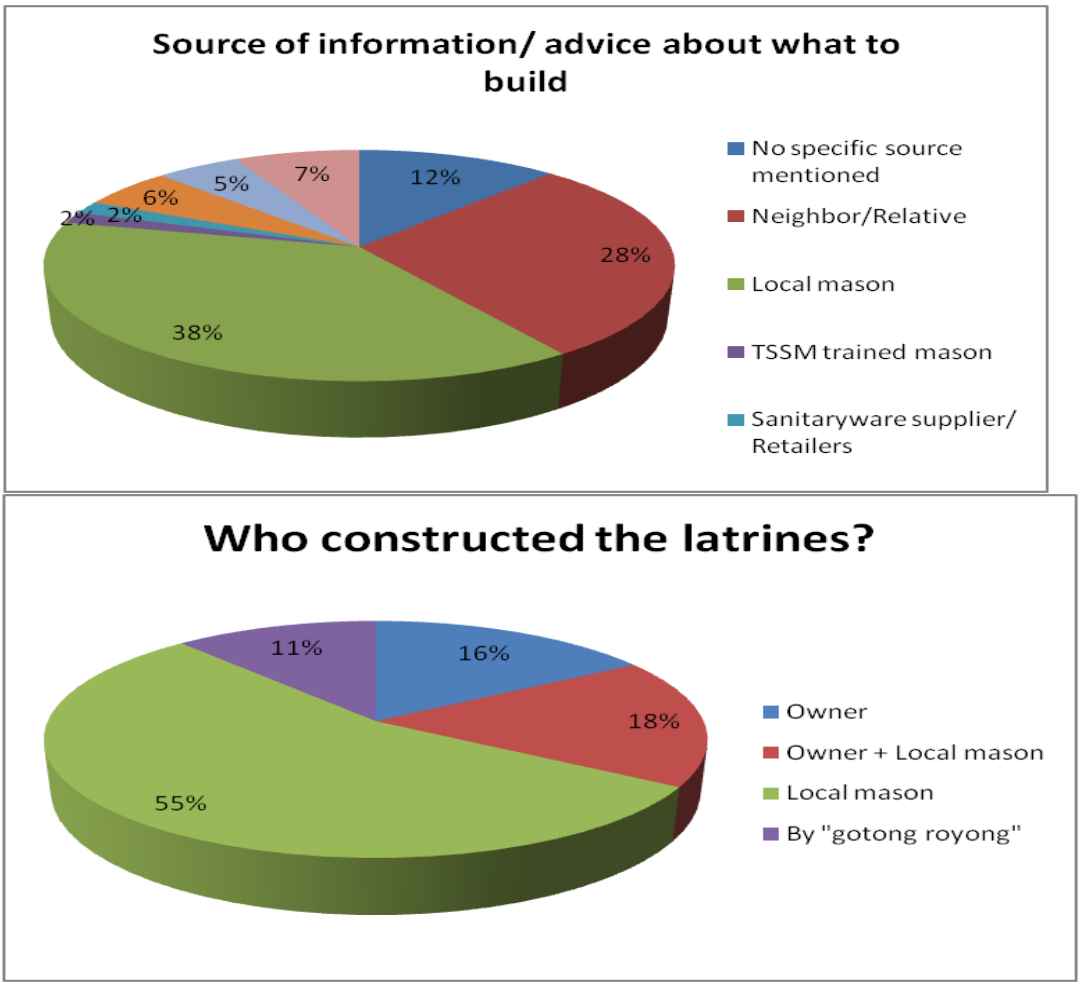


Handwashing facilities were included in latrines twice as often in ODF communities as in NOT ODF communities, which could be an indicator of behavior change (see Figure 18). As reported in Chapter 3, schools in ODF communities were also found to be equipped with functioning handwashing facilities more often than schools in NOT ODF communities.

7.4 Local Market Offerings for Consumers

Latrine owning households were interviewed about their sources of pre-purchase information and sanitation service providers. Figure 19 shows that the local mason resident in the community or the neighboring community emerged as the primary source of information and advice about what kind of latrine to build. People consulted the local mason 38 percent of the time, and asked their neighbors or relatives who had latrines another 28 percent of the time. The same mason who was consulted for advice also constructed the latrine 55 percent of the time. The owners provided the labor in 34 percent cases, and built their own facilities without the mason's help in 16 percent cases. Eleven percent latrines were built through *gotong royong*. However, very few of these local masons had been included in the mason training provided by project, because they did not meet the qualifying criteria in terms of formal education, which had been determined jointly by the training institution (Institute of Technology, Surabaya) and local governments.

FIGURE 19: SOURCES OF INFORMATION, ADVICE, AND SERVICES FOR SANITATION IMPROVEMENTS



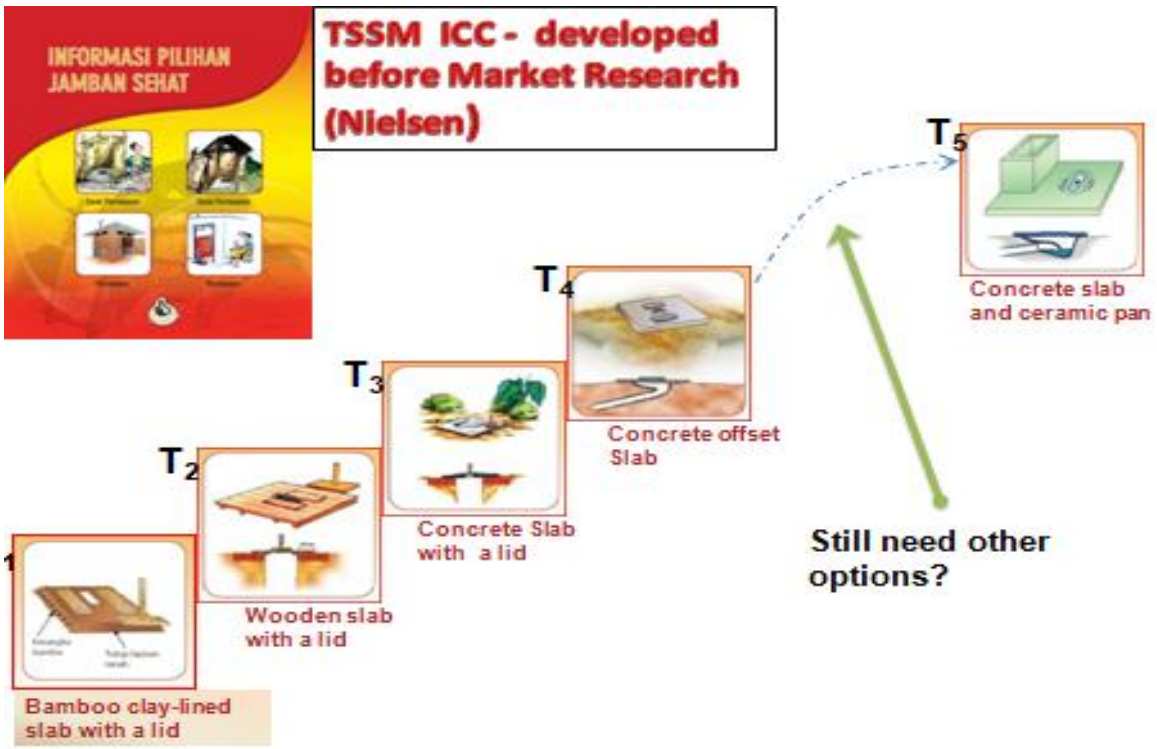
Latrine owners in 80 communities reported that the Sanitarians (trained by the local government in the pre-project era) and the local masons resident in the communities had both advised clients about one or two standard "ideal" designs of a pour-flush water seal latrine with two-stage septic tanks. This costs around Rp. 2-3 million and is beyond the reach of most poor and even middle-income households. Thus the masons had ended up serving mainly the upper classes. This has helped popularize the myths that good quality, hygienic latrines are expensive and affordable only by the rich, and that the only such latrines are the ones with ceramic pans, water seal closets and two-stage septic tanks. The project mason training had to be deliberately designed to dispel these myths and spread awareness of lower cost hygienic latrines. The next section reports some effects of that training.

The Informed Choice Catalogue (ICC) designed for the project offers five progressively higher design options costing between Rp. 250,000-1,00,000 (US$28-110) with possibilities of further cost variations with different building materials within each design. The ICC was developed

before market research[29] was completed in the project, and does not include the options that most poor consumers are looking for, i.e. pour-flush water seal latrines with ceramic pans which can work for three to four years without further maintenance costs (see Level 4, Figures 15 and 16, and the gap between T4 and T5 in Figure 20), starting at around Rp. 300,000.

In nine percent of the sample communities the study found Sanitarians and project-trained masons trained who have identified this gap in the market. In Ngganjuk, Lumajang and several neighboring districts they have begun to offer starter-level pour-flush systems with ceramic pans and single ring-lined pits at Rp 250,000, which can be upgraded in 1-2 years' time with an additional Rp. 100,000-300,000 investment in better reinforced pits or septic tanks. These providers are experiencing very high demand for their services and have large backlogs of orders that they are struggling to fill. Box 7 shows an example of what they are offering.

FIGURE 20: TSSM INFORMED CHOICE CATALOGUE OPTIONS



7.5 Trained Masons, Entrepreneurs, and Informed Choice Catalogue: Are They Making a Difference?

TSSM–trained masons resident in the community were encountered only in nine percent of the sample communities. Where they were found, they were:

[29] *Total Sanitation and Sanitation Marketing Research Report* by The Nielsen Company. Prepared for the World Bank Water and Sanitation Program, March 2009.

- Offering lower cost versions of the consumers' first preference i.e., pour-flush systems with ceramic pans at Rp. 250,000-750,000 (market price is Rp.1.5 million upwards), and a locally-designed offset pit latrine at Rp. 59,000 + own labor (market price Rp.400,000).
- Providing designs upgradable over the next one to two years (market offers one or two standard and fixed designs)
- Offering installment payment facilities of Rp. 20,000–50,000 monthly. Installment payments for sanitation is not common market practice yet.
- Producing very low cost cement pans using capital credit provided by the village chief, in response to community demand.

In these communities the consumer response was high and all poor consumers building their first latrines had opted for the affordable pour-flush water seal systems. In one community all households without latrines, poor, rich and in-between, had chosen the offset pit design at US$6.75, made possible through design innovation, economies of scale in materials and building process, and no labor costs as this was contributed by all community households. The supply improvement challenge now is how to make all local masons function in these ways.

Local masons trained by the project were hard to find in the study communities, for reasons explained in Box 6. Nine percent of communities had local masons oriented by project-trained *Sanitarians* who were building service provider networks using local masons. They themselves were functioning as sanitation entrepreneurs because of the large volume of orders they have received.

BOX 6: WHY WERE PROJECT-TRAINED MASONS NOT FOUND IN COMMUNITIES?

A review found that the mason training missed most of the local masons living in the communities. The training was designed and delivered by the ITS Technology Institute, Surabaya before the Nielsen market research had identified the centrality of the local mason's role in the consumers' decision making process.

ITS specified qualifying criteria for trainees to district Health offices, which selected the trainees from sub-districts. The criteria were such that most local, uneducated masons did not qualify. The required number of better-educated and qualified masons were hard to find and the shortfall was made up by selecting technically able villagers or hamlet chiefs, and Sanitarians, who are puskesmas staff responsible for environmental sanitation, and have the required qualifications. Training was delivered, at a level that catered to the better-educated trainees. which possibly further disempowered the local, untrained masons included among trainees. After training the better-qualified masons tended not to remain in villages. They migrated to cities, or even to neighboring countries. Thus, the only project-trained personnel active in communities after training were the Sanitarians who were already inclined towards sanitation business activities.

Low-cost pit reinforcements of bamboo made locally.—Dusun Mantren/*Bojonegoro*

Project-trained local mason's production in response to community demand, using capital provided by Kepala Desa, Kemamang Balen/*Bojonegoro.*

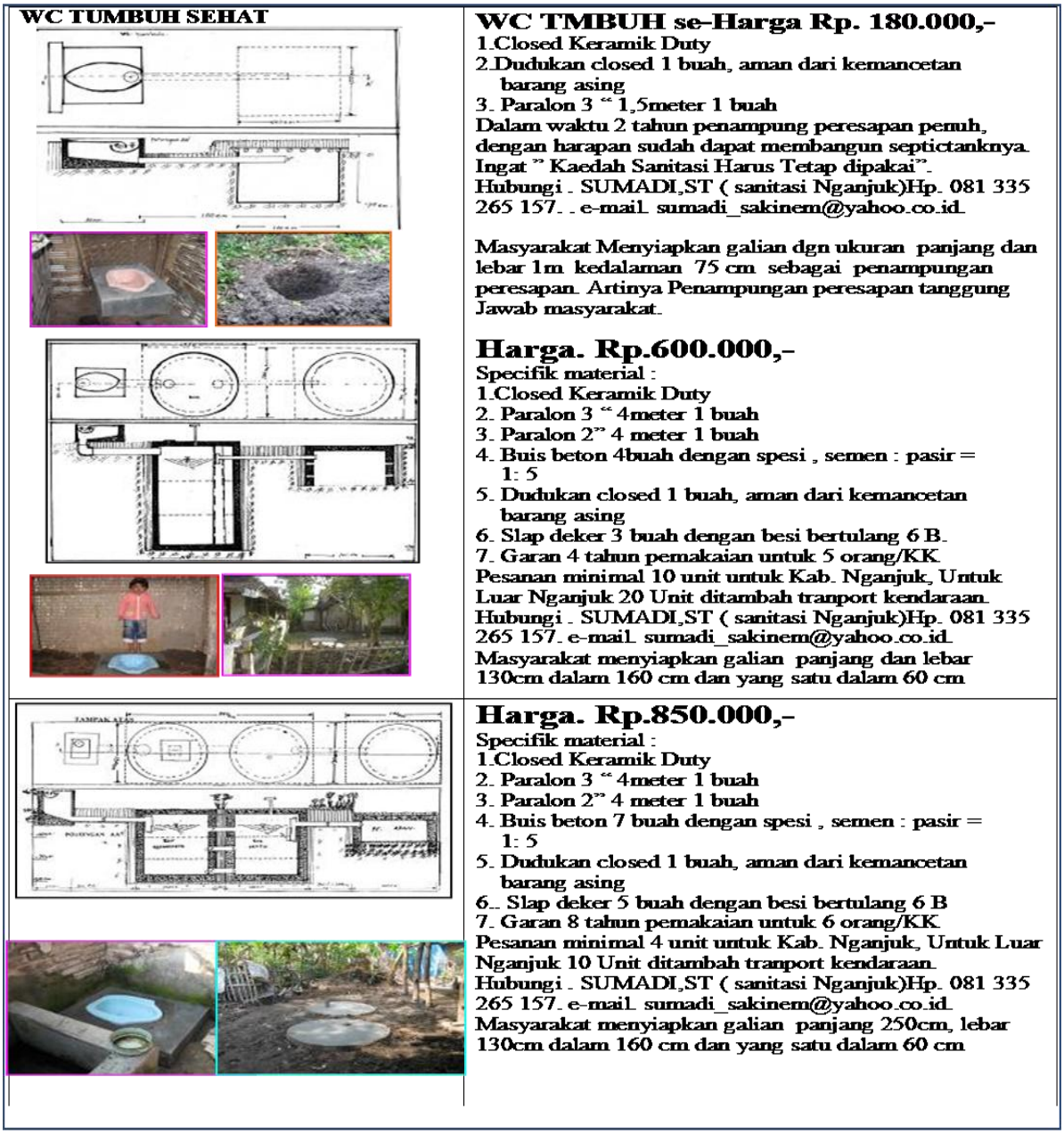
Box 7 shows an example of what one such highly successful entrepreneur is offering. Local masons in *Ngganjuk* and *Kediri* districts were found to be using this promotional handout in their interactions with prospective customers. The handout in Bahasa Indonesia, designed by a sanitarian-turned entrepreneur, illustrates how choice has expanded for poor consumers in some districts, filling the gaps between options T4 and T5 of the ICC (Figure 20). This home-grown ICC showing progressively upgradable options for the kind of latrine the poor consumers want (ceramic, water seal closet with simple leaching pit), for Rp.180,000 (US$20), provided the customer contributes labor for digging the pit.

The handout informs that the basic model's pit will fill in two year's time, by which time the owner can upgrade to getting a septic tank and have the existing closet connected to it for additional cost. Alternatively, the customer may choose to dig bigger pits and buy the Rp. 650,000 or the Rp. 800,000 model with septic tanks of larger capacities. The entrepreneur is

offering product and service guarantees of two, four, and eight years for the three models, discounts for orders of 10 or more units, and different rates for out-of-district orders. For each option, he lists the brand and cost of materials that will be used, specifies the size of the pit to be dug by the household, and provides contact telephone and e-mail information of the entrepreneur. The single-page handout is a good example of attractively packaged information on options, which makes it easy for consumers to make their investment decision.

Village leaders had stepped in, in Jetis and Mantren/*Bojonegoro,* Kare and Gruwul*/Madiun*, Jeding/*Blitar* and Tambak*/Nganjuk*, with crucially needed financing support to consumers or to service-providers like these, using village funds from poverty alleviation or other programs. This has enabled poor consumers to pay for their facilities in installments or make payments after harvest or fishing seasons.

BOX 7: NEW OPTIONS AND PRICES THAT POOR CONSUMERS ARE LOOKING FOR



7.6 Low-Cost Sanitation Options Not Yet Widely Disseminated

The Informed Choice Catalogue (ICC) was designed as a communication aid to be used by masons in explaining options to customers and for working out cost estimates based on customer preferences for materials underground, on the ground and over the ground (see Figure 20). The ICC was meant to be provided to masons trained by the project, but its production was delayed and it was not available at the time of training. WSP supplied copies to District Health offices later, with agreements about having them distributed to the trained masons through the Puskesmas outreach staff.

The action researchers found that local masons in the 80 communities had neither received nor ever seen the ICC. A few Puskesmas staff, Sanitarians, and Bidan desas had received them, but being unclear about their purpose, had not used them with community members. Information on low-cost improved sanitation options therefore had not reached the community, except in the nine percent where trained masons were found.

The researchers showed the ICC to focus groups in NOT ODF communities, demonstrated its use to local masons and left behind one copy in each NOT ODF community. Of the 40 NOT ODF communities, no interest was shown in the ICC in 10 percent of communities, (these were on a riverbank). In general no community showed any interest in the dry pit options in the catalogue. However, in 21 out of 40 NOT ODF communities, consumers showed keen interest in the pour-flush options, and in 18 of those communities immediately initiated discussions with local masons about building one or more pour-flush options from the ICC. At the time of writing this report, three months later, information has been received of many new constructions in those communities.

III. Institutional Roles for Rural Sanitation Improvement

The Health Ministry is the institution responsible for policies and overall strategic direction setting for the rural sanitation and hygiene sector in Indonesia. The country being highly decentralized, the central government ministries do not have direct control of program implementation in the provinces and districts. District governments have full authority and responsibility to plan and implement development programs including rural sanitation and hygiene improvement. This was the rationale underlying the project's approach of partnering with district government institutions for implementation, thereby influencing the way local governments would continue to manage rural sanitation programs beyond the project period.

In a sector accustomed to decades of subsidized latrine package distribution and health education, the project introduced new approaches like sanitation demand creation, market supply improvement, and enabling policy and institutional environment building. Indonesia's 2008 national total sanitation strategy, the *Sanitasi Total Berbasis Masyarakat* components reflect the same approaches. There are thus institutional imperatives for local governments to adopt, internalize, and develop competencies in executing the approaches introduced by the project. However, existing human resources and skill profiles in provincial and district health agencies are not geared to manage all the new functions.

The project provided Resource Agency (RA) consultants to work hands-on with district government personnel to build institutional capacity. Market research and communication development agencies were contracted to provide district governments with bases for decision-making regarding supply improvement and mounting behavior change communication campaigns respectively.

The way in which project technical-assistance-flows have influenced results on the ground was observed in this study. From the findings inferences have been drawn about institutional strengths and weaknesses to plan, implement and monitor programs to achieve national rural sanitation goals (i.e., Indonesia ODF by 2014) and the country's sanitation MDG targets. The findings and implications were discussed with district, provincial and national government stakeholders for the future of rural sanitation programs in Indonesia. The results of those discussions are reported in this chapter.

8.1 Capacity and Incentives for New Roles and Program Approaches

The action research results indicate that the project has had reasonable success with building district capacity for community level demand creation through on-the-job CLTS triggering training. Through eight to nine months of technical assistance to each district, and periodic

cross-district learning analysis and strategic planning workshops, district governments have also gained experience and knowledge about improving their enabling environments (program policies, institutional practices, planning, monitoring and evaluation methods) and enhance program financing. There is sufficient evidence in district budgets and strategic plans now to believe that the improved policies and practices for rural sanitation program will be sustained beyond the project. However, the *market supply improvement* component has left the local government institutions largely untouched.

During the project, WSP contracted market research and communication design agencies to develop and implement a marketing strategy and Behavior Change Communication (BCC) campaign. There has been limited acceptance and utilization of the campaign materials by local governments. The marketing strategy trained masons and Sanitarians in every district, but due to mis-targeting, locally resident masons in the communities, who are the principal sources of advice and services to consumers for construction did not benefit from this training. Thereafter the marketing strategy was modified and WSP is currently helping and mentoring sanitation entrepreneurs to improve local sanitation supply chains for delivering affordable sanitation options to consumers.

Post-project in other provinces, WSP will not be managing the sanitation marketing function, which needs to become an institutional responsibility. However, from the project experience in East Java, it is unclear how local government Health offices will be able to take on this management task,[30] since the action research found that they still do not consider sanitation marketing activities as part of their sanitation programs. Nor do they have the budgets, skills and experience of managing such activities. This presents an anomaly because demand creation and availability of sanitation improvement options have to mutually reinforce each other. Creating demand can be futile or even counter-productive if local markets do not offer affordable and desirable options to all classes of consumers. Rural program managers cannot afford to neglect either demand creation or supply improvement facilitation.

Table 19 analyzes the current situation in terms of institutional capacity and incentives currently available for four critical aspects of rural sanitation programs. It shows that except for the function of demand creation through CLTS triggering, district governments have little incentive or capacity at present for the rest of the aspects of rural sanitation programs.

[30] A similar situation was found in Vietnam, where sanitation marketing interventions piloted by International Development Enterprise (IDE) did activate rural sanitation markets and three years later service providers continue to thrive and access to improved sanitation had grown by 15 percent. However, local governments have not scaled it up or allocated budgets to support long-term sustainability of sanitation marketing. Nor have any of the IDE pilot areas become Open Defecation free (Sijbesma and Devine, 2010).

TABLE 19: CURRENT DISTRICT GOVERNMENT INSTITUTIONAL CAPACITY AND INCENTIVES FOR ESSENTIAL COMPONENTS OF RURAL SANITATION PROGRAM

Functions Required for Total Sanitation Outcomes	Is There Institutional Capacity to Support This Function?	Is There Institutional Incentive to Support This Function?
Public demand creation for improved sanitation and hygiene facilities	• Ministry of. Health (MOH) agencies have the necessary community outreach capacity and the official mandate for improving rural sanitation and hygiene. • CLTS facilitation skills of outreach staff still need to be strengthened for high quality CLTS processes and outcome monitoring.	• No institutional incentives in the system for good demand creation by staff. Institutional CLTS facilitators given targets for numbers of communities to trigger, but no reward for ODF outcomes. • In districts with *Bupatis* supportive of project approaches, Health agencies have been given targets for achieving specific number of ODF villages and sub-districts. This provides institutional accountability for ODF outcomes, but the pressure of achieving targets can damage the quality of processes, and make it government-led rather than community-led Total Sanitation.
Managing the collective community behavior change process	• MOH has the mandate for managing rural sanitation and hygiene behavior change, however. • Professional skills and budgets in Health institutions for behavior changing interventions are limited (*e.g. Health Promotion sections have budgets for communication products production and dissemination, but not for formative and consumer research, and professional communication design services based on research.)*	• No institutional incentives available for government agencies achieving desired community behavior change outcomes. • Political leaders (Bupatis, legislators) often reward communities that achieve collective behavior change and become ODF, but not local government agencies that facilitate the change.

TABLE 19 (CONT): CURRENT DISTRICT GOVERNMENT INSTITUTIONAL CAPACITY/ INCENTIVES FOR ESSENTIAL COMPONENTS OF RURAL SANITATION PROGRAM

Functions Required for Total Sanitation Outcomes	Is There Institutional Capacity to Support This Function?	Is There Institutional Incentive to Support This Function?
Scaling up/upgrading access to facilities and services through local market supply improvement	• As this is not considered a public sector institutional function, there are no institutional incentives for this purpose. • In fact, there are implicit disincentives, as currently the national government and development partner agencies are hotly debating whether Sanitarians working on the side as private sanitation entrepreneurs constitutes a "conflict of interest." • District policymakers need to recognize that they have a facilitating role for local sanitation market development through local regulations and directives such as preventing hardware subsidies, which distort consumer demand for sanitation thereby inhibiting growth of sanitation entrepreneurs.	• Government agencies at all levels do not see this as an area where they have any role to play. • Within government institutions there is a lack of professional skills for marketing management, and lack of budgets for helping local market development for rural sanitation. • Individual capacity for sanitation entrepreneurship exists among some Health outreach staff (Sanitarians). With project-provided training and mentoring 10 entrepreneurs have developed supply networks in 14 districts of East Java. More than half are Sanitarians doing this in their private capacity.
Sustaining ODF communities and behaviors	• No institutional functions, methods and approaches for evaluation of sustainability of ODF outcomes have yet been established. • If a policy decision is made to monitor ODF sustainability, Health agencies have the capacity to fund and implement periodic sustainability checking drives. • They will need technical assistance to develop tools and mechanisms for the purpose,	• No institutional incentives yet. • The national government needs to decide what kinds of incentive systems to introduce in the rural sanitation sector to sustain behavioral outcomes aligned with the national goal of Indonesia ODF by 2014. • The JPIP awards in East Java are serving as a powerful institutional incentive to show desired outcomes. Similar models need to be explored in

	which can be provided with funding from the national government and/or development partner agencies.	other provinces.

8.2 Capacity Building and Incentives Needed to Improve Performance

From the action research study and project implementation experience in East Java, a series of specific recommendations can be made about how to equip district and provincial government institutions better to take on the rural sanitation challenge. In Table 20, the first column summarizes how the project was implemented at province, district, sub-district and community levels in East Java and what results were observed. Column 2 lists recommended changes or additional actions that could lead to better ODF achievement rates, based on action research findings.

Steps in Table 20 are presented chronologically, as they need to happen in a province. Other countries starting rural sanitation programs at scale may be able to use the sequence in Table 20 to identify institutional functions necessary at province, district, sub-district, and community levels. A recommended program implementation sequence for the use of districts to scale up a TSSM project-like approach is summarized in Annex 2.

TABLE 20: INSTITUTIONAL ROLES AND IMPLICATIONS–BASED ON ACTION RESEARCH FINDINGS

Institutional Roles in Project Implementation in East Java during 2007-2010	**What could be done differently to Improve Triggering–ODF Conversion Rate** ***(Modifications/additional actions suggested are in italics)***
PROVINCE LEVEL **<u>To generate institutional demand for TSSM-type intervention</u>** • Promotion of project benefits and conditions for participation to all District governments, by GOI and WSP. • Demand-driven approach, with Bupatis submitting Letters of Interest to WSP/provincial BAPPEDA/ Health Office	**PROVINCE LEVEL** **<u>To generate institutional demand for TSSM-type intervention</u>** • Promotion of project benefits and conditions for participation to all District governments, by central government and *Provincial Health office* • Demand-driven approach with *Bupatis* submitting Letters of Interest to *Provincial BAPPEDA/ Health Office* and commitment to meet operational costs of

and commitment to meet operational costs of project implementation.
 	
<u>To assess existing consumer demand and improve supplier capacity</u>
 	
• Market research and formative research done by A.C. Nielsen.
• One-Stop-Shop Marketing strategy developed and masons and Sanitarians trained in delivering low-cost sanitation options
  o However, the marketing strategy was developed and implemented starting mid-2009, when CLTS triggering had begun in 21 out of 29 districts between the end of 2007 and mid-2008.
  o Trained service providers were unavailable to offer advice and options to consumers in triggered communities until mid-2009.
  o Even after that, consumers lacked informed choice. Trained masons were found in less than nine percent Action Research study communities. Local masons resident in communities, who are the principal sources for information for consumers, had largely missed the training.
 	
<u>Promoting sanitation behaviour change through mass media</u>
 	
Behavior Change Communication (BCC) strategy and Communication tools menu developed by WSP from formative research - BUT limited pick-up and application of communication products from the menu by district Health offices (Environmental Health Sections), who produced and used their own promotional materials not based on formative research. The study found one video film from the project menu used in seven out of 80 communities, and project posters were seen in four communities only.
	program implementation.
	
	<u>To assess existing consumer demand and improve supplier capacity</u>
	
	• Rapid market and consumer research to identify provincial SaniFOAM sanitation practices, what kinds of sanitation facilities poor and non-poor households in the districts want and are willing to pay for and why *(in new provinces, using local research capacity and instruments developed by Nielsen and/or Action Research study)*
	• ***Marketing Strategy*** *for new provinces developed and implemented based on market assessment findings <u>before starting CLTS triggering</u> i.e.*
	  o *Identification of low-cost sanitation options*
	  o *Identification of feasible price and payment options*
	  o *Local information & service providers in all districts identified and equipped to deliver those options (e.g. Informed Choice Catalogues / Handouts distributed to them, along with market research findings about what consumers want to pay for.*
	
	<u>Promoting sanitation behavior change through mass media</u>
	• *Provincial and District Health offices (**Health Promotion Section**) to be assisted by communication design agencies to develop*
	• *formative research-based BCC messages and materials. Ownership and utilization of such materials by Local Governments likely to be higher this way.*
	
	*Donor agency funds could be used to provide professional communication agency services to **Health Promotion** Sections of District Health Offices for this purpose.*

TABLE 20 (CONT): INSTITUTIONAL ROLES AND IMPLICATIONS–BASED ON ACTION RESEARCH FINDINGS

Institutional Roles in Project	What could be done differently to Improve

Implementation in East Java during 2007-2010	Triggering–ODF Conversion Rate *(Modifications/additional actions suggested are in italics)*
DISTRICT LEVEL: PRE-TRIGGERING **<u>Demand creation for CLTS triggering intervention :</u>** • Road shows by WSP to gather intersectoral local government (LG) support for project approaches. • No approaches made to Bupatis • Household latrine subsidies freely available from non-Health Government programs (both LG and national), and private sector (CSR funding) during project implementation period. Each district decided its own strategy to scale up – some clustered and phased sub-districts, some triggered all sub-districts simultaneously. BUT strategy was not based on the need to tailor triggering and follow-up approaches to specific community characteristics.	**DISTRICT LEVEL: PRE-TRIGGERING** **<u>Demand creation for CLTS triggering intervention :</u>** • Road shows by *Provincial Health office* in new districts (outside East Java) to gather intersectoral LG support for TSSM approaches. • *Divide district into zones/clusters of sub-districts according to* ***types of CLTS triggering strategies and follow-up support that will be needed*** *(geographic /topographic factors/nearness to water bodies/remote areas with access and transportation problems /swamps etc.)* • *Plan schedule of interventions and logistics to cover all zones/clusters accordingly.* • *Obtain Bupati's commitment and support for district-wide "zero household subsidy" approach, <u>before</u> starting community level triggering interventions*. *Obtain intersectoral agreement on converting subsidy funds available in the district to outcome-based incentives for communities achieving and staying ODF.*
SUB-DISTRICT LEVEL: PRE-TRIGGERING : **<u>Demand creation for CLTS triggering intervention</u>**: • Road shows/dissemination of project benefits and conditions to Village Heads by Camats or Puskesmas, and Letters of Interest (LOI) invited from Village Chiefs. LOIs not consistently sought in all districts and sub-districts. • CLTS triggering schedules drawn up by District Health Office/Puskesmas. NOT necessarily based on LOIs submitted by Village Chiefs. • Village LOI submission requirement ignored in Phase 2 and some Phase 3 districts.	**SUB-DISTRICT LEVEL: PRE-TRIGGERING** **<u>Demand creation for CLTS triggering intervention</u>** : • *Camats/Puskesmas Heads to use specific local strategies to elicit demand from Village Chiefs for CLTS triggering intervention to become ODF, and their support for organizing the event (e.g. sparking competition among villages to become ODF, recognizing Village and Dusun chiefs for ODF achievement, spreading understanding and awareness among Village chiefs about why "no subsidy approach" is essential for achieving and sustaining ODF communities etc.)* • *Puskesmas draws up community triggering schedules based on demand expressed by Village chiefs, e.g., LOIs received or other tangible evidence of expressed demand.* • *If there is no demand from village leadership there should be no triggering intervention.*

TABLE 20 (CONT): INSTITUTIONAL ROLES AND IMPLICATIONS–BASED ON ACTION RESEARCH FINDINGS

Institutional Roles in Project Implementation in East Java during 2007-2010	What could be done differently to Improve Triggering–ODF Conversion Rate *(Modifications/additional actions suggested are in italics)*
COMMUNITY LEVEL: DURING TRIGGERING • Triggering in only one Dusun per village, in consultation with Keapala Desa. • Village Chiefs took initiative to mobilize Dusun participation, and invited representatives from other Dusuns who will be enthused to repeat the triggering in their respective communities. BUT they did not consistently do this, Those that did, had QUICKLY ODF outcomes. • Triggering done sometimes with only selected sub-groups or a few households, rather than with wide community participation. Result – ODF status not reached. • Triggering mixed up with advice on latrine building in some communities. – These communities tended not to reach ODF outcomes. • CLTS triggering tools used by facilitators in 95 percent of study communities. But 10 percent of communities "can't remember the process." Multiple CLTS tools used in 40 percent of communities and only one CLTS tool in 14 percent. CLTS tools were not consistently used in community empowering ways. This was found to be true more often in case of facilitators not trained by the project.	**COMMUNITY LEVEL: DURING TRIGGERING** • Triggering in only one Dusun per village, in consultation with Kepala Desa. • *Pre-triggering planning with Village and Dusun Chiefs about how to maximize participation by all community sub-groups, men/women/children, and how to spread the change movement from the first triggering event in one Dusun to other Dusuns.* • *Triggering only in appropriate season and time of day when most men, women, children can freely participate.* • *Cancelling and re-scheduling triggering if only a few people or only the leaders present.* • *NOT triggering if people present only want to discuss how to get household latrine subsidy.* • *Facilitators using a sequence of CLTS triggering tools tailored to community's location and prevalent OD practices – in community-empowering ways (implications for institutional training)* • *CLTS facilitators never telling people to build latrines. It must always be their own idea and decision.* • *At the end of the triggering process, if asked, CLTS facilitators may provide contact information of nearest sanitation services supplier/entrepreneur.* • *Deferring provision of information on sanitation improvement options till the first follow-up visit.*

COMMUNITY and SUBDISTRICT LEVEL: POST TRIGGERING
 	
• Community monitors changes in sanitation access, with periodic monitoring visits by Puskesmas staff. Both focus mainly on new latrines built by latrine-less households.
• ODF verification by Puskesmas-organized teams. 100 percent household access to improved sanitation checked during verification. No other means of behavior
	COMMUNITY and SUBDISTRICT LEVEL: POST TRIGGERING
	
	• *Besides new latrine building, LG functionaries need to monitor:*
	  ○ *Is information on feasible and affordable sanitation options reaching community households?*
	  ○ *Are consumer-supplier links working?*
	  ○ *Are local suppliers able to fulfill orders?*
	  ○ *Are poorest households able to find affordable sanitation solutions?*

change checking, • Official ODF declaration by Local Government one to five months after verification. • LG monitoring ceases after ODF verification. 20 percent LATE ODF communities found to have	○ *Is the village leadership helping households gain access to improved sanitation?* ○ *Is the community monitoring behavior change? Have they set up methods to check and prevent continued OD?* • *Puskesmas/LG functionaries to:* ○ *Facilitate contact between sanitation suppliers and consumers.*

TABLE 20 (CONT): INSTITUTIONAL ROLES AND IMPLICATIONS–BASED ON ACTION RESEARCH FINDINGS

Institutional Roles in Project Implementation in East Java during 2007-2010	**What could be done differently to Improve Triggering–ODF Conversion Rate** ***(Modifications/additional actions suggested are in italics)***
• ongoing Open defecation, and five percent slippage found in QUICKLY ODF communities. • LG functionaries not monitoring any other aspect such as availability of affordable product and service options or sustainability of ODF behaviors. Not providing facilitation /liaison/ information support for overcoming obstacles such as a lack of financing options for consumers/ lackof capital credit for service providers.	○ *Advise village leaders/Committees about sources of funds that can be tapped for sanitation improvement* ○ *Provide every triggered community's Sanitation Committee with an* ***Informed Choice Catalogue*** *(either project-developed or from a local sanitation entrepreneur), and contact information about the nearest trained mason/sanitation entrepreneur.* • ODF verification and declaration.
COMMUNITY/SUB-DISTRICT LEVEL: POST ODF • No institutional action at present. Communities left alone after ODF verification and declaration. Communities have no external incentive thereafter to sustain their ODF behavior.	**COMMUNITY/SUB-DISTRICT LEVEL: POST ODF** • *Annual random checks of previously verified ODF communities by Puskesmas staff* • *Slippage reporting to District Health Office and withdrawal of ODF status of communities found to have slipped. (May need institutional incentives for slippage spotters and reporters).* *Re-verification at community's cost, if they wish to regain ODF status.*

DISTRICT LEVEL: POST ODF No institutional action at present	**DISTRICT LEVEL: POST ODF** • *Annual updating of ODF communities' records, based on ODF verification data and slippage reporting data.* • *Annual budget for ODF Sustainability checks.* *Establish and fund ongoing sanitation access monitoring data flow and MIS from community to sub-district to district to provincial database.*
PROVINCE and DISTRICT LEVEL: ONGOING MANAGEMENT • Periodic training programs for CLTS facilitators. • Periodic program monitoring meetings with District Health Officers. Annual cross-district Stakeholder Learning Review to share learning, compare progress and district program performance (designed and conducted with WSP technical assistance and TSSM funding).	**PROVINCE and DISTRICT LEVEL: ONGOING MANAGEMENT** • *Revise content and methods for institutional training being provided to CLTS facilitators, in the light of Action Research findings. Emphasis on* ***tailoring triggering approach to community characteristics and location.*** • *Establish CLTS process Quality Indicators for institutional assessment of community level triggering, follow up, and monitoring processes* • *Annual budget allocation and organization of institutional CLTS facilitators' refresher training, based on data consolidated from the application of* ***Process Quality Indicators Checklist*** *(see page 8) at every triggering event.* • *Reward facilitators when communities they trigger/monitor become ODF. Recognize and publicize best practices and innovations used by facilitators at cross-district stakeholder learning workshops.* Annual cross-district stakeholder learning review to share learning, compare progress and district program performance with *Provincial government* funding)

8.3 Follow-up Support: Key to Progress Towards Sustained ODF

The study found evidence of little institutional follow-up support being provided to triggered communities. Follow-up is not regular and even when it happens, it includes little more than collecting information on new constructions. There is no structure for follow-up visits, nor clarity about what should be targeted for follow-up and how such follow-up should be handled. Although communities recognized that the most important push towards ODF outcomes came out of coordinated and collaborative follow-up by community institutions working together with implementing agency personnel, in most cases the triggered communities themselves were the initiators of such follow-up. CLTS facilitators should receive skill building to identify follow-up support needs of different types of communities, and be provided with clear guidance on what to look for and how to follow up during post-triggering visits.

Moreover, the study highlighted the risks to sustainability of behaviors and facilities after communities are declared ODF that arise from the complete lack of institutional monitoring. If local government budgets cannot cover sustainability monitoring in all ODF communities, at least a random check of 15-20 percent of previously certified ODF communities needs to be budgeted for every year. Based on sustainability check results appropriate incentives and sanctions can be instituted to reinforce community motivation to sustain desired behaviors. Based on this study's findings, a structured checklist designed to improve CLTS triggering and follow-up quality, and sustainability checks, is suggested in Table 21 below.

The checklist:

- Can be used by facilitators for self-evaluation.
- Should be used by Provincial or District Health Office for collecting information as basis for annual refresher training of institutional facilitators.

TABLE 21: CLTS PROCESS QUALITY EVALUATION CHECKLIST—RECOMMENDATION BASED ON STUDY FINDINGS

Step	Process Quality Evaluation Indicators ***(Answers obtained to questions below can be scored to get overall quality assessment. <u>The more of the conditions met at each step, the better is process quality, and therefore the greater the likelihood of success)</u>***	**Scores Obtained and Implications for Supervision/ Training of CLTS Facilitators**
	PRE-TRIGGERING	
1	**<u>Decision to trigger or not trigger</u>** : <u>How many of the following conditions were met?</u> 1. Village Chief had asked for triggering. 2. Village Chief had agreed to mobilize all community sub-groups for participation. 3. On the agreed day at least 30 or more men/women/children of all economic classes were present at start of triggering. 4. They were ready to participate in the process knowing that no latrines/aid was being provided. *If all conditions are met, triggering is likely to be successful. If conditions 3 and 4 are not met, it may be better to postpone triggering and work with community leadership to create more favorable conditions first.*	

TABLE 21 (CONT): CLTS PROCESS QUALITY EVALUATION CHECKLIST— RECOMMENDATION BASED ON STUDY FINDINGS

Step	Process Quality Evaluation Indicators ***(Answers obtained to questions below can be scored to get overall quality assessment. <u>The more of the conditions met at each step, the better is process quality, and therefore the greater the likelihood of success)</u>***	Scores Obtained and Implications for Supervision/ Training of CLTS Facilitators
	TRIGGERING	
2	**<u>CLTS tools used:</u>*** <u>How many of the following conditions were met?</u> 1. Defecation practices mapped on the ground (*NOT on paper*) with active participation of women, men and children present. 2. Transect walk did cover currently used OD sites in community, to generate disgust and shame. *3.* Simulation of fecal pollution of water, preferably at waterfronts. (*Essential in communities that wash, bath, and defecate in water bodies.)* *4.* Contamination routes traced, for dry and wet seasons. *(Especially relevant in non-river-defecating communities.)* 5. Feces volume calculation done to expose implications of OD by a few or many for all. 6. Discussion about how to confine feces using simple diagrams and NOT by promoting latrine types. ** See Kar and Chambers (2008), <u>Handbook on CLTS</u>. PLAN- IDS*	
3	**<u>Triggering effectiveness</u>**: <u>How many of the following happened at the end of triggering?</u> 1. One or more natural leaders emerged. 2. Discussions about stopping OD in their community by a specific date were started. 3. Action planning to become ODF was begun. 4. Identification of sanitation committee members was begun. 5. Information on sanitation options/service providers was requested. • *If these things did not happen, triggering has failed.* • *Try to find out what is obstructing build up of momentum to ignition.* *Use the information to plan re-triggering at a later date, using strategies to address specific obstacles identified.*	

	POST-TRIGGERING	
4	**<u>Follow-up Visit 1 Week after Triggering</u>**<u>. How many of the following are happening?</u> 1. An **Informed Choice Catalogue/handout** is available in the community? 2. The Open Defecator households have seen the handout. • *If not, show them a copy of the ICC and leave it with the Sanitation Committee, asking them to spread the information, OR* • *Inform them about trained sanitation providers who can offer sanitation improvement options*. *3.* Contact between community households and trained masons or sanitation entrepreneurs has been established. • *If not, facilitate contact.* *4.* Community leaders/Sanitation Committee members are aware of sources of financing that can be tapped, for consumers or sanitation providers.	

TABLE 21 (CONT): CLTS PROCESS QUALITY EVALUATION CHECKLIST—RECOMMENDATION BASED ON STUDY FINDINGS

Step	**Process Quality Evaluation Indicators** ***(Answers obtained to questions below can be scored to get overall quality assessment. <u>The more of the conditions met at each step, the better is process quality, and therefore the greater the likelihood of success)</u>***	**Scores Obtained and Implications for Supervision/ Training of CLTS Facilitators**
4	5. The Community started sanitation access monitoring. • *Check evidence of monitoring method/map/records kept.* • *If not kept, help them start with Welfare Classification of households and improved/unimproved classification of facilities.* • *Show good examples of social map/tables from other communities).* 6. The community has started behavior monitoring (checking & preventing OD)? *Find out what methods used and whether any OD-ers have been caught/prevented yet.*	
5	**<u>Follow up visit 1 month after triggering - and periodically thereafter till ODF :</u>**<u> How many of the following are happening?</u> 1. The monitoring methods/tools introduced are in use. Being updated regularly. 2. Consumer-supplier-service provider links are working. 3. Methods to detect and prevent Open Defecation are being used. 4. Financing obstacles are being addressed.	

	• *If not happening, provide information/ideas/examples from other communities to help resolve bottlenecks.*	
6	**<u>Random check visit - After ODF verified and achieved</u>** 1. Observe household surrounds and community environment (riverbanks, drains and streams, fishponds, irrigation canals, crop fields, ravines) for evidence of OD. 2. Check latrine ownership records to confirm 100 percent ownership of improved sanitation. 3. Observe a random 10 percent sample of permanent and semi-permanent household facilities – how well the are used and maintained and if they are still safe/improved. 4. Ask how OD is detected and dealt with, if found. 5. Ask who was detected last and what action was taken in response (if no one was ever caught, suspect lack of behavior monitoring). 6. Discuss with village and hamlet chiefs how they can prevent community slipping back into OD and losing ODF status. *Note and report new learning gained back to Puskesmas/sub-district/other facilitators.*	

IX. Conclusions, Implications, and Recommendations

This study was undertaken with the primary objective of improving the "success rate of CLTS triggering at scale," where success was defined as the achievement of ODF status by communities, and being able to sustain that status over months and years beyond ODF declaration. The focus therefore was on identifying what factors in planning, implementation and monitoring help ensure that communities achieve and remain ODF over the longer term.

It is not possible to establish the relative importance or ranks of all factors that contribute to successful triggering in quantitative terms without doing multivariate statistical analysis, which was beyond the scope of this study. However, content analysis of the information gathered was sufficient to establish a variety of the most important influencing factors—some of which could have influenced other factors progressively with snowballing effects.

The range of influencing factors identified in this study emphasizes that success is more than a matter of getting the CLTS process right with the best-trained facilitators. While high quality CLTS processes are essential for starting the collective behavior change movement, a variety of community characteristics and environmental factors were found to be associated with and likely influenced the way triggered communities responded to the challenge of becoming and staying ODF.

9.1 Key Findings and Conclusions

1. QUICKLY ODF communities represent the most efficient model for scaling up sustainably. Communities that achieved ODF status within two months of triggering achieved markedly faster and higher access gains and a higher percentage of them remained ODF than communities that took many months to achieve ODF status. The pace of change may indicate the extent of 'community ignition' achieved.

Progress monitoring systems and records in 80 communities showed that QUICKLY ODF communities also bested all other categories at behavior monitoring, and detecting and sanctioning violators of community commitment to stop open defecation. The sanitation facilities built for becoming QUICKLY ODF satisfied the requirements of "improved sanitation" by JMP definitions, but were of lower cost and quality than in LATE ODF and NOT ODF communities (as observed in 574 homes in 80 communities).

Ninety-five percent of the QUICKLY ODF communities had sustained their behavior change four to 28 months after ODF declaration, as evidenced from environmental observation, latrine ownership records, reported usage and observation of maintenance of facilities.

2. ODF outcomes that materialize after many months should be subject to periodic re-checks. Only 80 percent LATE ODF communities reported remaining ODF. Because sanctions against open defecation (particularly defecation into rivers) were rarely enforced, the actual percentage that remains ODF could be even lower. Possibly, 20 percent of the LATE ODF communities had never really achieved ODF status, although 100 percent households had gained access to improved sanitation. LATE ODF communities had focused on monitoring latrine ownership rather than on behavior change to eliminate open defecation.

3. Implementing agencies can effectively influence most factors associated with achievement and sustainability of ODF outcomes for scaling up rural sanitation. While a number of factors can be associated with ODF outcome achievement and sustainability, no single factor out of those listed in the charts in the Executive Summary (page 8) guaranteed ODF achievement. It is also not possible to rank them in terms of importance, although some are associated and reinforce each other. QUICKLY ODF communities displayed the characteristics in column 1. The table groups factors associated with ODF achievement and sustainability of ODF outcomes in column 1. Factors associated with poor ODF achievement and low sustainability of ODF outcomes are summarized in column 2.

While local governments have no control over some of these factors, such as high social capital in a village (factor #1), they can directly influence a number of others—from triggering in response to demand, to access to information about affordable latrines—and support factors such as access at easier payment terms and regular community monitoring, to cumulatively enhance the rate of ODF outcomes.

4. ODF and NOT ODF communities were significantly different in terms of proximity to water bodies. They were not significantly different in terms of topography (hills, plains, coastal regions), soil types (sandy, rocky, swampy), or proximity to forests and access to markets for sanitation supplies. Nor were notable differences found in terms of exposure to behavior change communication messages, which were reportedly seen or heard in less than 10 percent of all communities. ODF and NOT ODF communities were however significantly different in terms of proximity to water bodies. In all 20 districts, riverbank, beach, or lakeshore communities had the lowest sanitation access rates and were significantly less likely to achieve ODF status. The difference was statistically significant.

This could be due to a strong preference for defecation into water bodies; a practice recalled in focus group sessions as “clean, hygienic, pleasant, convenient, free of cost” and one that has been a “socially accepted tradition for many generations without problems.” Even latrine owners defecate into water bodies from time to time.

5. Open defecator households in rural East Java have the ability and opportunities, but often lack the motivation to acquire and use latrines instead. Open defecator and sharer households in all 40 NOT ODF communities reported that they had easy access to markets for sanitation products and services, and that they commonly owned permanent or semi-permanent homes, color television sets, either bicycles or motorbikes, and more recently cell phones. Some of these assets, costing much more than basic models of improved latrines, were acquired through installment credit or deferred payment arrangements matched with seasonal surpluses in income. In ODF communities, the poorest had invested up to Rp. 300,000 (US$33) in building their starter-level permanent latrine, and Rp. 750,000 (US$82) for pour-flush systems offered on installment credit. Thus, improved sanitation facilities do not appear to be beyond the means of the rural poor in East Java. If sanitation improvement can be made into a higher household priority and offered on easier payment terms, open defecator and sharer households have the economic ability to acquire it in the same way.

6. Externally provided subsidies were associated with lack of ODF outcomes but community-provided subsidies were instrumental in ODF achievement. Subsidies for household sanitation are still being provided in almost all districts despite the Health Ministry's 2008 STBM strategy banning them. Although the Ministry of Health no longer provides them, subsidies are still available from local government programs and national projects for community development and poverty alleviation, as well as from the private sector's corporate social responsibility funds. In communities where a few households had received subsidy packages, collective action to become ODF was reportedly hampered by the expectations raised among the rest of more such packages becoming available, resulting in their inaction. External subsidies were never available for all households that might have warranted them, and thus had a socially divisive effect. All communities in the sample that had received external subsidy packages in any form, during or before the project period, did not become ODF, and were, in fact, still not ODF at the time of observation.

In contrast, community leaders' initiatives to enable all households to acquire the means to stop open defecation directly contributed to ODF outcomes. Examples include providing durable pit covers or low-cost latrine pans or cement from village development funds to those lacking latrines, or *gotong royong* drives to build latrines for all. The internally provided subsidies were precisely targeted, covered *all* whose behaviors needed to change, and were provided as a social solidarity measure to achieve a collective goal. The receivers reported that they felt accountable to their larger community for making the behavior change desired of them.

7. When CLTS ignited demand for improved sanitation in study communities, local markets failed to meet expectations of poor consumers. A smell-free and easy to clean pour-flush water seal latrine with ceramic pan is what the poor consumers said they really want, but found unaffordable as it costs upwards of Rp. 1 million (US$108). They were able to invest up to Rp. 300,000 (US$38) on a starter-level improved latrine, the dry pit *cemplung*, which was highly affordable but smelly and not desirable. Dry pit owners saw them as temporary measures not worth sustaining over long-term. Many non-owners of latrines

reported putting off constructing a latrine (and continuing with open defecation presumably) until they can afford the desired type.

In only nine percent of the sample communities the desired model was found to cost much less, around Rp. 750,000 (US$82), where project-trained masons had offered several reduced-cost options of the facility along with installment payment options. All poor customers in those communities had gone directly for pour-flush systems as their starter models and entrepreneurs offering such options were overwhelmed with orders. In the remaining 91 percent communities no one had seen the *Informed Choice Catalogue* of low-cost options developed by the project. Locally resident masons in the communities, who were the principal source of information to consumers, had generally missed out on project-provided training on lower-cost sanitation options and were not promoting them.

These anomalies arose out of the long delay in delivering the sanitation marketing component of the project implementation. Sanitation market research results were unavailable until two years into project implementation. The marketing strategy was developed by early 2009 and local supply capacity improvement interventions began only by mid-2009, whereas demand creation through CLTS had been ongoing since November 2007. Findings from this study suggest that reversing the sequence (that is, first understanding consumer preferences and supply capacity of local markets using market research, secondly developing pro-poor marketing strategies in response, and then using CLTS and behavior change communication interventions to generate demand while simultaneously helping local supply capacity to grow) might better accelerate sustainable behavior change. Doing this would enable both poor and non-poor consumers to invest in what they really desire, at prices they can afford, and make better-informed choices for sanitation improvement. All three factors are likely to produce more sustainable outcomes.

The conclusions above imply a need to revisit and refine the planning premises and implementation plan formulated for the next phase, when TSSM-introduced approaches expand to other provinces under a nationwide scaling up effort guided by the Government of Indonesia's *Sanitasi Total Berbasis Masyarakat* strategy.

9.2 Implications for Programming to Scale Up Achievement of "Sustainably ODF" Communities

Indonesia's continuing challenge is a persistently large rural sanitation access gap. The WHO-UNICEF Joint Monitoring Program's 2010 Update states that over 58 million people currently practice open defecation, of which nearly 40 million are in rural areas. Another 51 million people share others' latrines or use unimproved facilities, of which 31 million live in rural

areas. There is as yet no national rural sanitation program as seen in some South Asian countries.[31] Among all stakeholders there is both concern about progress not being on track to achieve the MDG target, and keen interest in learning about what will accelerate progress towards ODF communities at scale—which translates into rapid gains in access to sanitation.

Based on the action research findings, the following insights are offered for consideration by policymakers, implementers and rural sanitation program financiers.

1. **To provide the basis for planning effective behavior change interventions *at scale*, it is worth investing into market research *before* starting demand generation.** In future initiatives, it could be more productive to schedule CLTS triggering *after* provincial[32] market research results are used to:
   - Identify a *pro-poor marketing strategy* for the province, namely: a) sanitation improvement options that best match consumer preferences, b) prices and payment terms that will be affordable by all consumer classes c) the principal provider/s of sanitation advice and services to poor consumers, who need to be equipped to promote and deliver the chosen product options to them.
   - Identify gaps between what poor consumers want and what local markets are providing. Specific program interventions can then begin to improve local supply capacity simultaneously with demand creation, for optimal conversion of the generated demand into sustainable sanitation improvement.
   - Sharpen the focus of demand generation strategies (CLTS and BCC) with reliable information about the target population's motivations underlying existing sanitation and hygiene behaviors, and their abilities and opportunities to improve those behaviors.

2. **Districts hoping to scale up sanitation access sustainably need a "*subsidy funds management strategy"* that prevents subsidies from hampering the growth of both consumer demand and local supply capacity.** The unregulated and practically untargeted inflows of funds for sanitation subsidies to households from several public and private sector sources, as observed in many study communities, are a serious threat to the effectiveness of the new rural sanitation approaches. Political leaders such as *Bupatis (*Head of district) and district legislators are of key importance for resolving this problem as they have the power to regulate the use of all local funds. Strategic, evidence-based advocacy with leaders in a district before starting initiatives based on project interventions can lead to a *district subsidy funds management strategy* supportive of, or at least not

[31] For example, Government of Bangladesh's National Sanitation Campaign (2003-06) or India's ongoing Total Sanitation Campaign.

[32] Province level market research and strategy in Indonesia; may be applicable for country level in smaller countries.

detrimental to, approaches to achieve collective community sanitation and hygiene behavior outcomes.

3. **For cost-efficient scaling up, districts need to plan rural sanitation interventions by zoning, clustering, and phasing communities in response to specific conditions.** The study found evidence that CLTS triggering, follow-up support, and monitoring strategies need to be adjusted to both specific locations and conditions that affect open defecation practices and to the factors that motivate people to continue such practices, such as: riverbank and beach communities; swamp regions with high water tables, little dry land and transportation problems; or water scarce regions. Using these criteria to plan interventions by segmenting, zoning, and phasing sub-districts or clusters of villages, would make for more cost-efficient logistics for demand creation, follow up, monitoring, and supply improvement facilitation.

4. **To improve community response to triggering, CLTS interventions can be provided in response to expressed demand from village leadership.** The study identified demand-responsive CLTS triggering as a key to success. Focus groups in ODF villages emphasized that community leaders who want their villages to become ODF tend to mobilize all community sub-groups to participate in triggering, reinforce the triggering effects through community institutions and events thereafter, and monitor progress effectively. In the post-triggering period, they also ensured that all households changed their OD practices and did not slip back into them. On the other hand, uninterested and uninvolved village leaders were found mostly in the NOT ODF communities. It is therefore recommended that:
    - Sub-district government functionaries utilize available institutional mechanisms for generating a competitive spirit among village leaders and raise demand from them for interventions to help make their villages sustainably ODF.
    - Triggering interventions be made conditional to formally expressed demand from village leaders.
    - Sub-district offices or *Puskemas* (community health centers) draw up annual plans and budgets for triggering and follow-up by aggregating the expressed demand.

5. **Improve triggering outcomes at scale based on study findings about what helped and what hindered collective behavior change.** This is a task for a national sanitation strategy guidance authority, e.g., The Health Ministry's STBM Secretariat in Indonesia. CLTS facilitators' training currently being provided can be improved in the following ways:
    - Review training being provided by various government agencies and NGOs and establish quality standards for training delivery.
    - Emphasize in both operation manuals and training guidelines the need to de-link CLTS triggering from advice/information about latrine construction, and make triggering fully gender-and -socially inclusive.
    - Sensitize facilitators to the need to adjust triggering and follow-up strategies to community characteristics that determine people's ability and motivations to change behavior. Market research findings on open defecators' and sharers' motivations,

abilities, and opportunities to change behavior should be discussed in CLTS facilitators' training.
- Include information on how to encourage reliable progress monitoring by communities and clarify an adequately structured post-triggering follow-up process within the training.
- Advise local governments to allocate annual budgets for learning exchange events and refresher training of CLTS facilitators with the goal of continuing to improve triggering, follow-up, and monitoring processes.

Post-triggering follow-up can be improved in the following ways**:**

- Post-triggering processes should be given a verifiable structure by establishing and periodically checking for desired progress quality indicators/milestones[33] for success in triggered communities in order to improve institutional accountability for and the quality of follow-up. Institutional adoption of a structured follow-up process also makes it more likely to be adequately funded.
- District governments should reward facilitators for ODF outcomes in order to incentivize the quality of triggering and follow-up. This reward could be linked with independent ODF verification systems.
- Periodically check whether ODF status is sustained in already verified ODF communities through the use of established institution monitoring systems. The results should lead to sanctions like withdrawal of ODF status when communities fail to keep up ODF conditions.

6. **Open defecators and sharers can be targeted for behavior change more effectively by segmenting them.** Open defecators and sharers in forty East Java villages in twenty districts reported no major constraints in terms of their ability and opportunities to change their defecation practices. However, motivations to change behavior were weak, and open defecators and sharers had different motivations for continuing their existing practice. Open defecators *into water bodies* were generally happy with their practice, whereas sharers were frequently embarrassed and unsatisfied about sharing, but continued sharing because they lack awareness of affordable options or land to build their own facilities. In the post-triggering phase, behavior change communications to open defecators and sharers could be more effective if messages targeted them differently (see Table 23).

[33] An example of a *Process Quality Indicators Checklist* is included in Chapter 8.

TABLE 22: EXAMPLE OF SEGMENTING POPULATIONS FOR BEHAVIOR CHANGE COMMUNICATION

Where Are People Practicing Open Defecation?	Frequencies Reported in:	
	20 NOT ODF High-Coverage Communities	**20 NOT ODF Low-Coverage Communities**
A. In water bodies (river/sea/canal/mangrove/swamp/fishpond)	19	11
B. At work place (forest/orchard/crop field)	4	3
C. Other places (ditch/ravine/open pits/ bamboo grove)	5	3
D. In others' latrines, sometimes in rivers or pits (sharers)	Sharers—Found in all 40 NOT ODF communities	

Groups A, B, C, and D have different motivations for continuing open defecation or changing over to using latrines.

- Group A: Communities close to water need special strategies for behavioral change, as the majority are happy with their current practice (defecation in water bodies), and feel no need to change to using latrines. They believe "*feces are washed away/OD causes no harm to self & others/why build latrine since other villages upstream still OD in river?*" Or they have livelihoods dependent on open defecation, i.e., fish farming in ponds with hanging latrines.
- Groups B and C (not defecating in water) have different motivations. They <u>are</u> interested in pour-flush latrines with ceramic pans ("*smell-free, easy to keep clean, modern, convenient, prestigious*") but: a) believe it is too costly, starting at Rp. 800,000, b) say they will build at harvest time/when they get more money/ build jointly with neighbor, or c) cannot think of getting latrines because transportation difficulties push up costs to Rp. 3 million (one case in a swamp area)
- Group D – Like the convenience a latrine offers, but embarrassed and unhappy about having to share. Do not build and use their own latrines because of perceived high cost of construction, or because they lack land on which to build.

Groups B & C can be targeted with:

- A pricing and supply improvement strategy: improve market availability of pour-flush latrine with ceramic plan at reduced costs, within Rp. 250,000-500,000, promote the same with these consumers.

Group D (Sharer) can be targeted with:

- Same pricing and supply improvement strategy can be used, in addition to promoting the idea of a sanitary latrine within existing homes, which does not require extra land.

Group A (defecators into river/fishponds) can be targeted with special strategies addressing the underlying motivations that are obstructing behavior change, such as:

- Try to change social norms so that Open Defecation into rivers becomes socially and personally unacceptable (such as sinful/dirty/ repugnant/socially irresponsible/ selfish/damaging to others and self/ etc.)
- Get formal and informal leaders, and especially religious leaders to lead the normative change movement and apply public sanctions for those who continue with Open Defecation.
- Explore feasible alternatives for livelihoods-related Open Defecation (e.g., feeding fish).

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Annex 1: Basic Concepts and Definitions

CLTS : Community- Led Total Sanitation:

> *"This is an integrated approach to achieving and sustaining open defecation free (ODF) status. CLTS entails the facilitation of the community's analysis of their sanitation profile, their practices of defecation, and the consequences, leading to collective action to become ODF. Approaches in which outsiders "teach" community members are not CLTS. CLTS processes can precede and lead on to, or occur simultaneously with improvement of latrine design; the adoption and improvement of hygiene practices; solid waste management; waste water disposal; care, protection and maintenance of drinking water sources and other environmental measure."—Handbook on CLTS* by Kamal Kar with Robert Chambers (IDS – PLAN, 2008).

Behavioral goals targeted by the project in Indonesia: The Global Scaling Up Rural Sanitation project (inititally called TSSM) in Indonesia focused on helping rural communities to move up the sanitation ladder in steps . The behavioral goals pursued were: first to eliminate open defecation and second, to help whole communities gain access to improved sanitation, in order that the ODF status becomes more sustainable. Handwashing with soap was promoted as integral to achieving ODF status, not as a separate behavioral goal.

Open Defecation (OD) means defecating in the open and leaving the feces exposed so as to spread environmental contamination further. The feces may be left exposed to the air or into water bodies. By this definition the project systems classify open pit latrines and any latrine discharging directly into water bodies as equivalent to open defecation.

ODF: In Indonesia, the project adopted a definition for Open Defecation Free (ODF) whereby a community is considered ODF when:

1. All community households defecate and dispose of infant feces only into improved latrines (including at schools).
2. No human feces are visible in the environment.
3. The community uses sanctions, rules, or other means to check and prevent OD by anyone.
4. The community is using a monitoring mechanism to measure gains in household access to improved sanitation.

ODF Verification refers to a system of physical inspection of a community by outsiders to assess whether the community is ODF in accordance with the criteria above. A community that fulfills the criteria is said to be ODF certified.

Improved and Unimproved Sanitation as defined for MDG monitoring, is an improved sanitation facility that hygienically separates human excreta from human contact.

Shared and public facilities of any type are classified as unimproved sanitation (WHO/UNICEF Joint Monitoring Program, 2010). In Indonesia, the project adopts the same definitions, but in order to facilitate communication of the concept "hygienic separation of human excreta from human contact" words it as follows.

An ***Improved Sanitation Facility*** is one that:

1. Does not contaminate water bodies.
2. Prevents contact between human beings and excreta.
3. Prevents access to feces by flies and other insect vectors, wild and domestic animals.
4. Prevents foul odor.

The project considers a community to have achieved ***Total Sanitation*** when:

1. All households have stopped Open Defecation.

2. All households own and use improved (safe/hygienic) latrines for all excreta disposal, and maintain their facilities hygienically.
3. All households regularly wash their hands with soap after defecation and cleaning up infant feces, and before eating, feeding and handling food.
4. All households handle and store food and drinking water safely.
5. All households use safe practices for managing domestic solid and liquid waste.

These five conditions embody the five pillars of the Government of Indonesia's Community Based Total Sanitation strategy or the STBM (*Sanitasi Total Berbasis Masyarakat*, 2008). The Global Scaling Up Rural Sanitation project, which had a four-year time frame, chose to focus on only the first and second behavioral goals of the five stated above, in Indonesia. The underlying assumption was that people move up the sanitation and hygiene ladder in steps, and Goals 3, 4, and 5 should be pursued only after the first two have been reached.

Sanitation Marketing is defined as the use of marketing principles to generate demand and facilitate supply of improved sanitation, thereby increasing uptake. It includes understanding the target market using formative research and supply capacity assessment, developing behavior change communication strategies, and getting the marketing mix right, i.e., Product, Price, Place and Promotion.

Annex 2: Recommended Implementation Sequence in New Province or Small Country