



## Multi-sectoral action: key to improving access to water and sanitation services

Each year, around 6,000 Filipinos die prematurely from waterborne diseases such as diarrhea, which ranks as the second leading cause of morbidity in the Philippines. In 2000, the incidence of diarrhea was recorded at 1,135 per 100,000 population while the death rate was 5.3 per 100,000 (Morton *et al.*, 2006).

The DOH aims to reduce diarrhea incidence to 750 cases per 100,000 population and the death rate to less than one per 100,000 population by 2010 (DOH, 2005). As of 2006, the target for reduction in diarrhea incidence had already been reached at 708 per 100,000. This decline was largely due to the increase in access to safe water and sanitation services, and handwashing.

However, areas with high diarrhea prevalence continue to persist such as the Cordillera Administrative Region (CAR), Western Visayas (R7), and Mimaropa (R4B) (see Figure 1).

Reducing the disease burden will require providing access to safe water and sanitation services to every Filipino, especially in areas that lag behind in terms of providing these basic services.

### Access to water and sanitation services within the country is still below national targets.

As of 2006, the percentage of households with access to safe water was 83% versus the 94% NOH target for 2010. On the other hand, the percentage of households with access to sanitation was only 75% compared to the 91% NOH target for 2010 (DOH-NEC, 2006). Improvements have been slow and inconsistent as shown by the relatively flat trajectory for safe water access and the seesaw pattern for sanitation services over the years (see Figure 2).

### Population growth outpaces rate of improvement.

The rate of increase in water and sanitation coverage has unfortunately been outpaced by the country's

population growth (see Figure 2). This has led to the demand for alternative water sources like refilling stations, bottled waters, and water peddlers (Morton *et al.*, 2006).

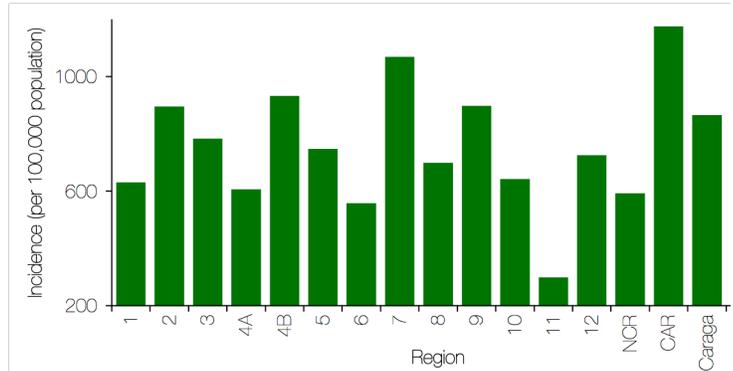


Figure 1. Incidence rate of diarrhea, Philippines, by region, 2006

Note: No ARMM data available.

Sources of data: DOH-NEC, 2006.

### Pockets of low access to safe water and sanitation persist.

Several areas in the country have chalked up persistently low coverage rates for safe water and sanitary facilities. Figure 3 shows the performance per region in terms of the delivery of safe water and sanitary toilets, with ARMM having the poorest access to both safe water and sanitary toilets, at 55% and 34%, respectively (DOH-NEC, 2006). Consequently, ARMM has the highest reported incidence of water pollution, and sanitation- and hygiene-related diseases in the country (Morton *et al.*, 2006).

Comparing the morbidity rate of acute watery diarrhea in the top five lowest against the top five highest regions in terms of safe water coverage, it can be observed that those regions lacking this basic service also have higher morbidity rates (see Figure 4).

Variation is also observed across income groups. Access to basic sanitation by low-income families is 22% lower than that of high-

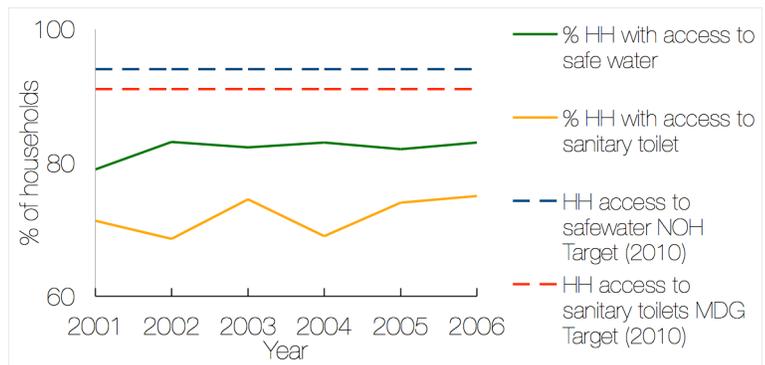
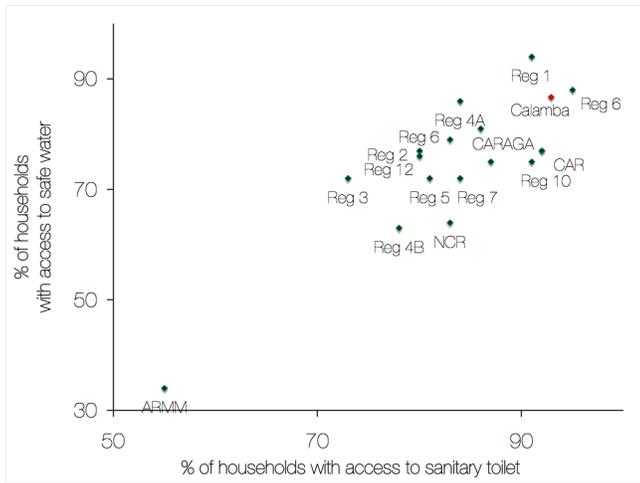


Figure 2. Number of households with access to safe water and sanitary toilets, Philippines, 2001–2006

Sources of data: DOH-NEC, 2006.

income families. Disparity also occurs between rural and urban households, with only 59% of rural households having access to basic sanitation as compared to 80% coverage among urban households (Morton *et al.*, 2006).



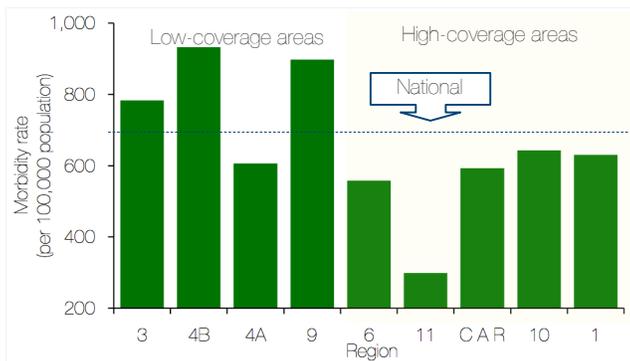
**Figure 3.** Safe water and sanitary toilet coverage, Philippines, by region, 2006

Sources of data: FHSIS, 2006.

**In areas with access to safe water and sewerage facilities, the quality of service is substandard**

Surveys show that one half or more of LGU-operated water systems do not meet drinking water quality standards (De Dios, 2008). This could explain why four out of seven waterborne disease outbreaks recorded in 2007 to 2008 were caused by the contamination of water from local water districts or LGU-managed water systems.

In addition, although more than half of the Filipino households having septic tanks, these are poorly constructed and not maintained properly. Less than 1% of septic tanks are known to undergo regular desludging and the appropriate treatment (Morton *et al.*, 2006).



**Figure 4.** Safe water coverage and morbidity due to watery diarrhea, Philippines, selected regions, 2006

Sources of data: FHSIS, 2006.

To illustrate the seriousness of the need to set standards for these basic services, it would be instructive to take the case of Calamba, Laguna which was recently struck by a massive typhoid outbreak despite the relatively high coverage of safe water (93%) and sanitary toilets (88%) water quality (for more details, see Box 1). This highlights the need to adequately maintain LGU water systems and monitor.

**Access is hampered by financing, regulatory and operational gaps.**

**There is inadequate investment in safe water and sewerage services.**

The high cost of capital investment and operations in water and sanitation, alongside other factors such as low tariffs, low user-fees, and poor revenue generation has led to under-investment, with many local water utilities’ revenue not even covering recurrent costs, especially for sanitation (ADB, 2007).

There is also a debate on whether water and sanitation services should be publicly or privately provided. Privatization under a well-developed contract with the public sector, has often yielded better results than public sector utilities alone (World Bank, 2008).

With private sector involvement, the role of the government as regulator becomes more crucial as it needs to measure financial and technical performance of the private provider, and to develop a right balance of minimum standards with penalties and incentives. Regulatory authorities should also ensure the coverage of low-income areas, because private providers are inclined to focus on higher-income areas (World Bank, 2000). Privatization can also exacerbate unequal access and provide poorer services if regulation is weak (Manahan, 2008).

Given the government’s inability to fully finance water and sanitation services, private sector involvement appears favorable. For example, the MWSS privatization laid the foundation for

**Box 1. Calamba Typhoid Outbreak**

In March 2008; a state of calamity was declared in Calamba, Laguna due to an epidemic outbreak of typhoid that resulted in 2,562 cases with two deaths. Coping with the high demand proved too overwhelming for the Calamba health system such that the Department of Health (i.e., the Health Emergency Management Staff (HEMS), the National Epidemiology Center (NEC), and DOH hospitals in the National Capital Region had to provide additional personnel, drugs, and financial assistance. Direct costs alone for drugs and financial assistance amounted to PhP 1.9 M (HEMS, 2008).

The source of contamination was the local water system where sewage apparently contaminated the piping system. An initial test showed negative for contamination but a subsequent test using the *colilert* method revealed that the water samples tested are positive for *coliform* contamination.

improvements in sewerage and sanitation services for most of the National Capital Region (Shah *et al.*, 2003).

### The regulatory environment is weak.

There are several government agencies involved in water and sanitation, with some of the agencies having unclear and overlapping mandates (see Figure 4). This arrangement weakens institutional accountabilities, especially in the absence of a strong oversight mechanism.

At the national level, the National Water Resources Board (NWRB) is not properly equipped in terms of personnel or resources to investigate and process water permit applications. In many cases, the directives of NWRB are ignored since it does not have "enforcement powers" to exact compliance with those directives (Barba, 2004).

The regulatory environment is also weak at the local level wherein water providers are either the LGU-operated water districts or are under the authority of the Local Water Utilities Administration (LWUA). There is conflict of interest when it comes to monitoring compliance due to the fact that the service providers are also the regulators, i.e., the local chief executives (LCEs) also sit as members of the water district boards. Comparing LGUs and water districts to private industrial and commercial institutions, the latter invests more on water treatment facilities since they face penalties or closures if they are not able to comply with environmental regulations. On the other hand the LGUs and Water Districts do not face much disincentive if they are not able to comply with such regulations.

Furthermore, the infrastructure for water quality testing has deteriorated. Water testing facilities have not been adequately maintained, as these were not managed as financially sustainable ventures. A review by the World Bank's First Water Supply, Sewerage, and Sanitation Sector Project showed that only 50% of the provinces have testing facilities that are operational.

### The national framework needs to be operationalized.

The Clean Water Act of 2004 consolidates the different fragmented laws on water resources management and sanitation. The Act provides fiscal and non-fiscal incentives to establishments that put up industrial wastewater treatment, and adopt water pollution control technology, cleaner production, and waste minimization. The act also mandates government financial institutions to accord high priority to extending financial services to water districts, LGUs and private companies engaged in sewerage services.

There is also a framework for Environmental Health - the Philippine National Environmental Health Action Plan (NEHAP)-which aims to foster better collaboration of different stakeholders and allow participation of the public in decision-making. NEHAP is implemented by different agencies (DOH, DENR, DILG, DPWH, DOST, DA, etc.) with environmental health-related activities coordinated through the Inter-Agency Committee on Environmental Health (IACEH).

While frameworks provided for in the NEHAP and the structure of the IACEH specify roles and functions of the different agencies, there is still a need to review and redefine, if needed, the mandates in light of new laws and issuances, and to specify operational frameworks and strategies to implement their mandates. More importantly, financing strategies and arrangements need to be developed for ensuring the people's access to water and sanitation services.

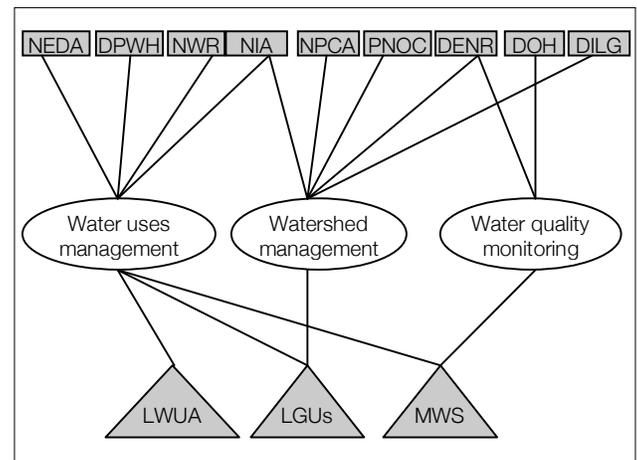


Figure 4. Major institutions in the water sector

Source: ADB, 2007.

Currently, the National Economic and Development Authority (NEDA) and the NWRB are drafting the Philippine Water Supply Sector Roadmap. The roadmap is expected to enhance strategic collaboration among the agencies involved in the water sector (GTZ-Philippines, 2008).

### The proposed roadmap of the water supply sector should provide customized strategies, given local conditions.

#### Tap the private sector where they are present

The private sector makes for a viable alternative in the bid to expand the scope and reach of water and sanitation services, given the time and resource constraints of government. Internalizing sewerage and sanitation costs in water generation and distribution may also lead to a comprehensive approach to water and sanitation investments. The government needs to develop the capacity to design contracts and regulate providers under these settings.

#### Focus government investments for the poor.

In areas where private sector response is not feasible, the limited finances of government should be focused

on the top 10 areas where the access problem is most acute. To secure financing, the government may

### Key Strategies:

1. Elicit private sector participation.
2. Focus limited government funds on poorly performing areas and populations.
3. Link incentive systems to performance benchmarks.
4. Aim for a concerted and coordinated response among stakeholders.

create a “water and sanitation fund” designed to finance a catch-up strategy to scale up access to safe water and sanitation in these areas. Incentive and recognition systems (i.e. access to central transfers and grants; scorecards etc.) need to be linked to performance benchmarks in order to optimize current fund sources. In more developed areas where pockets of poor communities are found, specific financing arrangements between the government and private concessionaires need to be negotiated to promote access.

### Concerned agencies need to clarify their roles and link with the support systems.

Implementation of the roadmap will require a concerted and coordinated response among key stakeholders; therefore, roles and responsibilities need to be well-delineated, and appropriate performance benchmarks need to be specified. Oversight functions and mechanisms also need to be defined.

The agencies concerned also need to be supported in terms of agency-level operational specification of their mandates. This is especially true for agencies that provide direct support to LGUs, particularly those that intend to or have already embarked on the privatization of water and sanitation services

Specifically the DOH can contribute to increasing access to safe water and sanitation services by: (1) increasing investments in safe water and sanitation by linking and leveraging central grants and transfers to promote access especially for the poor. The DOH can do this, through instruments such as the Province-wide Investment Plan for Health, LGU scorecard and its public health commodities and grants; (2) updating standards and compliance monitoring mechanisms for safe water and sanitation regulations; (3) providing technical assistance and

capacity to strengthen water testing by local water systems; (4) promoting hygiene (e.g. hand washing), family planning, and breastfeeding, and linking these efforts under a comprehensive maternal, neonatal, and child health framework; (5) providing technical and operational support to surveillance, outbreak management, and containment; and (6) generating and providing up-to-date technical advise to appropriate agencies in terms of the health effects of water contamination, poor sanitation and other environmental health concerns.

### Acronyms

DENR	—	Department of Environmental and Natural Resources
DILG	—	Department of Interior and Local Government
DOH	—	Department of Health
DPWH	—	Department of Public Works and Highways
LGU	—	local government unit
LWUA	—	Local Water Utilities Authority
MWSS	—	Metro Manila Waterworks and Sewerage System
NEDA	—	National Economic and Development Authority
NIA	—	National Irrigation Authority
NPC	—	National Power Corporation
NWRB	—	National Water Resources Board
PNOC	—	Philippine National Oil Company

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