



Demand-Responsive Approach to Water Supply and Sanitation

Kuto Teungah¹ is one of Indonesia's rural villages where more than 40% of its households use unsanitary open pits or defecate in fields, beaches, and water bodies.² The village's 180 households used to source their water from the river about 500 meters from the village center. Today, the village of Kuto Teungah gets its water from two public hydrants that the villagers themselves built, and with plans to set up four more before the year ends. Water through a 360-meter pipe line, which includes a 60-meter pipe bridge running over a river, flows to designated public hydrants. Basic toilets (latrines) are being built by the villagers, and they are taught better hygiene behavior.

Access to safe water and sanitation facilities is a major problem faced by Indonesia. Over 100 million of Indonesia's 220 million population lack access to safe water, and more than 70% rely on water obtained from potentially contaminated sources. Every year, more than 30% of Indonesians suffer from water-borne diseases, including cholera, dysentery, and typhoid fever, according to the Ministry of Health.³

In addition to health issues, lack of access to safe water supply means that poor households,

particularly women and children, have to spend substantial amounts of time fetching water. They also have to spend cash to purchase expensive safe drinking water. Various studies indicate that the economic losses from inadequate sanitation, poor hygiene practices, and lack of access to safe water supply are huge. One estimate puts those losses at over 2.4% of gross domestic product in 2002.⁴

Rural water supply development over the past decades has essentially been undertaken by the Ministry of Health, assisted by multilateral and bilateral funding agencies, and focusing on traditional sources such as wells and rivers. While service coverage figures indicate a significant increase since the 1980s, many facilities do not function properly and were quickly abandoned because communities were unable to operate and maintain them.⁵ Recent reports cited improper or non-use of toilet facilities built by funding agencies and relief organizations for tsunami and earthquake survivors because there were no sufficient training on proper toilet use and maintenance, and no hygiene behavioral change campaign. Beneficiaries were also not prepared to pay for operation and maintenance.

Many of the past rural water supply and sanitation (WSS) projects were lacking in initiatives that would build community capacity to plan, implement, operate, and maintain services in ways that benefit and satisfy all sections of rural societies, conditions necessary for service sustainability. Rural consumers have not consistently been offered voice and choice in decisions related to establishing and managing services and paying for them. This has led to mismatches between what the users want and get, a lack of community

“They said if you wanted a toilet, you needed to work for it. But I am too old to dig a hole or use a hoe. Instead, I made coffee for the workers. That was my contribution. Now I have a toilet.”

—65-year old village *ibu* (mother) from Kuto Teungah

ownership of rural WSS facilities, and unclear responsibilities for maintenance.⁶

Community-Owned and Managed Water and Sanitation Facilities

The Government of Indonesia adopted a National Policy for the Development of Community-Managed Water Supply and Environmental Sanitation Facilities and Services in 2003 to respond to the need for demand-responsive approach to water supply and sanitation, foster community ownership, and develop their capacity for implementing and maintaining new facilities. The Government has established an Open Defecation Free program and aims to incorporate clean and hygienic behavior into its National Medium-Term Development Plan 2004–2009. This is in line with the Government's commitment to achieving the Millennium Development Goals in 2015, i.e., increasing access to drinking water and basic sanitation on a sustainable basis by as much as half of the population who are currently without such access.⁷ The Government has taken initiatives such as community-led total sanitation implemented in six districts in 2005, total sanitation campaign that was launched by the Minister of Health in 2006 in West Sumatra, and national hand-washing with soap campaign that was launched by the coordinating minister of People's Welfare together with the National Education minister and the state minister of Women Empowerment in 2007. In June 2008, the Government, under the Ministry of Health, established its National Strategy for Community-Led Total Sanitation, focusing on improving people's hygiene and sanitation behavior. The strategy is used as reference in planning and implementing, monitoring, and evaluating community-led total sanitation programs.

In line with the government policy, the Asian Development Bank through the Community Water Services and Health Project (CWSHP)⁸ intends to address four major issues that have led to less than satisfactory results in similar WSS projects in the past:

- build the capacity of local government to plan and manage sustainable investments;
- strengthen community capability to design, cofinance, build, operate and manage water and sanitation facilities;
- improve access to water and sanitation services through the construction of demand-based facilities; and
- conduct hygiene promotion at schools, religious facilities, and among the communities.

CWSHP aims to provide clean water and sanitation facilities to about 1,400 communities of rural Indonesia in

the provinces of, and Bengkulu, Jambi, Central and West Kalimantan, under the loan component amounting to \$64.7 million, and the tsunami-affected areas of Aceh and Nias–North Sumatra amounting to \$23.5 million under the emergency assistance grant component. Both loan and grant components of the project employ a community-driven development (CDD) approach where communities decide on the type of technology to be used, plan, and implement the activity with the assistance of community facilitators, take charge of operations and maintenance (O&M) on a permanent basis, and monitor and evaluate the sustainability and use of the new services. Communities are required to demonstrate their commitment by contributing at least 20% of the total capital cost (16% in kind, 4% in cash) of the investment in water supply and sanitation facility construction, and by covering all O&M costs.

The Project consists of four components:

- district and subdistrict capacity building,
- community empowerment,
- community-based water supply and sanitation facilities, and
- sanitation and hygiene behavioral change.

Community Action Plan: Blueprint for CWSHP CDD

Communities covered by CWSHP are selected using a definite set of criteria, foremost of which is the indication of interest by the communities to participate. For the grant part, communities stricken by the 2004 tsunami are eligible, and where no other funding agency or nongovernment organization provides similar services.

Two major participatory processes are core to CWSHP: the formulation of the Methodology for Participatory Assessment (MPA)-Participatory Hygiene and Sanitation Transformation (PHAST) and the community action plan (CAP). MPA-PHAST assesses community strengths and weaknesses on the use and sustainability of community-managed WSS. MPA provides the data to be used to plan and implement new services while PHAST assesses the opportunities for sanitation and hygiene behavioral change. Based on the results of MPA-PHAST, a community implementation team (CIT) selected from the members of the community is formed and provided with legal identity by the *bupati* (district head). As a legalized village institution, CIT is now able to open a bank account to receive project funds. As of June 2008, 209 CITs were formed in the areas covered by the grant component of CWSHP.⁹

Aided by community facilitators (consultants hired under CWSHP), CIT develops CAP, which serves as a detailed guide for communities to address identified water supply, sanitation, and health problems. It identifies the level of technology selected by the community from a menu of simple water and sanitation technology and the corresponding budget and community counterpart,¹⁰ establishes the O&M features of

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WSS, and defines a system for monitoring and evaluation. CAP is thus the blueprint for CWSHP CDD. Participating communities take pride in developing and implementing their respective CAPs. The ownership of CAPs exemplifies the proprietary attitude the communities have regarding the project.

As of June 2008, 150 CAPs have been approved for about \$3 million in the five districts of NAD (Aceh Utara, Bireuen, Pidie, Aceh Jaya, and Nagan Raya) and two districts on the island of Nias, North Sumatra (Nias and Nias Selatan) benefitting 151,000 individuals (51.7% are women). In the same period, \$1.86 million has been disbursed for WSS projects in various levels of implementation.¹¹ In each of the participating communities, project monitoring boards are set up indicating the project implementation status and fund disbursements.

“CDD Projects are Cheaper”

According to the community facilitators, mobilizing the communities—making them go through the process of identifying their needs and measures to resolve these needs—was never a problem. After all, water supply has always been a felt need in these communities. In fact, the communities have openly expressed an increasing demand for WSS facilities, and, in particular, the upgrading of existing facilities (such as connecting public hydrants to individual houses and improving basic latrines).

Communities also realize that by managing the WSS projects themselves, the cost for constructing the facilities are cheaper than when contracted out. CIT in Kuto Teungah spent 25 million rupees (Rp) (\$2,728) to construct the pipe bridge. The team said it would have cost them about Rp85 million (\$9,278) if the project were contracted out. Some communities noted that their projects were about 20% cheaper when done by the members themselves. A project consultant noted that “CDD projects are basically cheaper” since (for CWSHP) expenses were basically the cost of the materials and equipment.

Getting the communities to do project management and physical facilities construction require efficient provision of appropriate technical assistance. The problems being raised by the communities relative to their respective WSS facilities may be addressed by sufficient and fast provision of technical advice to CIT.

Desire for better and more efficient facilities encourages the communities to look up for other options. For instance, a number of communities have expressed willingness to raise more funds to establish house-level water connections.

Beefing Up Implementation of the CWSHP Grant Component

CWSHP enjoys strong ownership from the participating communities and support from local governments. In the meetings during the project’s review mission in July 2008, CDD-type of projects other than WSS were requested,

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ranging from enhanced livelihood, renewable energy, to the establishment of a high school building. Initial setbacks that slightly affected community enthusiasm for the project included delays in the release of project funds and inexperienced community facilitators (hired by CWSHP). Remedial actions were put into place to address these weaknesses.

To further strengthen CWSHP implementation, the following actions were agreed with by the project consultants, executing agency, and the Asian Development Bank at the end of the project review mission in July 2008:

- Improving the provision of technical assistance and/or advice to ensure projects are at par to the required standards
- Beefing up capacity building initiatives for local government units to ensure sustained provision of community-led total sanitation support even after the project period
- Providing for and implementing O&M. Community enthusiasm to begin construction of WSS facilities have left out provisions for setting up O&M mechanisms such as user fees and repairs and maintenance procedures. Establishing O&M will complete the CDD project cycle process (community planning, project implementation, fund management, participatory monitoring, and evaluation).

Community Empowerment: Broadening of Choices

The children of Cot Lhe Lhe village¹² in the district of Nagan Raya proudly led the way to their toilets. All said they helped in the construction. A mother, a baby in her arms, blurted a shy *Terima kasih* (thank you)! A project consultant said “This is community empowerment! This is how CDD works.”

CWSHP has indeed filled a need. More importantly, it has mobilized the communities to fill the need themselves and the communities owning up the process—and the use of CDD is an empowering process. CDD is not just providing the process to identify actual needs, plan solutions, manage the project and funds, and conduct participatory monitoring. The challenge for CWSHP is providing the communities with a broader range of choices and being able to act on those choices. It should also provide venue for critical thinking and enabling communities to “think out of the box” and expand their options to address their needs. Hopefully, CWSHP, using CDD, would be able to do just that—helping the communities expand their options.

Endnotes

- ¹ Kuto Teungoh Village (pop. 4600) in Nagan Raya district, province of Nanggroe Aceh Darussalam (NAD).
- ² World Health Organization/UNICEF.2004. *Joint Monitoring Program*. Available: http://en.wikipedia.org/wiki/Water_supply_and_sanitation_in_Indonesia.
- ³ ADB website (based on article written by Richel Langit-Dursin). 2006. *Country Water Action: Indonesia Simple Solution for Drinking Water Makes Big Difference*. Available: www.adb.org/water/actions/ino/simple-solution.asp.
- ⁴ World Bank. 2006. *Project Proposal Appraisal Document on a Proposed Credit to the Republic of Indonesia for a Third Water Supply and Sanitation for Low Income Communities Project*. Available: www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2006/06/08/000090341_20060608110102/Rendered/INDEX/35503.txt.
- ⁵ ADB. 2005. *Report and Recommendation of the President to the Board of Director on Proposed Loans and Emergency Assistance Grant to the Republic of Indonesia for the Community Water Services and Health Project*. Manila.
- ⁶ Wikipedia. *Water supply and sanitation in Indonesia*. Available: http://en.wikipedia.org/wiki/Water_supply_and_sanitation_in_Indonesia.
- ⁷ Ministry of Health of the Republic of Indonesia. 2008. National Strategy for Community-led Total Sanitation (CLTS).
- ⁸ Community Water Services and Health Project was approved in April 2005 comprising loans amounting to \$64.7 million (ordinary capital resources and Special Funds) and \$16.5 million in an emergency assistance grant. Expected completion date: 30 June 2011. Executing Agency: Directorate General of Communicable Disease Control and Environmental Health of the Ministry of Health.
- ⁹ Project progress under the loans component is delayed due to delays in loan effectiveness and in mobilizing consulting firms at the regional levels. As of June 2008, 100 villages have prepared draft CAPs for about \$1.96 million. The case study focuses on the status of projects under the grant component.
- ¹⁰ For communities under the grant component, community cash counterpart has been waived. Communities contribute in-kind and in the form of labor.
- ¹¹ PT Aquatic Consultant (with PT Multi Tehniktama Prakarsa). 2008. *CWSHP Aceh–Nias/North Sumatra Quarterly Progress Report: April–June 2008*.
- ¹² Cota Lhe-Leh village (pop 262, 71 households) in Nagan Raya district, province of Nanggroe Aceh Darussalam (NAD).

Disclaimer

This case study was written by Mario Randolph Dacanay (RETA Consultant) under the Regional TA 6400: Supporting Community-Driven Development (CDD) in Developing Member Countries with inputs from Wolfgang Kubitzki, Project Officer of Loan 2163; Clifford Burkley, Social Development Specialist; and Sonomi Tanaka, Principal Social Development Specialist (Gender and Development); ADB. The views and assessments contained herein do not necessarily reflect the views of ADB or its Board of Directors or the governments they represent. ADB does not guarantee the accuracy of the data and accepts no responsibility for any consequence of their use.

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