

INDONESIA:

**URBAN WATER AND SANITATION IMPROVEMENT AND
EXPANSION PROJECT (UWSIEP)**

REPORT ON SANITATION WORKSHOP

**Prepared for the World Bank
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MAKASSAR, 28-29 APRIL 2005

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English version of report

The Makassar sanitation workshop was conducted in Bahasa Indonesia, with the exception of one or two presentations (see Annexes for details). The English version of the main report is a translation of notes taken during the workshop and which has been kept as close as possible to the sense and meaning of what was said and discussed in Bahasa Indonesia.

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EXECUTIVE SUMMARY

In Indonesia urban sanitation infrastructure is less developed than water supply and other forms of infrastructure. The existing sewerage services in urban areas only serve about 2% of the population. The Sanitation Workshop held in Makassar (April 28-29, 2005) was aimed at promoting dialogue and understanding among Indonesian stakeholders on the importance of sanitation, and exchanging and disseminating good practices from experiences in Indonesia, neighboring countries and globally, that can lead to city-wide solutions for sanitation. The Workshop was also carried out in conjunction with the preparation for the implementation phase of the sanitation component of the proposed UWSIEP project.

The Workshop was attended by 61 participants from water utilities, universities, government ministries, local officers, local people's representatives, and NGOs as well as international agencies. The Bank Netherlands Water Partnership (BNWP) Trust Funds financed the Workshop through the Water Anchor Sanitation Team of the World Bank. *Forum Komunikasi Air Limbah* (FORKALIM), the newly established forum under PERPAMSI for communication on sanitation in Indonesia, jointly organized the Workshop with the World Bank. ESP-USAID provided travel expenses for participants coming from other cities. The Water and Sanitation Programme (WSP) provided practical assistance with planning and facilitation of working groups.

The guest speakers were invited from the World Bank and neighboring countries (Malaysia). Local experiences and best practices were presented by water utilities managing sewerage systems, and by NGOs operating community-based sanitation schemes. Complete presentation materials and the results of plenary discussions are found in Annexes 1 and 2. Participatory discussion methods were used on the second day, ensuring that all participants were actively involved in sharing their views and could participate actively in the discussion. The discussion included sanitation options from community-led approaches to city-wide schemes; the likely role of water utilities in sanitation in future; and cost recovery issues. This was narrowed down to agreeing on an unbundled approach as an appropriate approach to solving urban sanitation challenges. The results of the group work discussions are presented in Annex 3. Annex 4 provides a summary of the findings of the visits to the three cities participating in UWSIEP preparation. The workshop agenda and list of participants' list are found in Annexes 5 and 6 respectively.

Post-workshop evaluation indicated that about 94% of the participants considered that the Workshop to be very useful or useful to their work, and more than 80% said that it fulfilled their expectations. The results are summarized in Annex 7.

INTRODUCTION AND BACKGROUND

This Report was prepared upon completion of the Sanitation Workshop, held in Makassar, Indonesia, April 28-29, 2005. The Workshop was made possible with the support of many parties including PDAM Makassar and ESP-USAID. The World Bank financed the Workshop through BNWP (Bank Netherlands Water Partnership) Trust Funds, which are managed by the Water Anchor Sanitation Team (Energy and Water Department) of the World Bank. *Forum Komunikasi Air Limbah* (FORKALIM), the newly established forum under PERPAMSI for communication on sanitation in Indonesia, jointly organized the Workshop. The Water and Sanitation Programme (WSP) provided practical assistance with planning and facilitation of working groups.

This Workshop was carried out in conjunction with the preparation for implementation of the proposed Urban Water and Sanitation Improvement and Expansion Project (UWSIEP), where a sanitation component will be implemented in the UWSIEP participating cities.

Urban sanitation has been chosen for support as this sector is less developed than other urban infrastructure. The current urban population is 95.5 million (about 44 percent of the total population). The growth rate in urban areas is more than twice Indonesia's growth rate of 1.52 percent per annum. The GDP (purchasing power parity for 2002) was US\$714 billion and the per capita GDP for 2002 was \$3,100. In 2001, life expectancy in Indonesia was 66.3 years, infant mortality rate was 33 per 1000 live births (compared with 41.6 in 1997 and 35 in 2000), and child mortality rate (for children under 5 years) was 45 per 1000 children compared with 48 in 2000. The illiteracy rate is about 12 percent.

According to the Report prepared by the WHO/UNICEF Joint Monitoring Program (JMP), access of the urban population in Indonesia to basic sanitation was 71% in 2002 compared to 66% in 1990. Government of Indonesia data indicates that 68% of the urban population had access to private basic sanitation facilities in 2000; 14 % used shared facilities, eight percent used public facilities; and 10% used other non-specified facilities.



Courtesy: Alex Chalik

Septic tanks are, by far, the most common form of sanitation in urban areas (59%). In Jakarta alone, there are about one million septic tanks. Other means for final disposal of household human wastes include pits (21%), rivers and lakes (13%), and ponds, with rice fields and others taking up the rest. In Jakarta, 30% percent of the poor discharge their wastes directly into bodies of water.

Virtually all the reported access to sanitation in urban areas is through privately provided services. Access to publicly provided sewerage or other forms of sanitation services is very low. There are only seven significant public sewerage systems serving urban populations in the country. Three of these were built during the past 20 years; the rest were built in the colonial era. There have also been some extensions made to some of the old systems in the recent past. The available public

sewerage systems are mostly small in relation to the population size of the cities in which they are located. Together, they serve about 1.3% of the total urban population in the cities concerned.

The lack of a formal institutional structure for sanitation in Indonesia is a key factor constraining the sub sector. At the national level, basic sanitation still falls under an institutional “gray area” with no ministry or department clearly defined as the lead agency, although to some extent, Ministry of Health leads the promotion of health and hygiene education. At the local level, there is little incentive for local governments to tackle the structural problems created by decades of under-investment. The need for substantial levels of investment together with the lack of demand and political will for change mean that most local governments are either still ignoring the responsibilities delegated through the decentralization process, or they are looking to find alternatives to the traditional means of infrastructure provision to deal with the growing urban sanitation problem.

There is strong interest by the Government of Indonesia (GOI) in addressing the urban sanitation challenge through a pragmatic staged process of developing consensus, policy, and capacity. This approach will build on small scale local successes with local governments that have demonstrated a commitment to addressing sanitation problems directly, or through the corresponding local utility (PDAMs). The World Bank is supporting the GOI in this effort. As part of the World Bank commitment, the Bank is currently preparing a new loan to the GOI for an Urban Water and Sanitation Improvement and Expansion Project (UWSIEP). The sanitation component of the project will be aimed at testing the scaling up of successfully proven community systems in urban areas, in particular concentrating on generating community demand for sanitation services, developing vital institutional and partnership links between the communities and local governments and preparing scaling up strategies for transforming Community Based Sanitation (CBS) schemes to city-wide schemes.

The program will build on the workable and promising SANIMAS scheme and is intended to supplement national level institutional and policy activities in the sector with activity at the local level. Specifically, activities will tie in with national-level policy dialogue carried out by the ongoing WASPOLA project which provides the focus of policy-making in relation to community based approaches in the sector.



Courtesy Alex Chalik

The main objectives of the sanitation component under UWSIEP will be to generate community and local government demand for sanitation services, and to replicate workable and promising community-based schemes previously pioneered under SANIMAS. Before fully embracing the community-driven approach to address urgent needs in urban sanitation, it is important to establish whether it is a sustainable approach and also widely accepted by communities. As the CBS schemes to date have had only limited trials, its success as an effective means of providing sanitation in the most needy areas is best confirmed through replication and scaling up. In addition, successful CBS projects will help build confidence and a receptive attitude towards a citywide sanitation program. The expected outcome would be that the two key stakeholder groups: the

community and the service-providing agency of the local government, would be willing to embark on solving the sanitation problems, and that the approach, combined with developing city-wide strategic sanitation plans can serve as a model to be applied in other cities of Indonesia.

In addition, it is expected that the Dutch Trust Fund financed and WSP managed Urban Sanitation Strategy project will provide additional support to tackle advocacy, policy-making and capacity building at the national level and focus on developing strategies and models for those cities with sewerage networks.

PURPOSE OF THE WORKSHOP

The purpose of the Workshops is to:

- promote dialogue and understanding among Indonesian stakeholders on the importance of sanitation (domestic liquid waste) to reduce pollution to surface and groundwater, and exchange and spread good practices emerging from the experiences in Indonesia and neighboring countries, that can lead to city-wide solutions for sanitation, and
- prepare the stakeholders in the implementation phase of the sanitation component of the proposed UWSIEP project.

KEY MESSAGES FROM THE OPENING SPEECHES

Zainal Arifin, FORKALIM Representative

We welcome the participants, and thanks to the Mayor of Makassar and PDAM Makassar, for being the host of the event. FORKALIM is a forum newly established to continue promoting a dialogue among the stakeholders in urban sanitation. We hope that the workshop will bring new approaches to tackle the problem of sanitation in urban areas. FORKALIM will certainly take lead in any follow up of this Workshop.

Jan Drozd, Task Team Leader, UWSIEP, The World Bank

We all acknowledge the challenge that we face in bringing improved sanitation to urban areas, but to date there are very few replicable models to scale up. There is a need to create awareness about the importance of the sanitation, and generate demand for sanitation services. Limited public financing means that capital efficient solutions are needed which consumers want and are willing to pay for.

It is necessary to test appropriate sanitation models in parallel with tried and tested piped sewer networks for services in densely populated urban areas. Such a parallel track approach could be adopted in future urban sanitation projects.

In order to support the sanitation sector, the recently approved \$22 million Dutch grant for the Indonesia Water and Sanitation Program (WASAP-Indonesia) and administrated by the World Bank, is now available for sanitation related activities. A portion of the sanitation sub-program will be managed by the WSP-EAP to develop effective strategies and approaches for sustainable

sanitation solutions with municipalities and communities in parallel with the preparation of infrastructure investments. Another portion of this sanitation sub-program, will be executed by the Government to support priority sanitation pilots identified in city strategies and action plans

Basah Hernowo, Director for Settlement and Housing, BAPPENAS

Sanitation infrastructure in Indonesia is less developed than water supply and other urban infrastructure, such as water, road, telecommunication etc. Statistics indicate that sewerage systems only exist in a few cities, serving only 2% of the urban population. These schemes were mainly built during the Dutch time and during the 1980s – this the is the situation we find ourselves in after 60 years of independence.

The losses due to a lack of sanitation are unimaginable - even as much as 2.4% of GDP, which is around Rp65 trillion. The cases of sickness and ill health increase every year, and no one ever looks for the cause. The research has shown that the laborers use one-third of their income for medical treatment. If we use standard minimum monthly wage (UMR) of Rp700,000, one-third of that amount is for medicine to cure water-borne diseases caused by poor sanitation.

The Water Resources Law No 7/2004 and the newly issued GR No 16/2005 stated the importance of increasing awareness on sanitation. This policy statement provides platform to proceed with improving sanitation conditions. More important is the agreement at all levels, central, provincial and local, to take action. In responding this, the Dutch Trust Fund (ISSDP) is now available to establish policy on sanitation, which includes provision for pilot project sewerage systems.

The experience we have with sewerage systems in Denpasar, Surakarta, Yogyakarta, Bandung and other cities has provided valuable lessons to be learned. We should move on from on-site sanitation to off-site sanitation, but we cannot jump, it should move in stages. We should start with the schemes that can attain cost recovery. Without serving the commercial areas, we don't have an adequate backbone for the system.

Another critical issue is demand, but we are confident that demand can be generated if we work together, including with NGOs. Experience in India shows that the hygiene promotion is successful after the people are informed that flies are the most effective way to spread disease, and then real action follows to improve sanitation. Campaigns are nothing without action. Sanimas is an example of togetherness between central and local governments, community and NGOs. The central government is fully supporting this initiative.

Bambang Goeritno, Director of Technical Development, MPW

Welcome to the Workshop and consider the impact on this event sponsored by Forkalim and WB. We will enter the new era in sanitation development together with the WB, indicated by the negotiation and signing of the project for three cities, to be carried out soon, and sanitation is one of the components of the projects.

A recent study shows that financial loss due to inadequate sanitation is Rp4.7 billion/year, or \$12 per household per month. In most developing countries, sanitation is still problematic, due to lack of awareness. A WHO publication in 2000 shows the impact of lack of water and sanitation on the poor - globally there were four billion cases of diarrhea, affecting 2.2 million people, mostly children. This is equivalent to 17 people dying every second.

The present situation is that only a limited number of people have access to proper sanitation; most of the IPAL/IPLT's are not effective; and that contamination occurs in the main rivers in Java, Sumatera, Bali and Sulawesi. About 75% of 52 rivers are polluted by organic pollutants. Quality of well water has also deteriorated. To challenge this situation, Indonesia has prepared sets of reforms, among others by issuing the National Action Plan on Sanitation, and the GR No 16/2005. These have to be translated in the local actions and need to be synchronized. To reach MDG target, at least Rp17 trillion is needed for sanitation. For water and solid waste, the amount needed is Rp51 and 30 trillion respectively.

Ilham Arief Sirajuddin, Mayor of Makassar

A warm welcome to all participants, and we are pleased to be the host of the Workshop. Sanitation is on the strategic agenda for Makassar. In Makassar, slum areas are creating problems due to urban migration. Where the city could not provide space for migrants, they occupied any open space in the city and this has resulted in slum areas.

It is expected that the workshop will provide framework for further policy and action on sanitation, including new approaches for sanitation in Indonesia. From a recent visit to Chongjing in China, we found that this relatively new city has been able to improve its environmental condition, by treating liquid waste, and converting garbage to energy. It was proven what the prophet said that you should obtain the knowledge even if you need to go as far as China.

We are aware that Makassar cannot not solve the problem alone. Participation from central and provincial governments and the Bank is required. We have just started with reclamation of Losari beach, where we plan to build a treatment plant to intercept waste from 14 outlets along the beach. In 1970s Losari is known as the longest toilet in the world, then during 1980s it was known as the longest restaurant - which has now already relocated).

Thanks to all the participants.

KEY POINTS FROM PRESENTATION AND DISCUSSIONS

Session 1: Global Examples and Lessons Learned in City-wide Urban Sanitation including the Urban Poor

Indonesia can learn from the examples and lessons learned in many project in other countries that were designed to improve hygiene and sanitation--especially to low income communities. Isabel Blackett summarized the four points that she felt are most relevant to Indonesia's current state of progress in planning and implementing sanitation programs. The first point is to understand the difference between private benefits of sanitation (such as household convenience, cleanliness, privacy, better health) and public benefits (a cleaner and healthier environment, lower water treatment costs etc). The public benefits are why government should provide leadership, policy and funding for improving sanitation. The second point is the usefulness of unbundling, or the modular approach to sanitation. Instead of providing a large centralized sanitation system, unbundling may start with a range of different technical options including CBS, condominal sewers and small treatment facilities based on a strategic plan that includes services to poor communities. The third point is that promotion of sanitation and hygiene increases the community's demand,

willingness to pay and can improve health. Thus, there is a clear synergy between programs which raise awareness of sanitation and hygiene such as hand washing promotion and increasing peoples willingness to pay for sanitation. The last point is that it is essential that city-level strategic plans be developed by the leadership of senior officers and with the participation of the community.

Eduardo Perez presented the experience and lessons learned in two sanitation projects: one in Brazil and one in El Alto, Bolivia. The PROSANEAR I Project (1992-97) piloted low cost water supply and sanitation technologies and community participation in 60 low income settlements in 17 cities throughout Brazil. Evaluation at the end of the project found that the poorest slum areas mostly were not reached, largely because the communities were very complex, poor community involvement and lack of community understanding. Because the post-project roles of stakeholders were not specified, user groups disbanded after the project, and there was arrangements in place for support form NGOs.

It was found during and after the project that utilities did not have the skills to work in slums, so they avoided them. They also lack the capability to carry out decentralized operations and maintenance. In future projects there should be a stronger focus on community participation and informed choice at the beginning of the project. Households should be trained to use the facilities, and a partnership should be forged between the utilities and NGOs. From the beginning, plans should be made for utilities to conduct operations and maintenance of the facilities and to work in the poor slum areas. At the national level, there must be strong project management and technical assistance.

Squatter lands were "regularized" by the Brazilian government in order to allow the project to be conducted, but they were not fully legalized. Credit was provided for the construction of toilets. Small diameter flexible pipes were assumed to provide greater benefit/cost, but a team is required to wash out the pipes regularly. Land acquisition continues to be a problem.

In the PROSANEAR II project, condominium sewer systems were also established in more wealthy areas. Condominial and simplified sewerage systems have now become an accepted field in sanitary engineering, and such projects are still being constructed in Brazil.

In the El Alto slum in a suburb of La Paz, Bolivia, a 30-year concession contract was signed to provide low cost services with simplified sewers and the condominium sanitation systems. It was found that the simplified sewer system saved 24% of capital costs and the simplified water infrastructure saved 40% over conventional infrastructure. As a result of community participation, 26% of conventional project costs were also saved. However it cost a substantial amount to mobilize the community, but the overall savings were still considerable, and the hygiene results were dramatic.

In the El Alto project, the user fee was a problem to the concessionaire who intended to recover the recurring costs of operations and maintenance. But the concessionaires were not transparent with the public about their costs, so the public became outraged and demanded that the concessionaire withdraw. The central government was not strong enough to stand up to the community, so the concessionaire withdrew.

Questions during the discussion indicated that most cities in Indonesia are in the early stages of planning for sanitation programs and infrastructure. Many of the main problems such as demand stimulation and land acquisition have already been identified. Isabel ended the session with eight summary points for those who are designing projects: involve all stakeholders; focus on unserved households; new approaches are needed if things are to change; continue to implement while also

planning; create demand at all levels; build capacity at all levels; focus on sustaining benefits such as full cost recovery and ownership; before starting a pilot, think of how it will be replicated at a large scale.

Session 2: Approaches to City-wide Sanitation Cost Recovery

Self-sustained sanitation management in Banjarmasin, South Kalimantan was constructed under the Bank-financed Kalimantan Urban Development Project (KUDP, completed in 2003). This pilot project was considered a success as it involves stakeholders (community, bureaucrats and the local parliament). The sewerage system covers mainly commercial areas. The technology used is low in O&M, and the billing efficiency is 87% (it is attached to water bill). The monthly charge ranges from Rp5000 (single household) to Rp100,000 (commercial), which is about 25% of the water bill. A revenue of about Rp35 million/month is collected. The treatment capacity is 500 m³/day, with 528 connections.

A working group has recently been created to 'socialize' the scheme, jointly with a local NGO, to get more connections. A similar scheme has now been replicated in other areas (Pekapuran Raya) with the treatment capacity of 4000m³/day, to be developed until 2009.

In Surakarta, Central Java, two large schemes were developed, constructed under Bank-financed Semarang Surakarta Urban Development Project (SSUDP, completed in 2002). The first scheme was developed from the Dutch system back in 1940s. The second scheme was developed in 1980s under central government funding, serving the Perumnas (low-cost housing) area. Both schemes are now operating with treatment facilities.

In Banjarmasin, there were areas that had been served, but were not billed, as sewerage billing is included in water bill and the area had not yet been provided with piped water. These areas are now served with piped water, and the wastewater bill will soon be applied. The scheme has been able to recover its O&M costs two years after completion. Until this was achieved central government funds were provided to subsidize the operation and maintenance costs. Marketing of new sewer connections is critical, as the scheme in Surakarta cannot recover its O&M costs unless the number of connections is twice the current number. In Banjarmasin, the budget for marketing or 'socialization' is around 10% of O&M budget.

In Banjarmasin, the PDAM is able to manage wastewater within the existing organizational structure. It is expected that in 2009, sewerage will be managed separately. In Medan, the PDAM is rather reluctant to handle sewerage, as the utility is owned by provincial government, whereas the sewerage system covers two towns. PD PAL (sewerage company in Jakarta), is already a separate company.

Session 3: CBS and Mapping as Steps to Efficient Piped Sanitation

Increased urbanization has reduced quality of livelihoods significantly for million people who live in informal or low-income settlements in cities. Lack of basic sanitation infrastructure endangers public health especially of vulnerable women and children in poor urban settlements. On the other hand public sanitation utilities providers find it increasingly difficult to supply services to the urban poor. Community based sanitation (CBS) offers various sanitation options to fill the gap between

on site sanitation and full municipal sewerage. It aims to improve hygiene behavior and sanitation infrastructure especially for the poor and densely populated areas.

BORDA (Bremen Overseas Research and Development Association) shared their experiences in implementing community based sanitation in several cities. CBS has been known as the approaches that places the community in the role of decision-maker in the selection, financing, and management of the sanitation system. Demand responsive approaches are the basis for sustainable implementation. Demand is not only required at community level but to some extent, of the local government to. The overall approach used to select the municipalities and communities, where BORDA has implemented, reflects this fact. However, demand has to be proven by both municipalities and communities through a clear commitment and contribution such as allocation of local budgets and agreeing a responsible agency at municipal level, and a willingness to pay and to participate at community level. Socialization and promotion are important to make known CBS to a range of stakeholders including the target users. Attempts to communicate results and learning have to be increased.

CBS is also able to overcome financing challenges in the sanitation sector, since primary infrastructure investment has been provided by multi-source funding including communities, municipalities and NGOs. Operation and maintenance costs are fully covered by the users. However, the multi-source funding scheme did not dilute community ownership of sanitation facilities.

BORDA has shown that CBS can be an alternative solution for delivering services to the under-served and un-served households mostly the peri-urban areas at the fringe of larger cities, and the poor within the city.

However, CBS can not significantly increase sanitation coverage in the urban area since the service being provided is only limited to small neighborhoods. Municipal sewerage is believed to be the answer for increasing level of service particularly in urban settlements. In this respect, presentation from Indah Water Konsortium revealed their experiences in managing municipal sewerage in Malaysia.

In Malaysia, sewage is identified as a major source of river pollution, almost 50% of river pollutants are coming from sewerage and about 39% from manufacturing industries, and 11% from other sources. That facts showed that sewerage management is very important to safeguard people's health, protect water resources, and protect the environment. Therefore, serious efforts have been taken to improve the sanitation sector e.g. by federalizing sewerage services in stages from early 1994, signing a concession agreement with IWK, and passing a national sewerage development plan.

Currently, the population served by IWK is equivalent to 15 million through a wide range of services from individual septic tanks to full sewerage plus sewage treatment plants. The services provided by IWK are not limited to managing city wide sanitation but also extending to the other essential services such as integrated national sewerage planning, control and certification of sewerage development, formulate policies, procedures, standards and guidelines, etc.

After federalization and privatization, attempts to reform the sector management have been rolling. Elements of policy and regulation are in place e.g. for new developments (> 30 units) piped sewerage where a sewage treatment plant is required, all black & grey water must be treated before discharge, etc. Other programs and plans such as gradual improvement of standards to reach 100% compliance to effluent standards in 2020, an operation and maintenance improvement

plan, customer services and communication plan, customer handling system, accreditation and training have been rolled out as well.

Although this has brought dramatic improvement to sewerage management, privatization in Malaysia is still facing constraints such as high cost due to under-estimation of costs, low tariffs, low collection, and lacking funding capacity. Consequently, federal governments are required to provide significant subsidies, especially for capital investment. Over RM 2 billion (US\$1=RM3.8) has been committed from 1994 to date. The way forward will require the following key factors for achieving the targets, effective and comprehensive policy, institutional, and regulation framework, a staged approach by priority, awareness, education, and communication, resources, and creating demand, toward sustainability and full cost recovery.

The challenge of city wide sanitation management is to integrate CBS with other forms of sanitation services such as municipal sewerage and to create public and politic support for investment in sanitation.

Session 4: Enabling Utilities to Provide Water and Sanitation Services to the Poor

There are several different definitions of poverty. According to one definition, the poor are those who do not have adequate urban services such as water supply and sanitation. House connections have many benefits that cannot always be transformed into monetary values. House connections always provide the lowest cost per unit of consumption, and they provide more benefits than public hydrants. The PDAM is the logical institution to provide house connections. Recent surveys have found that if they receive house connections, very poor families can increase their consumption of water from 2 to 10 cubic meters per month and still increase their disposable incomes by at least 11.5% through the unit cost savings.

The PDAM is not mandated to provide service to the poor. Except in newly enacted PP16/2005, no previous regulations mentioned serving the poor. Reforming PDAMs will enable them to become more professional and financially viable, and thus better able to serve the poor. Reform is needed in tariff setting and relations with the owner, the local government. Local governments need advice on the technical aspects of the water business, so it would be helpful to establish under a relevant Ministry a Board on Water Business (*Badan Bisnis Air Minum*) consisting of proven professionals such as former PDAM directors who guided their utility from losses to profits.

To be able to serve the poor, a stimulus is needed to help pay connection charges, perhaps through partial subsidies, and PDAMs need to provide more reliable services. The recent technical assistance provided under LGWS (Local Governance Water Services) in 24 PDAMs indicated that, without the addition of funds, management could be improved to increase revenue and reduce operating costs.

To strengthen ties with the community, about 30 PDAMs have encouraged the formation of caring-about-water forums (*forum peduli air*), based on women's groups. These groups should be strengthened by the PDAM to provide socialization to consumers and input to the PDAM. The city government should also be able to provide partial subsidies for connection charge for poor consumers. If the poor are well served, sanitation services could also follow, and water-borne diseases could be reduced. The question is how to channel the subsidy to avoid misuse of funds.

The investigation carried out by Waspola indicated that the problem is indeed a dilemma. The recruitment system in most PDAMs makes them unprofessional. While the PDAM is financially

unhealthy, it has still to provide a dividend to its owner. It is wrong to think that the poor should be subsidized. The communities, including the poor, have great potential to help themselves, especially with facilitation provided by NGOs.

There needs to be more socialization to the main stakeholders. The provision of water to the poor through public hydrants and water terminals was ineffective in Jambi. The program to serve the poor, financed by central government budget from the savings in increased gasoline price, was also not very effective. In Banjarmasin, the TA provided by LGWS has given positive results, and now the problem still faced by PDAM Banjarmasin is the availability of raw water.

In Kendari, some consumers steal water or refuse to pay for water because they feel it is a government service. Representatives of DPRD Kota Kendari added that if a PDAM is not performing, private operators should be invited to take over the management of water supply because they would dare to collect water bills. PDAM Kendari staff have a training program with PDAM Banjarmasin for staff improvement.

SUMMARIZED PLENARY PRESENTATIONS FROM GROUPWORK



Courtesy Russell Abrams

Group 1: Knowing more about CBS and integrate it with city-wide sanitation

Issues for discussion: how can stakeholders help the project cities learn about CBS; how should CBS integrate with other city-wide sanitation activities

When the discussion started, most participants did not know what Community Based Sanitation (CBS) meant. An introduction by the resource person, Mr. Surur Wahyudi from BORDA was useful for the participants to have a better picture of the CBS initiative. Three key questions were discussed by the participants in order to meet the broad issue of **how can stakeholders help the project cities learn about CBS?** The three key questions prepared were: (i) CBS, what are its

characteristics; (ii) CBS stakeholders, who are they? And what are their roles?; and (iii) how to promote CBS?

Question 1. CBS, what are its characteristics

To the participants, in commencing community-based sanitation, initiatives could be triggered either from the community itself or with intervention from outside. In the case of outside intervention the initiator should come with sanitation options and provide the community with comprehensive information about advantages and disadvantages of all options in order for the community to decide which option is best for their local situation.

Communities who do not show any demand for CBS services should not be part of CBS initiatives. Community demand should be proven by their efforts to reach what they really want. This is the key for sustainability of the system in the future which they believe could provide them with a better environment. Once demand is ensured, starting from preparation to implementation, operation and maintenance, the community is responsible to make decisions at all development stages. This will create a strong sense of ownership by the community towards the system.

Willingness of the community to contribute in cash and in time, and to make necessary decisions should be part of the CBS development process. However, the institutions formed by the community to construct and maintain the system should be legal (which should be proven by a formal *SK/ Surat Keputusan* signed by the appointed authority) and should be accountable. This is important since the community organization will have to manage funding from different resources, government, donor, including the users.

A community-based sanitation initiative should, as far as possible, strengthen local resources and its potential. This includes the knowledge of improved health indicators, for example: how to identify the decrease of diarrhea cases within the community once the services have been improved, the ability of the community to choose and decide the most appropriate system for them and the ability to operate and maintain the system

Question 2. CBS stakeholders, who are they, and what are their roles

The participants identified several potential parties as CBS stakeholders. Stakeholders were understood as people or entities which have an interest in CBS development and could work hand-in-hand to reach its objective. It could be communities as an individual or organizations or entities such as user/s, community self-help organization/s, PKK, and others. The government, another important stakeholder with support from all related sectors such as Dinas PU, Bappeda/ko, Cleansing Division, Health, City Planning Division, DPRD and the mayor/bupati. Not to be forgotten are the universities, the private sector, like: desludging firms and developers, donors and NGOs.

The role of the community, either as individual or entity, should include responsibility for proving its CBS demand and provide necessary funding and time in accordance with their ability to share. This is important since they should take the initiative in all development stages until operation & maintenance.

In many cases the community could not provide all the required CBS development capital. For this the government should take a significant role. Besides funding, the government should provide the sanitation strategy/plans for communities to follow and coordinate all related sectors in the development and act as respected facilitator. What is also important is: control and clear regulation for community based sanitation development should be in place and enforced.

The private sector role is to provide CBS initiatives and put it in their plans. NGOs could be strong partners who could provide technical assistance and funding. Like NGO's, donor's could provide funding but it also could help government prepare policies and regulation which could support the development of CBS.

Question 3 How to promote CBS

There are two important objectives for the promotion of CBS (i) to build the same perception and understanding of CBS by government executives and legislative, they should have a clear definition of CBS (ii) adopt, formalize and legalize CBS as a potential option.

Some effective promotion methods includes (i) cities workshops on CBS should be intensively conducted, all stakeholders should participate to make necessary plans; (ii) cross visits to successful sites by stakeholders; (iii) disseminate available CBS publications to all stakeholders; and (iv) CBS campaigns at all levels, from government sectors to grass root levels.

Group 2: Preparation for piped system and feasibility assessment

Issues for discussion: what can be done now to prepare for piped sanitation and treatment services; what details should we determine to assess the size and feasibility of piped sanitation and treatment services

Question 1: Plus and minus of CBS scheme versus city sewerage scheme

The group was able to pinpoint advantages and disadvantages of both CBS and sewerage schemes. One of the important outcomes from the discussion was that the sustainability for CBS scheme is high, but at the same time, difficult to predict, whereas for sewerage scheme, sustainability is somehow predictable. The other outcome was that in CBS, it takes longer to prepare, and it is usually difficult to find an institution responsible for the operation. In sewerage scheme, pros and cons could trigger social problems.

Question 2: What does it mean with stepping-up to city-wide sanitation? Will sanitation development be directed towards sewerage only or CBS only? Or a mixture of both? Unbundling

All participants agreed that urban sanitation needs combination of both CBS and off-site sanitation schemes, according to local conditions and available budgets.

Question 3: What to be done to proceed with city-wide sanitation development

The group identified a list of actions to proceed with city-wide sanitation. Among the important actions, sanitation promotion to all stakeholders is considered a priority, followed by sufficient regulatory framework in the local region and community preparedness.

Group 3: PDAM's position and role in managing piped sanitation

Issues for discussion: what are advantages to the city of PDAM planning and managing piped sanitation and treatment services; what is the best role of the PDAM in planning for O&M cost recovering piped sanitation

Most of the participants in the group agreed that ideally the PDAM should not only be responsible for water but also wastewater. The rationale for that is the Water Resources Law No. 7/2004 and the new Government Regulation No. 15/2005 on Water and Sanitation, which mentioned that water supply and sanitation should be integrated in management. In addition, PDAM is also considered as a service provider institution that exists in most cities or districts. Although large number of

participants agreed, a few were reluctant to accept this. According to them, most of the PDAMs currently could not fulfill their responsibility in providing good services for water, and giving them extra responsibility will lead to even poorer performance. Tariff setting is one aspect that surely will need attention for this approach, whether it will be based on water consumption, building space, or charged in combined billing with water. All those questions need to be settled with various stakeholders so it will come up with a standard formulation of tariff.

Question 1: In what type of city or district (scale or characteristics) PDAM is appropriate as responsible agency in sanitation?

According to the participants who agreed with the concept, appropriateness is not determined by type of city but by the performance of the PDAM. As an institution, PDAM is appropriate to manage sanitation. What makes it inappropriate is often due to an external factor such as over-intervention from Pemda (LG). For those who seem hesitate to buy the concept, they didn't explicitly express the disagreement but they always underlined that it depends on the mandate from regulation at the local level.

Question 2: What are the advantages and disadvantages of PDAM as a responsible agency for city-wide sanitation?

Even though there was no debate in the discussion, the participants were still divided in two:

Those who agree: The main advantage as stated above is that PDAM is directly related with wastewater generated, since wastewater can not be separated from water consumption. Thus making PDAM as responsible institution for city-wide sanitation will enhance their role on water resources protection which will eventually benefit PDAM as well. In addition, this approach is expected to increase efficiency in terms of cost, human resources, information resources, management, and even tariffs and charges, since several aspects on water and wastewater are similar, e.g. system and related information. Reshuffling in government organization is always recognized as one of the problems in sustaining human resources, the other advantage of appointing PDAM as the responsible unit is because that the utility is more stable in terms of its employees compared to other government institutions.

Those who disagree: There is no specific regulation at district/city level that appoints PDAM as responsible agency for water and wastewater. There are problems associated with the tariff setting which need to be clarified and closely related to the service being delivered. The message that is conveyed by those who object to the PDAM being responsible for wastewater, is that most PDAMs at present can not fulfill their responsibility in providing good services for water, and giving them extra responsibility will lead to even poorer performance. PDAM's capability and readiness is a big question that still needs to be resolved. The other issue is how to address the sanitation needs of households who don't have PDAM water connections, but they produce wastewater which has potential to become polluters.

Question 3: What's PDAM role in community based sanitation (CBS)?

All participants agreed that PDAMs can have a role in community based approaches including in sanitation as long as it keeps the principle of community based approach, where ultimate decisions are in the community's hand. It should be demand responsive, using informed choices and participatory planning, and O&M to be managed and borne by users. It was also agreed that PDAMs' role will not take over the other parties' role, such as non-governmental organization (NGO), but should enhance government's role by providing PDAM as one of alternative for

responsible utility. Several roles has been identified by the group, such as providing advanced services (for examples desludging services); technical assistance or/and facilitation for the community; building awareness through socialization, campaign, and promotion, that could be implemented under cooperation with lowest community organization (RT or RW); or even contributing some funds as stimulus or incentive to the community.

Question 4: What's PDAM role in planning for O&M cost recovering city-wide sanitation?

Since water and wastewater are related sectors, planning for both systems by one specific agency is considered as innovative approach. In the past, most of the cities or districts have not made integrated plans, and this is recognized as one of the reasons why sanitation has been given so little attention. Most of the participants thought that the required skills, knowledge, information, and manuals (SOP) already exit in the institution, so this approach will improve efficiency and minimize cost as well. The advantage is not only limited to planning. During the first stage of its operation, it will require an initial subsidy from water to wastewater, and this is possible since the same agency is managing both sectors.

Group 4: Cost recovery issues in sanitation (newly created group for those comfortable to discuss in English)

Question 1. Is sanitation a cost recoverable sector? And rationale?

Some participants in the discussion group defined sanitation works as cost-recovering if there were enough subsidies to break even with the current income. Using that definition, operations in all sectors that are not going bankrupt are cost recovering operations. Others defined utilities as cost-recovering if revenues cover expenses such as operations, maintenance, depreciation, and loan repayments. Using this second definition, most participants felt that Indonesian sanitation utilities could aim for cost recovery in operations, maintenance, and depreciation and that capital investments should be borne by local and/or central and provincial governments. The rationale is that the public in general are not willing to pay a tariff high enough to recover capital costs. They are not willing to pay for the public benefits (a cleaner environment for all) or even the full costs of the private benefits (easy disposal of household wastewater), so the government must start a sanitation program with stimulus grants.

Several participants pointed out that middle and upper class consumers may be able to pay the full tariff, but they are a minority. Examples are housing estates that may be required to build wastewater treatment plants according to government specifications or industries that a required to build wastewater treatment plants for the business or factory effluent.

Question 2. Which financing policy supports the sanitation sector (and which one does not)?

The group divided financing policy into financing for capital works and financing for O&M

Capital Works. Some suggested it was best to start out with simple sanitation schemes that address problems of public health. Even with these basic schemes, Government help for all or most of the initial investment was considered essential. The amount of investment could be reduced if the works were designed for simple and appropriate technology, possibly after citizens have informed choice of level of service.

Other alternatives included providing incentives to the private banking sector to lend for public infrastructure; using part of the property tax; part of business tax; or a national pollution tax on all goods and services.

O&M. Tariff income should cover O&M costs, but if it does not, the government should be clear on how it is to be partially subsidized. In Malaysia, there is a tourist tax, and part of it goes to utilities to keep beaches and waterways clean. The costs of O&M can be charged on top of the electricity bill from PLN. Funds saved from removal of subsidy on oil and gas (or SEAB, *subsidi energi air bersih*) can be used for sanitation costs.

Question 3. Cost recovery vs. affordability

The group felt that many people might be able to afford services but they might be unwilling to pay. So they felt it was more appropriate in the Indonesian context to ask how to increase willingness to pay. Comments fell into two categories: increase willingness to pay and increasing public awareness.

Increase Willingness to Pay. One of the best ways to increase willingness to pay for sanitation is to provide continuous good service; to follow up with consumers and to adjust levels of service to ability to pay. Many customer service benefits do not involve capital cost, so they are easy to implement. Central government or local government can provide incentives or awards for outstanding service providers.

Building Public Awareness. Public awareness is increased by keeping a high profile, painting trucks and equipment a bright color so they will be easily identifiable and appearing in many places. This has the added benefit of making equipment so visible that employees will be discouraged from “borrowing” it outside of working hours. Utilities should practice transparency in service delivery and enforcement of fee collection. Billings could show both the cost to the customer and the full (unsubsidized) cost of the service. Specific messages should be targeted to specific groups. Success stories of good sanitation experience should be shared. Campaigns can be conducted in schools, and there can be visits to sites and open houses. The Indah Water Konsortium has a budget of about US\$500,000 a year for public awareness.

NEXT STEPS

Prior to the Workshop, the Bank consultant visited three cities participating in UWSIEP (Jambi, Kendari, Makassar). The findings from these visits will form the basis for the UWSIEP sanitation components in the three cities. The reports of the visits are compiled and summarized in Annex 4 to this Report and available in full, in Bahasa Indonesian and English on the CD ROM of the workshop report.

Several parties will be involved in the implementation of sanitation components under UWSIEP. During project implementation, coordination mechanisms between UWSIEP PCU/PIU, Dutch Trust Fund ISSDP, WASPOLA and ESP-USAID will be developed.

During the Workshop, three PDAMs participating in UWSIEP have expressed interest in starting to apply approaches outlined in the Workshop.

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ANNEXES

Annex 1: Speakers' presentation materials

Annex 2: Summaries of questions and answers from plenary discussions

Annex 3: Group work materials

Annex 4: Short summary of the three city sanitation reports

Annex 5: Workshop agenda

Annex 6: Participants' list

Annex 7: Summary of workshop evaluation

Annex 8: Press coverage