Service Delivery Assessment
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Water Supply and Sanitation in the Philippines

Turning Finance into Services for the Future

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This report is the product of extensive collaboration and information sharing between many government agencies, non-government organizations and private sector. The core team of the National Economic Development Agency (NEDA) has been a key partner with the Water and Sanitation Program of the World Bank in facilitating the Service Delivery Assessment. The authors acknowledge the valuable contributions of all other agencies that participated, specifically the Department of Budget and Management, Department of Health, Department of Interior and Local Government, Department of Public Works and Highways, Department of Social Welfare and Development, Development Bank of the Philippines, Land Bank of the Philippines, Local Water Utilities Administration, Metropolitan Waterworks and Sewerage System, the National Water Resources Board as well as other government agencies, development partners and international and local NGOs active in the sector.

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The SDA was carried out under the guidance of the World Bank's Water and Sanitation Program and local partners. This regional work, implemented through a country-led process, draws on the experience of water and sanitation SDAs conducted in more than 40 countries in Africa, Latin America, and South Asia.

An SDA analysis has three main components: a review of past water and sanitation access, a costing model to assess the adequacy of future investments, and a scorecard that allows diagnosis of bottlenecks along the service delivery pathways. SDA's contribution is to answer not only whether past trends and future finance are sufficient to meet sector targets for infrastructure and hardware but also what specific issues need to be addressed to ensure that finance is effectively turned into accelerated and sustainable water supply and sanitation service delivery.

The Water and Sanitation Program is a multi-donor partnership, part of the World Bank Group's Water Global Practice, supporting poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP's donors include Australia, Austria, Denmark, Finland, France, the Bill & Melinda Gates Foundation, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank.

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Strategic Overview

Data from the UNICEF-WHO Joint Monitoring Programme indicate that the Philippines is on track to meet its Millennium Development Goal targets for water supply and sanitation.[1] However, with a population of more than 94 million in 2011, there are still some 7.5 million Filipinos without access to improved water supply facilities and 24 million without access to improved sanitation. Roughly 8.3 million people still defecate in the open and just 3% are connected to centralized sewerage systems.

Sector stakeholders are looking beyond the MDG attainment, and sector roadmaps for water supply and sanitation set out a vision of universal coverage by 2025 for water supply[2] and 2028 for sanitation.[3] Furthermore, the Department of Health National Sanitation Policy issued in 2009 calls for zero open defecation in all *barangays*[4] by 2022. Without political commitment, improved institutional arrangements, increased funding for the sector and the adoption of viable operational strategies that emphasize sustainable user outcomes and equity, it is unlikely that these ambitious targets will be met.

To achieve the country's vision of inclusive growth and poverty reduction,[5] improved water supply and sanitation services are essential. In urban growth centers, reliable access to adequate water for domestic, commercial and other uses is vital to sustain economic activities. For the country as a whole, sustainable access to adequate water and sanitation services is needed to protect health and reduce the costs associated with water- and sanitation-related illness, malnutrition and losses in productivity.

To achieve government targets for 2025 for water supply, the additional population requiring access is estimated at 2.75 million per year with a total investment requirement of US$838 million per year. For sanitation to achieve universal coverage by 2028, the additional population requiring access annually is estimated at 3.0 million with a total investment requirement of US$619 million per year.

The obstacles to achieving universal, sustainable access to improved water supply and sanitation services are primarily institutional and financial in nature. In particular, the sector has suffered from a lack of leadership and poor co-ordination among the many agencies involved in service provision. Until recently there has been no designated lead agency for the sector, which complicates planning and operations. Regulation remains fragmented and is generally weak, except in the case of the large concessions in Manila, government-owned water utilities (districts) and for some private utilities/associations that have a license. In particular, local governments, who self-regulate their own water systems, are not held accountable for meeting performance targets either in terms of service quality or coverage. The limited capacity of many local service providers contributes to the problem to sustain and expand service beyond the urbanised center of municipalities and cities.

[1] Joint Monitoring Programme of the WHO-UNICEF, 2013
[2] Philippine Water Supply Sector Roadmap, 2nd Edition, 2010
[3] Philippine Sustainable Sanitation Roadmap, April 2010
[4] The barangay is the smallest unit of governance in the Philippines. The country has 41,994 barangays nationwide.
[5] Societal goal of the Philippine Development Plan 2010 to 2016

The water and sanitation sector is not given a high priority on the national government agenda and annual allocations are inadequate to improve and expand access to services for the underserved poor. Only the urban water supply sub-sector enjoys a near-adequate level of funding, but the bulk of the resources are reserved for Metro Manila; funding for other urban centers (both capital and operational) is inadequate, as it is for both water supply and sanitation in rural areas. The inequalities in access are starkest and most persistent for rural areas: 93% of the richest rural households have access to improved sanitation, as compared to only 27% among the poorest quintile; and for water supply, 69% of the richest quintile enjoys piped house connections, while only 4% of the poorest quintile does, for other improved water sources the richest have near universal access, and the poorest quintile remains low at 66%.[6]

Rural sanitation remains the subsector where access remains lowest, progress is expected to rely heavily on household self-investments, and government financing for communications campaigns, operational expenses and targeted support for the poor require scale-up to reach the ambitious goal of the elimination of open defecation in the next decade. The urban sanitation sector, with a high level of access to improved and shared on-site facilities, is at a critical junction where city-level investments in treatment facilities and septage management are to be prioritized, alongside adequate institutional and regulatory frameworks.

While the challenges are many, the prospects for progress are improving as government has signalled its high-level commitment to rationalize institutional arrangements for the sector. It intends to a) clarify leadership and coordination through appointing a lead department for the water and sanitation sector, b) separating institutional responsibilities for service provision through a utility approach, and c) consolidating regulation, presumably under a future National Water Resources Management Office, while during transition expanding the mandate of the National Water Resources Board. The ongoing institutional review is expected to help identify which organization would be most suitable to host the “lead department”. The proposed new arrangements will help to establish a better enabling environment for operational improvements within each of the four sub-sectors. While Philippine government banks and the Philippines Local Water Utilities Administration agencies already offer attractive products for water supply financing, further innovations and leveraging commercial finance, are expected to help reduce sector financing gaps in order to reach the universal access goals.

This Service Delivery Assessment was a multi-stakeholder process in cooperation with government agencies in the Philippines. Priority action points emerging from the analysis are summarised on the next page.

[6] JMP/UNICEF Equity trees, special tabulation based on NDHS 2008.

Sector-Wide: Institutions, Financing and Monitoring

- Implement new institutional arrangements including an expanded role for the National Water Resources Board as the sector regulator and its transition to a National Water Resources Management Office, and the establishment of a dedicated Water and Sanitation Unit as a lead sector agency (hosting department/agency to be identified through institutional review).
- Improve coordination mechanisms between actors at provincial and municipal levels
- Establish a national capacity building program, especially to address rural subsectors, by consolidating various initiatives already in place including the regional capacity building hubs established under DILG
- Harmonise data collection systems, standardise the definition of terms and develop a coherent sector monitoring framework
- Establish a collective platform for a multi-stakeholder review process to monitor subsector performance (for example Joint Annual Sector Reviews)
- Increase sector investment, particularly in rural areas where large disparities exist between rich and poor, as well as funding for "software", specifically for rural sanitation programs
- Align budgeting to support the implementation of long-term strategies and investment plans by public service providers, and translate these into annual work plans and budget
- Introduce key results areas for local water supply and sanitation services to increase local accountability for service improvements and incentivize LGUs to access additional funding sources including matching grants from national government and private sector sources
- Create a national account for water and sanitation, disaggregated between urban and rural to enable monitoring of financial flows towards the subsectors

Priority Actions for Rural Water Supply

- Enable economies of scale and financial viability in service provision by encouraging the consolidation of small service providers
- Formalize the management of small piped schemes and introduce light-handed regulation including the use of performance contracts to drive service quality and reliability and incentivize service provision to the poor
- Expand the provision of technical support to small providers, combined with business planning services to facilitate access to finance for system expansion
- Operationalise policies for full cost recovery for rural scheme operation to reduce the investment gap and improve sustainability of services
- Enhance rural water supply improvements (piped schemes) via other poverty alleviation programs such as the Bottom-Up Budgeting Process and the National Community Development Driven program
- Develop systems for management support to schemes operated by community-based organizations, through partnerships with private sector and water districts

Priority Actions for Urban Water Supply

- Establish a comprehensive regulatory framework covering all types of service providers, including local government-run schemes, water districts plus private and independent operators, both large and small, and consolidate these roles gradually within a national regulator
- Develop a financing policy and strategy, linked with a graduation policy for utilities based on creditworthiness, in order to attract commercial finance, and accelerate access to concessional finance to support the expansion of services
- Strengthen the capacity of local government to contract, manage and oversee private sector participation modalities, in order to leverage private sector investment, use professional capabilities of the private sector and encourage the consolidation of small-scale service providers
- Introduce multi-stakeholder, performance-based planning and monitoring including a system of annual subsector reviews
- Build capacity and increase the accountability of LGUs for improving the quality and sustainability of service provision, using performance benchmarks and an incentive and/or penalty system

Priority Actions for Rural Sanitation and Hygiene

- Operationalize the Zero Open Defecation program, within the framework of an equitable rural sanitation and hygiene promotion policy, a capacity building plan, an implementation plan and a monitoring system
- Develop a financing strategy for the program that includes public investments to generate household demand for sanitation, output-based subsidies to the very poor and collective incentives for barangays and LGUs in achieving Zero Open Defecation
- Strengthen rural sanitation promotion via other poverty alleviation programmes, such as the Bottom-Up Budgeting Process, the National Community Development Driven programme and target poor households through the National Cash Transfer Program (4Ps)

Priority Actions for Urban Sanitation and Hygiene

- Establish institutional arrangements to facilitate implementation of the National Sewerage and Septage Management Program (NSSMP) and increase Local Government and Water District accountability for the coverage and quality of urban sanitation services
- Develop a sanitation investment framework and mandate local governments to adopt City Sanitation Plans incorporating measures to improve cost recovery and extend affordable services to the poor
- Adopt a cost-effective approach to investment whereby the gradual expansion of sewerage is complemented by measures to maximize connections and to improve fecal sludge management, since most households will continue using septic tanks for the foreseeable future
- Build local capacity to enable successful planning and implementation of the NSSMP

Contents

Abbreviations and Acronyms

APIS	Annual Poverty Indicators Survey
BOT	Build Operate Transfer
CDA	Co-operative Development Authority
DAR	Department of Agrarian Reform
DBM	Department of Budget and Management
DILG	Department of Interior and Local Government
DOF	Department of Finance
DOH	Department of Health
DPWH	Department of Public Works and Highways
DSWD	Department of Social Welfare and Development
EO	Executive Order
GOCC	Government-owned and Controlled Corporation
INFRACOM	Infrastructure Committee
JMP	UNICEF-WHO Joint Monitoring Programme
KALAHI-CIDSS	Kapit-Bisig Laban sa Kahirapan (Comprehensive, Integrated Delivery of Social Services)
LBP	Land Bank of the Philippines
LGC	Local Government Code
LGU	Local Government Unit
LWUA	Local Water Utilities Administration
MDF	Municipal Development Fund
MDG	Millennium Development Goal
MWSS	Metropolitan Waterworks and Sewerage System
MWCI	Manila Water Company Incorporated
MWSI	Maynilad Water Services Incorporated
NAPC	National Anti-Poverty Commission
NAWASA	National Water and Sanitation Association of the Philippines
NCDDP	National Community-Driven Development Program
NCR	National Capital Region
NDHS	National Demographic and Health Survey
NEDA	National Economic and Development Authority
NHTS-PR	National Household Targeting System for Poverty Reduction
NSO	National Statistics Office

NSSMP	National Sewerage and Septage Management Program
NWRB	National Water Resources Board
O&M	Operation and Maintenance
ODA	Official Development Assistance
P3W	President's Priority Program for Water
PDAF	Priority Development Assistance Fund
PhP	Philippine Peso
SALINTUBIG	Sagana at Ligtas na Tubig para sa Lahat Program
SCWR	Sub Committee on Water Resources (of NEDA Infrastructure Committee)
TISP	Transition Investment Support Plan
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WB	World Bank
WD	Water District
WHO	World Health Organization
WSP	Water Service Provider
WSP-WB	Water and Sanitation Program of the World Bank
WSS	Water Supply System

1. Introduction

Water and sanitation Service Delivery Assessments (SDAs) are being carried out in seven countries in East Asia and the Pacific region under the guidance of the World Bank's Water and Sanitation Program and local partners. This regional work, implemented through a country-led process, draws on the experience of water and sanitation SDAs conducted in more than 40 countries in Africa, Latin America, and South Asia.[7]

The SDA analysis has three main components: a review of past water and sanitation coverage, a costing model to assess the adequacy of future investments and a scorecard that allows diagnosis of bottlenecks along the service delivery pathway. SDA's contribution is to not only determine whether past trends and future finance are sufficient to meet sector targets for infrastructure and hardware but also to identify specific issues that need to be addressed to ensure that finance is effectively turned into accelerated and sustainable water supply and sanitation service delivery. Bottlenecks can, in fact, occur throughout the service delivery pathway—all the institutions, processes and actors that translate sector funding into sustainable services. Where the pathway is well developed, sector funding should turn into services at the estimated unit costs. Where the pathway is not well developed, investment requirements may be gross underestimates because additional investment may be needed to 'unblock' the bottlenecks in the pathway.

The scorecard looks at nine building blocks of the service delivery pathway, which correspond to specific functions classified in three categories: three functions that refer to enabling conditions for putting services in place (policy development, planning new undertakings, budgeting), three actions that relate to developing the service (expenditure of funds, equity in the use of these funds, service output), and three functions that relate to sustaining these services (facility maintenance, expansion of infrastructure, use of the service). Each building block is assessed against specific indicators and is scored from 0 to 3 accordingly. The scorecard uses a simple color code to indicate building blocks that are largely in place, acting as a driver for service delivery (score >2, green); building blocks that are a drag on service delivery and that require attention (score 1–2, yellow); and building blocks that are inadequate, constituting a barrier to service delivery and a priority for reform (score <1, red).

The SDA analysis relies on an intensive, facilitated consultation process, with government ownership and self-assessment at its core. The SDA in the Philippines is a joint initiative of the National Economic and Development Authority (NEDA), the World Bank Water and Sanitation Program (WSP) and with support of the United Nations Children's Fund (UNICEF). Kick-off workshops with perception scoring were held in the 3rd quarter of 2012, followed by extensive data collection. Two consultation workshops were subsequently organized in February and April 2013 where scorecard results and priority actions were identified. Initial results have also been presented to the Inter-Agency Sub-Committee on Water Resources of NEDA and to the Philippine Development Forum. The Service Delivery Assessment builds other recent assessments, and reform initiatives, currently being considered by the Office of the President, such as the Study on Developing the Institutional Framework for the Water Supply and Sanitation Sector and Identifying Investment Plans and Programs.[8]

[7] For example, refer to the Africa CSO synthesis report available at http://www.wsp.org/sites/wsp.org/files/publications/CSO-Synthesis-Report.pdf

[8] These includes the following: the recently concluded UNDP-MDGF 1919 study on Determining Investment Requirements for the Water Supply Sector (2013), the study on Developing the Institutional Framework for the Water Supply & Sanitation Sector and Identifying Investment Plans and Programs (2013) and the study on the proposed National Water Resources Management Office (2012).

Figure 1.1 Map of the Philippines

2. Sector Overview: Coverage, Trends and National Goals

Coverage: Assessing Past Progress

The 2008 National Demographic and Health Survey (NDHS) of the National Statistics Office (NSO, 2009, JMP, 2012a and 2012b) found that about 90% of the Philippine population had access to improved water supply. Based on the survey, common sources of improved drinking water were piped water into dwelling/yard/plot (30%) and tube wells or boreholes (22%). Access to improved water supply sources in urban areas (94%) was higher compared to rural areas (86%). Access to piped water into dwelling/yard/plot among the urban population (38%) was also nearly two times higher than their counterparts in rural areas (22%).

Estimates from the Joint Monitoring Programme (JMP) of the World Health Organization (WHO) and UNICEF are not very different from the results of the NDHS 2009. The JMP (2013) shows that access to improved water supply for 2011 was about 92%. However, it indicates a narrower gap in access to improved water supply between urban (93%) and rural (92%) areas for the same period.

The 2008 NDHS also found that about 68% of the Philippine population had access to improved sanitation facilities. This rises to about 86% if one includes shared facilities as improved.[9] Pour-flush toilets to septic tanks (68% of the total population) were the dominant facility and access to sewer facilities remained very low (3%). An estimated 10% of the population practiced open defecation. Access to improved sanitation facilities (including shared facilities) was much higher in urban areas (94%) compared to rural areas (79%). Access to septic tanks was also more common among the urban population (84%) compared to rural population (53%). Open defecation was close to four times more prevalent in rural areas (15%) than in urban areas (4%).

The JMP (2013) calculated that 74% of the Philippine population has access to improved sanitation facilities. As with the NDHS, JMP estimates also reflect higher access rates to improved facilities in urban areas (79%) compared to rural areas (69%) in 2011.

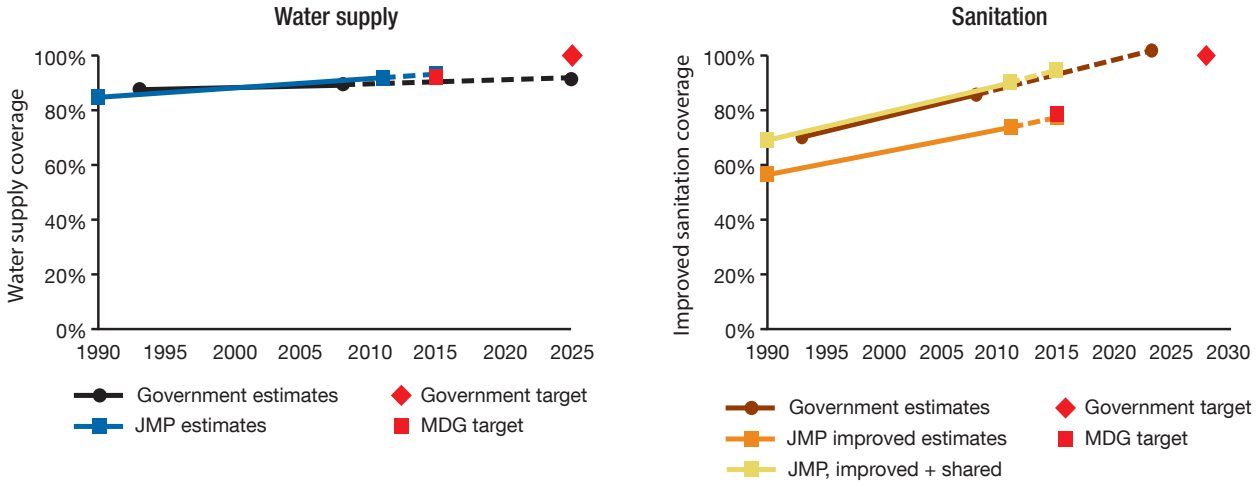
Figure 2.1 shows that based on JMP and government (NDHS) estimates, access to improved water supply and sanitation has increased over time. Owing to different methodologies, the increases in the access rates for water supply with the government estimates are smaller than the JMP estimates. In the case of sanitation, changes in access rates do not vary too much but government estimates are higher than JMP estimates due to the treatment of shared facilities as improved.

The Philippines is on its way to attaining the Millennium Development Goals targets for water supply and sanitation in 2015.[10] However, the target of universal access by 2025, which is expressed in the Philippine Water Supply Sector Roadmap (NEDA, 2010), seems out of reach if present trends continue. The target of universal access by 2028, which is expressed in the Philippine Sanitation Roadmap (DOH, 2009), seems attainable if current trends continue and if shared facilities are included in the definition of 'safe and adequate sanitation'.

[9] The JMP does not count shared toilets as improved facilities.

[10] The MDGs for water supply and sanitation state that by 2015, the country would halve the proportion of its 1990 population who did not have sustainable access to safe drinking water and basic sanitation facilities, respectively 93% for improved source of water supply and 79% for improved sanitation.

Figure 2.1 Progress in Water Supply and Sanitation Coverage



Investment Requirements: Testing the Sufficiency of Finance

This section presents estimates of the financial investments needed to meet the targets for the four subsectors; namely, rural water supply, urban water supply, rural sanitation and urban sanitation. Investment or capital expenditure (CAPEX) requirements, which are calculated using the SDA costing tool, represent hardware costs of new facilities and replacing existing facilities (replacement costs). Estimated CAPEX requirements are also disaggregated between public and private/household investments.

Key inputs in the estimation of investment requirements are (a) baseline and target year coverage rates, (b) population projections, (c) unit costs of different facilities, and (d) technology mix at the initial and target years. Coverage rates for the base year (2008) were taken from the NDHS 2008 while coverage rates for the target years were 100% in 2025 for water supply and 100% for sanitation in 2028. A more detailed description of the other inputs along with the key assumptions and sources of information are presented in Annex 2.

The costing tool also requires information on investments from the various sources – government, development partners, NGOs, utilities, private sector and households. The information is used to generate estimates of anticipated investments for 2012 to 2014 and recent investments for 2009 to 2011. Estimated investments are grouped into three sources of funding: domestic (government, public utilities, local NGOs), households, and external (development partners and foreign NGOs).

Investment data were collected from publicly available documents and websites such as various releases of the General Appropriations Act and the Budget of Expenditures and Sources of Financing. The process was followed by stakeholder visits to validate the data and to disaggregate

expenditures as follows: (a) sector - water supply or sanitation, (b) location – rural or urban, (c) nature – hardware or software, (d) year, and (e) budget versus actual. A more detailed description of the sources and limitations of the information used in the analysis is presented in Annex 2.

Investment gaps are calculated by comparing investment requirements with anticipated investments and recent investments.

Table 2.1 presents the annual averages of the CAPEX requirements and anticipated investments that were estimated for the Philippines. It indicates that national targets will be met if about 2.8 million people per year gain access to improved water supply and 3.0 million people per year gain access to improved sanitation facilities. Due mostly to its relatively fast population growth, a slightly larger proportion of the beneficiaries are situated in urban areas (around 55%).

The 2.8 million people per year that will need access to improved water supply facilities translate to CAPEX requirements of US$838 million per year.[11] Mostly explained by relatively high unit cost per capita, CAPEX requirements for water supply are 35% higher than sanitation. CAPEX requirements for the urban population are also estimated to be higher than the rural population because of the higher number of required beneficiaries and per capita costs.

Table 2.1 also shows that anticipated public CAPEX for water supply and sanitation is estimated at US$338 million per year and US$296 million per year, respectively. Combined, these account for about 0.3% of the 2012 Gross Domestic Product. Domestic funding sources are expected to provide a very large share (97%) of anticipated public expenditures,[12] with the large majority (95%) of anticipated public CAPEX targeted at urban areas, even though these only represent 55% of all people that need to gain access to achieve the targets.

Table 2.1 Coverage and investment figures[a]

	Coverage		Target year (2025/ 2028) [b]	Population requiring access	Annual CAPEX requirements		Anticipated public CAPEX 2012-2014			Anticipated household CAPEX	Annual surplus (deficit)[c]
	1993	2008			Total	Public	Domestic	External	Total		
	%	%	%	'000/year	US$ million/year						
Rural water supply	83%	86%	100%	1,343	324	189	29	3	32	23	-269
Urban water supply	93%	94%	100%	1,410	514	315	302	4	306	194	-14
Total water supply	**88%**	**90%**	**100%**	**2,754**	**838**	**503**	**331**	**7**	**338**	**217**	**-283**
Rural sanitation	59%	79%	100%	1,171	182	12	1	0	1	20	-162
Urban sanitation	83%	94%	100%	1,811	437	274	284	11	295	163	21
Total sanitation	**71%**	**86%**	**100%**	**2,982**	**619**	**285**	**286**	**11**	**296**	**183**	**-140**

Note: a) Columns may not add up due to rounding. b) The target years for water supply and sanitation are 2025 and 2028, respectively. c) This is equal to Total anticipated public CAPEX for 2012-2013 plus Anticipated household CAPEX less Total annual CAPEX requirement.

Source: SDA costing

[11] Estimates in the current analysis are substantially higher than those presented in the study of De Vera et al. (2013). The differences in the two sets of estimates are presented in detail in Annex 3.

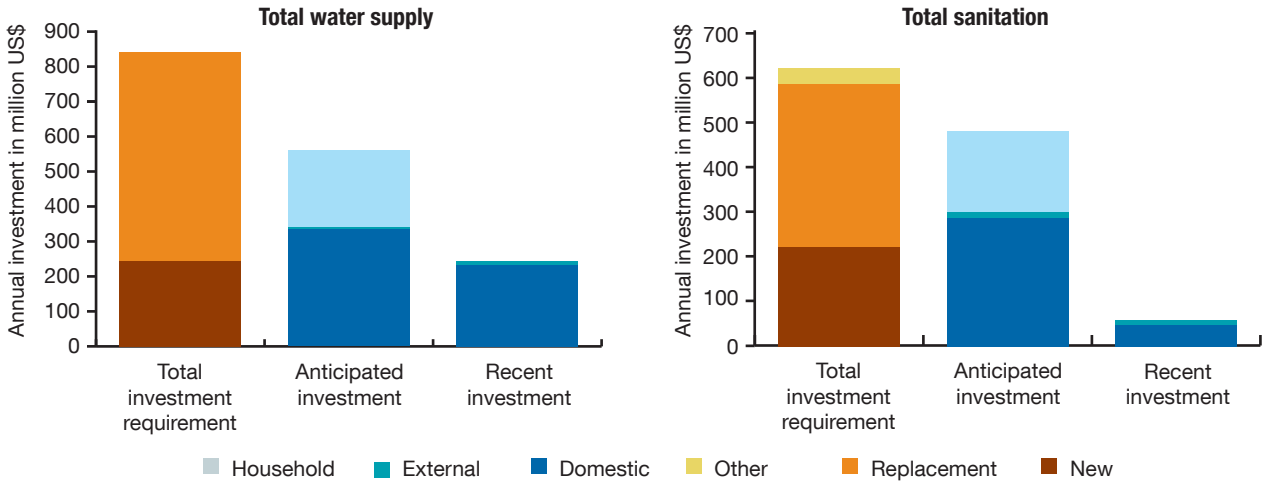
[12] External sources represent anticipated expenditures of development partners or donor agencies. The domestic private sector is represented by Manila Water, Maynilad, and some private financial institutions.

Subtracting CAPEX requirements from the sum of anticipated CAPEX contributions of the public and households suggests deficits of US$ 283 million per year and US$ 140 million per year for water supply and sanitation, respectively. If the anticipated spending pattern continues, targets are unlikely to be met. It also means that governments and service providers are expected to invest even more in water supply and sanitation after 2014.

The small surplus estimated for urban sanitation and the small deficit for urban water supply in Table 2.1 should be interpreted with care. Most of the domestic component of anticipated public CAPEX is represented by expenditures of the two private concessionaires in Metro Manila – Manila Water and Maynilad.[13] This implies potentially large deficits in urban areas outside Metro Manila. The anticipated household CAPEX for urban water supply and sanitation are also both larger than the estimated deficit and surplus for urban water supply and sanitation, respectively. Since anticipated household CAPEX was modelled in the analysis as a fixed share of the total costs, the assumption is that governments are successful in eliciting such investments by households as user contributions. The key implication is that the estimated surplus in urban sanitation is shallow and could easily become deficit should households spend less than their estimated contribution.[14] For the same reason, the deficit for urban water supply could be much larger than reported in Table 2.1.

Aggregate and subsector-specific deficits can be reduced by accounting for omitted expenditures of local government units, water districts and other stakeholders. While the extent of the reduction is difficult to determine, it seems unlikely that the observed pattern can be reversed at least for rural areas. In addition, although some expenditures in rural services might have been missed in the data collection, one needs to considers the fact that the rural sanitation subsector in particular, but also the rural water supply sector, are assumed to rely heavily on household CAPEX. The same arguments hold here, only if government and stakeholders are successful in promotion and social mobilisation, it will successfully mobilise these household self-investments.

Figure 2.2 Sector Financing: Required, Anticipated (2012-2014) and Recent Expenditures, (2009-2011)



Source: SDA costing

[13] The details are provided in succeeding chapters. Also note that planned capital expenditures of Maynilad and Manila Water are tentative. The values are still being reviewed and subject to the approval of the regulatory office of the Manila Waterworks and Sewerage System (MWSS).

[14] A similar situation could also occur if the MWSS substantially reduces the planned capital expenditures of Maynilad and Manila Water.

Figure 2.2 indicates that anticipated investments (excluding the contribution of households) for 2012-2014 in water supply and sanitation are higher than recent investments from 2009-2011. While this is a good sign, anticipated investments still fall short of investment requirements.

Current and future infrastructure would also need to be supported by an estimated US$342 million/year in operation and maintenance (O&M) expenditures (Table 2.2). A large proportion (62%) of this amount is for water supply. The critical issue here is whether tariffs of the utilities are sufficiently high to cover operation and maintenance requirements to support the water supply and sanitation facilities they need to maintain (and on top of that allow for depreciation to replace investments and support expansion). For facilities that are maintained by households, e.g. toilets and hand pumps, the issue is whether such O&M services are readily available and affordable for rural households, to avoid breakdown and collapse.

Table 2.2 Annual operation and maintenance costs

Subsector	O&M US$ million/year
Rural water supply	62
Urban water supply	148
Water supply total	**210**
Rural sanitation	32
Urban sanitation	100
Sanitation total	**132**

Note: Totals may not add-up due to rounding

Source: SDA cousting

3. Reform Context

Since the Philippines' independence in 1946 until 1955 most water supply systems were operated by local authorities. From 1955 to 1971, control of urban water supply was passed to the national government.[15] In the early years of the Marcos Administration, several Presidential Decrees were passed that were designed to organize urban water supply and sanitation service delivery through national agencies such as the Metropolitan Waterworks and Sewerage System (MWSS), the Local Water Utilities Administration (LWUA) and the Rural Waterworks Development Corporation (which was eventually absorbed by LWUA). MWSS was a service provider while LWUA and the RWDC were specialized lending agencies that also provided organisational and technical assistance. LWUA organized Water Districts in urban areas and the RWDC organized the Rural Water Supply and Sanitation Associations in rural areas. The RWDC was eventually absorbed by LWUA after seven years.

With the devolution of responsibilities on basic service provision to the local government units (LGUs) under the Local Government Code in 1991, barangays, municipalities, cities and provinces were allowed to finance, operate and maintain their own water supply systems. Since then a number of management and private sector partnership models have emerged. The scope for private sector participation increased further following a Supreme Court ruling that Water Districts do not have the exclusive right to operate public water supplies in cases where they fail to provide an acceptable service to the entire population in the service area. This has opened the door for private sector operators (as well as not-for-profit associations) to deliver services in areas with high demand.

In 1995, the legal basis for the world's largest water privatisation was approved through the National Water Crisis Act. Two years after, two joint venture companies succeeded in each securing for themselves a 25-year concession agreement under the MWSS. Halfway through this agreement, both companies succeeded in negotiating a 15-year extension to address their urban sanitation performance targets, extending their service provision arrangements until 2037.

In 2009-2010, the Philippine Water Supply Sector Roadmap and the Philippine Sustainable Sanitation Roadmap was prepared using multi-stakeholder dialogues. In 2011, the National Sewerage and Septage Management Program were approved for implementation.

Since 2011, government has introduced a number of measures designed to resolve the longstanding problems of fragmented and overlapping institutional mandates and a lack of direction in the sector. They include the following:

1. In 2011, the Department of Public Works and Highways (DPWH) was charged to act as lead agency for the water supply and sanitation sector with the aim of improving sector performance. A team was subsequently established with World Bank support to identify an appropriate structure for a lead water and sanitation unit, develop an operational plan for water supply and sanitation and identify targets, investment plans and programs for the sector. The report and recommendations of the team were published in May 2013. Among others, proposals included the

[15] World Bank Water and Sanitation Program – East Asia and the Pacific (2003-06-06). Management Models for Small Towns Water Supply. Lessons learned from case studies in the Philippines.

establishment of a dedicated "lead" Water and Sanitation Unit (proposed within DPWH). As a follow-up action, the government is currently in the process of an institutional review to identify which department and/or agency would be the most suitable for hosting the dedicated "lead water and sanitation unit".

2. A High Level Inter-Agency Committee on Water was created in 2011 to formulate a master plan for water resources management.[16] The plan was submitted to the President in April 2012 and contains key proposals to reconstitute the National Water Resources Board (NWRB) as the National Water Resources Management Office (NWRMO) under the Office of the President, with overall responsibility for water resources management and the economic regulation of water service providers.

These measures, if implemented, should pave the way for improved sector performance by articulating institutional responsibilities for service provision, consolidating regulation functions, and assigning responsibility for the overall planning and management of water supply and sanitation services unambiguously to a single lead agency. Having said this, sanitation and hygiene promotion would remain the responsibility of the Department of Health (DOH) and national (rural) water supply programs such as SALINTUBIG with the Department of Interior and Local Government, and LGUs playing a role in facilitating implementation, while the role of the proposed lead water and sanitation unit would be to ensure the effective coordination of water supply and sanitation planning and progress monitoring.

Milestones in the Philippine water and sanitation sector reform are summarized in Table 3.1.

[16] This committee is led by the Department of Public Works and Highways (DPWH) with the National Economic and Development Authority (NEDA), the Office of the President (OP), the Department of Budget and Management (DBM), the Department of Interior and Local Government (DILG) and other concerned agencies as members.

Table 3.1 Key dates in the reform of the water and sanitation sector in the Philippines

Year	Event
1955	Creation of the National Waterworks and Sewerage Authority (NAWASA).
1971	Republic Act 6234: Transformed NAWASA into the Metropolitan Waterworks and Sewerage System (MWSS) where it was responsible for service provision in Metro Manila, whereas other cities and towns were transferred back to local governments.
1973	Creation of the Local Water Utilities Administration (LWUA) and the Water District (WD) Model through Presidential Decree 198. LWUA was capitalised to provide financial, technical and institutional assistance to urban water service providers.
1974	Creation of the National Water Resources Council attached to the Department of Public Works, Transportation and Communications (later renamed the National Water Resources Board) to coordinate and integrate water resources development activities.
1975	Presidential Decree 856 (the Sanitation Code of the Philippines) provided for the enforcement of various sanitation policies including standards for water supply, sanitary facilities, sewerage and sewage management, food processing and servicing, abattoirs, markets, funeral parlors, and industrial hygiene.
1976	Presidential Decree 1067 (Water Code of the Philippines) on resource regulation and mandated the NWRB as the government agency responsible for the implementation of the Water Code.
1978	Barangay Water Projects. Creation of the DILG Water Supply and Sanitation Project Management Office (DILG WSSPMO).
1980	Creation of the Rural Waterworks Development Corporation (RWDC) responsible for areas where neither LWUA nor MWSS operates.
1987	LWUA took over the work of the RWDC.
1991	Republic Act 7160 (The Local Government Code) provided for the decentralization of basic service provision and barangays, municipalities, cities and provinces were authorized to finance, operate and maintain their own water supply systems.
1995	Republic Act 8041 (National Water Crisis Act) provided the legal framework for the privatization of MWSS.
1997	25-years concession agreements were awarded the by MWSS to Maynilad Water Services, Inc (for the west zone) and to the Manila Water Company Inc (for the East Zone).
2004	Republic Act 9275 (Philippine Clean Water Act) that mandated DPWH to prepare a National Sewerage and Septage Management Program.
2005	Presidential Priority Program on Water (P3W) was approved and implemented by DPWH and NAPC through the adhoc Water and Sanitation Co-ordinating Office.
2009-2010	Multi stakeholder preparation of the Philippine Water Supply Roadmap. 2nd edition in 2010. Multi stakeholder preparation of the Philippine Sustainable Sanitation Roadmap.
2011	INFRACOM approved the National Sewerage and Septage Management Plan.
2011	SALINTUBIG Program (for the 'waterless' municipalities) replaced the P3W; is jointly implemented by the DOH, NAPC, DILG and LWUA.
2011	Executive Order 62. Creation of the Inter-Agency Committee on Water under the leadership of the DPWH.

4. Institutional Framework

Priorty actions for the institutional framework

- Implement new institutional arrangements including an expanded role for the National Water Resources Board as the sector regulator and its transition to a National Water Resources Management Office, and the establishment of a dedicated Water and Sanitation Unit as a lead sector agency (hosting department/agency to be identified through institutional review)
- Improve coordination mechanisms between actors at provincial and municipal levels
- Establish a national capacity building program to address rural subsectors by consolidating various initiatives already in place including the regional capacity building hubs established under the DILG

The Philippine water and sanitation sector has for years been constrained by institutional fragmentation that impedes progress in service delivery and the protection of water resources. Until recently there has been no single agency to oversee the sector, but significant efforts are now underway to address this as outlined in Section 2.

Table 4.1 illustrates the complexity of current institutional arrangements. Urban water supply services are provided by a host of agencies including the Metropolitan Water and Sewerage System (MWSS) in Manila and its two private concessionaires,[17] the Local Water Utilities Administration (LWUA), that provides finance and technical assistance to around 600 water districts.[18] Moreover, there are numerous small private service providers including housing developers and water cooperatives. For a number of large service providers, regulation is done by contract.[19] At present the National Water Resources Board (NWRB) regulates only small private service providers, while LWUA regulates some Water Districts, but only those in which they have a financial interest. There is no agency regulating service provision by LGUs. The lack of a strong, independent regulator has impeded the achievement of universal access to adequate, reliable services and in some cases allowed poor performance to continue unchecked.

While there is no formal clear-cut distinction between the rural and urban subsectors, most rural piped water schemes are operated by local government units with the support of the Department of Interior and Local Government (DILG) through the SALINTUBIG Program for so-called 'waterless' municipalities.[20] The Department of Social Welfare and Development (DSWD) through the KALAHI CIDDS program[21] is a major supporter of rural water supplies usually for point source or communal water systems. The Department of Agrarian Reform also funds

[17] Manila Water Company, Inc and the Maynilad Water Services, Inc.

[18] Water Districts are quasi private water service providers, officially categorized as Government Owned and Controlled Corporations (GOCC). Under Philippine Laws, waterless municipalities are those where less than 50% of their population have access to potable water. GOCCs are stock or non-stock corporations established by a special charter or law for the interest of everyone and subject to the test of economic viability. It is owned or controlled by the government directly, or indirectly through a parent corporation or a subsidiary corporation.

[19] This means that the contractual agreements of the private provider and government agency provide for a regulator specific for their area of operation. Such regulation by contract exists in Metro Manila, Subic, and other LGU-based service contracts.

[20] Waterless municipalities are those where less than 50% of their population have access to potable water.

[21] The KALAHI-CIDDS Program is a major anti-poverty program managed by the DSWD that has sub-project components that include among others, community water supply and sanitation projects. The recent MDGF Study on Investment Requirements report that DSWD plans to invest up to PhP 1.9 Billion a year from 2013 to 2019 for rural water supply projects alone.

some water supply projects as part of the Agrarian Reform Communities. These schemes are usually operated by cooperatives and barangay/rural water and sanitation associations. NWRB is officially mandated to regulate those private utilities and associations/cooperatives, however, their current resources are limited to effectively do so, and likewise small-scale providers lack the capacities to comply with the regulatory requirements.

Oversight for urban sanitation services in Metro Manila rests with the MWSS with service delivered through its concessionaires. Only a few Water Districts and LGUs invest in and operate sewerage systems. The DPWH National Sewerage and Septage Management Program (NSSMP), which was approved in 2011 is still in its infancy, with little planning, investments and no clear accountability at LGU level for sanitation services.

Table 4.1 Roles and responsibilities of agencies involved in water and sanitation

	Current Roles and Responsibilities of Sector Agencies
Local Government Units (LGUs)	• Mandates generally based on the Local Government Code and include resource regulation, water supply provision and economic regulation of utilities. This includes responsibility for the planning, implementation and monitoring of water supply and sanitation programs. • Provision of support to water service providers such as the Rural Water and Sanitation Associations, the Barangay Water and Sanitation Associations and cooperatives including funding from their development funds.
Local Water Utilities Administration (LWUA)	• Capacity building support to water districts, including technical, institutional and financial assistance. • Regulation of Water Districts.
Department of Interior and Local Government (DILG)	• Management of the water grants under SALINTUBIG Program of the government. • Capacity building support to LGUs. – Provision of capacity building training to LGUs. – Coordination of LGU master plan preparation. – Provision of information to LGUs on available sector programs and financing.
National Water Resources Board (NWRB)	• Resource, Economic and Service Regulation of water service providers.
National Economic and Development Authority (NEDA)	• Coordinates the preparation of national development plans and investment programs. • Monitoring implementation of policies, programs and projects.
Department of Public Works and Highways (DPWH)	• Provision of technical support to LGUs upon request including implementation of piped water supply projects. • DPWH is hosting the Project Management Office for the National Sewerage and Septage Management Office. • They also provide oversight functions over LWUA and the MWSS. • Leads the Inter-Agency Committee on Water created under Executive Order 62.
Department of Finance(DOF)/ Government Financing Institutions (GFIs)	• Financing support for the water supply sector. • DOF oversees performance of GFIs like the Development Bank of the Philippines, the Land Bank of the Philippines and the Local Water Utilities Administration.
Metropolitan Waterworks and Sewerage System (MWSS)	• For water supply and sewerage services in Metro Manila through its two private concessionaires. It also has its own economic regulatory office, created by contract to regulate tariff and performance of the utilities.
DWSD	• Implements the KALAHI-CIDDS program, a major anti-poverty program of the national government that have water supply and sanitation sub-projects in rural areas.
NAPC	• Coordinates the pro-poor water supply projects of the national government.

[22] DOH Administrative Order No. 2010-0021 on the subject of Sustainable Sanitation as a National Policy and a National Priority Program of the Department of Health (DOH) states as objectives that by 2022, all barangays will be declared open defecation free, all LGUs will have sanitation plans and budgets and with 100% of the population in all cities/municipalities with sanitary toilets.

The mandates for rural sanitation are not clearly defined, with two agencies having an operational role. The Department of Health (DOH) holds lead responsibility and has adopted a policy objective[22] to achieve open defecation free status for all barangays, and universal access to sanitary toilets in cities and municipalities. This policy has, however, received very little attention so far and little or no funding has been allocated for its implementation. At the same time, the Local Government Code assigns responsibility for rural sanitation to LGUs, though there are no plans, targets or monitoring systems in place against which LGUs can be held accountable. Local private sector providers of sanitation goods and services are neither organized nor regulated.

It is clear from the table that many roles and responsibilities overlap. For instance, while resource regulation is by the NWRB, economic regulation is done by a number of agencies: NWRB, LWUA, MWSS and a number of other smaller regulatory offices created by contract to oversee special zones, for example Subic Bay. LGU water systems, however, are outside the remit of any regulatory agency, which is a major sector concern given that they serve a very large number of users.

Following the designation of DPWH as lead agency for the sector, the team tasked with the development of a new structure and mandate for the "lead water and sanitation unit", and identification of investment plans and programs, proposed responsibilities for this lead sector agency in its 2013 draft report, as listed in Table 4.2 below.[23] It also proposed that the lead water and sanitation unit would be hosted by DPWH. The report also recommended that a national capacity development program should be developed for the sector.

With comprehensive proposals developed, the priority now is for government to adopt and implement the reforms, complemented by a clear capacity development strategy and plan. The government is in the process of an institutional review to provide clarity as to which agency or department would be most suitable to host the proposed lead water and sanitation unit.

Table 4.2 Proposed roles of the lead water and sanitation unit/agency (de vera, 2013)

Monitoring	• Maintaining a centralized database of information on water service providers, service coverage and selected information on performance levels.
Financing	• Lead agency for OBA activities • Implementer of source development programs funded by GOP grants • Allocate government resources for the WSS sector
Planning/Policy/ Programming	• Master planning for the sector • CAPEX programming • Policy formulation (in coordination with other agencies) • Setting and monitoring sector targets • Establishing operational standards • Implementation of the NSSMP
Reform Accountability	• Establishing reward and penalty systems for service providers • Initiating reforms within attached institutions

[23] De Vera et al (2013)

5. Financing and its Implementation

Priority actions for financing

- Create a national account for water and sanitation, disaggregated between urban and rural to enable monitoring of investments towards the subsectors
- Increase investments towards water supply and sanitation, particularly in rural areas where large disparities exist between the rich and the poor
- Align budgeting processes to support the implementation of long-term strategies and investment plans by public service providers and translate these into annual work plans
- Improve local capacity in procurement and other financial management processes to facilitate budget releases.
- Introduce key result areas for local water supply and sanitation services to increase local accountability for service improvements and incentivise LGUs to access additional funding sources including matching grants from government

Total investments contributed by different stakeholders are difficult to track as there is no lead agency collating this information. Some LGUs invest in water enterprises; legislators contribute to water supply projects from the Philippine Development Assistance Fund (more commonly known as pork barrel funds); and further investments are made by the private sector (large, medium and small), water districts, some government-owned and controlled corporations (GOCCs) and a number of NGOs. The establishment of a national account for water and sanitation would enable the monitoring of financial flows for water and sanitation programs, projects and investments.

Annual allocations for the implementation of various government programs are approved under the General Appropriations Act (GAA). Since 2005, this has authorised an annual investment of PhP 1.5 billion (US$36 million) for water supply projects in 'waterless' municipalities under the SALINTUBIG Program.[24] This allocates PhP 5-7 million (US$118,000 – 166,000) to each waterless LGU which then develops proposals for the amount allocated. In other words, short-term plans are made to fit given annual budgets, rather than budgets being allocated to support phased plans to meet town- or district-wide targets. In fact few, if any, cities outside the capital have a comprehensive plan for achieving universal coverage. The capacity to utilize the funds allocated is in any case compromized by the limited capacity of LGUs to meet project requirements relating to technical design and procurement.

The Department of Social Welfare and Development (DWSD) recently disclosed that through the KALAHI-CIDDS program, a total of PhP 1.9 billion (US$44 million) shall be allocated annually from 2013 to 2019 for pro-poor water supply sub-projects. This amount plus the SALINTUBIG Funds brings to PhP 3.4 billion (US$78 million) the total amount available for water supply projects annually, up to 2016.[25] These amounts, though significant, still fall short

[24] For 2012, the Salintubig Program was given a budget of PhP 800 million through the DILG and PhP 700 Million through LWUA. An additional PhP 500 million was also received by the DILG in 2012 to finance a number of water projects under the Transition Investment Support Plan (TISP) for ARMM. For 2013, a total of PhP 1.5 billion Salintubig Fund was allocated through the DILG. These budgets are mostly for water infrastructure with DILG allocating 4-5% of project costs for capacity development.

[25] Salintubig Program Funds is a commitment from 2010 to 2016 only.

of the total annual investments required to meet water supply universal coverage by 2025 by about PhP 18 billion (US$424 million).

Previous attempts to rationalize the sector financing framework were unsuccessful[26] and instead there are a number of government institutions and commercial windows for financing water and sanitation investments by LGUs, water districts and the private sector. These remain under-utilized, however, as LGUs are reluctant to borrow, hoping instead that they can access grant funds from national projects or the 'pork barrel' funds of local legislators. Moreover, LGUs do not generally prioritise water and sanitation in local investment plans as they lack incentives to commit to performance targets during their three-year term of office.

While accurate figures are not available, there is considerably more funding available for water supply than for sanitation and sewerage, with grants, loans and output-based aid on offer for water supply projects. Since 2005, pro-poor water supply grants to waterless municipalities were provided to LGUs and through the water districts either as grants or soft loans[27] with the intention that these would leverage additional resources from LGUs, the private sector and other actors. In addition, a Philippine Water Revolving Fund (PWRF)[28] operated from 2008-2013 to encourage private banks to lend to water projects. A total of PhP 4.3 billion (US$102 million) was allocated to 22 projects, mainly for source development, rehabilitation and network expansion.

Moreover, government banks, such as the Land Bank and the Philippines Development Bank, are actively involved—with support of development partners—in lending to water districts as well as to the Manila concessionaires, and have expressed intention to move into market segments targeting semi-creditworthy water districts and lending for smaller private utilities.

Private water service providers are generally more assiduous than their public counterparts in expanding services in urban areas, partly as a result of their contractual obligations. The two largest private sector operators are expected to invest in expansion and efficiency improvements for both water supply and sewerage.[29] Grants established under output-based aid agreements have also enabled subsidized connection fees to be provided for poor households in Manila.[30] For rural areas, however, finance is more difficult to access and many piped schemes not falling under water districts are subsidised by LGUs.

For sanitation, particularly urban sewerage projects, the National Economic Development Authority Infrastructure Committee (NEDA INFRACOM) authorized a 40% national government subsidy for highly urbanised cities under the National Sewerage and Septage Management Program approved in 2011. To date, however, no projects have been established. Rural sanitation, meanwhile, receives very little funding from government and is generally regarded as a household responsibility, taking its toll on public health.

[26] Executive Order 279 of 2004 and its Implementing Rules and Regulations provided for reforms in the financing policies for the water supply and sewerage sector and water service providers and for the rationalization of LWUA's organizational structure and operations. LWUA Employee's Union filed a case in court where they were granted a Temporary Restraining Order that prevented the implementation of this policy.

[27] LWUA provided soft loans to the water districts operating in waterless municipalities.

[28] The PWRF was set up by the Philippine government, American aid agency USAID and JICA to leverage concessional financing for water projects by bringing in private financial institutions. USAID supported the capacity-building program, while JICA provided a 40-year soft loan to be lent on to individual projects. The fund is administered by the Development Bank of the Philippines.

[29] In 2009, Manila Water managed to get Presidential Approval for contract extension until 2037. Maynilad Water's contract extension was approved in 2010. The longer concession period will allow the concessionaires to implement a higher investment plan while at the same time lowering the scheduled tariff adjustments to ensure customer affordability.

[30] Manila Water is implementing a Global Partnership on Output-Based Aid funded project under the World Bank since 2007.

6. Sector Monitoring and Evaluation

Priority actions for monitoring and evaluation

- Harmonise data collection systems, standardise the definition of terms and develop a coherent sector monitoring framework
- Establish a collective platform for a multi-stakeholder review process to monitor subsector performance (for example Joint Annual Sector Reviews)

Subsector monitoring is a difficult task in the Philippines given the absence (until recently) of a lead agency to coordinate this important function. Currently, each agency monitors its own concerns—for instance, LWUA monitors only the water districts that have outstanding loan obligations with them, while MWSS monitors exclusively the performance of their concessionaires. Furthermore, there is concern about the definition of terms, data collection strategies and approaches to monitoring and evaluation.

There are several sources of population-based coverage data including the National Demographic and Health Survey (NDHS) and the annual poverty indicators survey undertaken by the National Statistics Office. The Department of Health conducts its Field Health Services Information System (FHSIS) survey annually and NEDA regularly collects agency level information that it collates and integrates in national plans and reports. An added complication in tracking progress in the sector is that these surveys do not apply the same criteria for classifying facilities, and determining their adequacy as those used by the UNICEF-WHO Joint Monitoring Programme. For example, government coverage figures do not specify whether water supplies are safe to drink, pressure in the pipes is adequate or 24-hour supply is available.

The harmonization of definitions and adoption of appropriate criteria for assessing the adequacy of hardware and services is needed in order for reliable monitoring data that is useful in planning and tracking progress in the sector to be produced. Pilot projects are currently underway to establish performance benchmarking systems for LGUs and for a few water service providers; these need to be scaled up if they are be useful for broader sector monitoring.

The absence of a central regulatory agency contributes to the lack of information on sector performance. There is no national asset registry system in place and while there is a water permit process under the National Water Resources Board, there is no obligation for those operators without a Certificate of Public Convenience (CPC) to register any new system that is being built.

[31] Compared to the JMP list, no distinction is made in the NSO's census on whether dug wells or springs are protected or not making them fall in the list of unimproved sources of water. Rain collection is also not in the NSO list. For sanitation, ventilated improved pit latrine and composting toilets are not in the NSO list considering that these types of toilets are not common in the Philippines. Water-sealed toilets with other depository in the NSO list would be similar to the flush or pour-flush to elsewhere category in the JMP list. However, the NDHS and APIS surveys also conducted by NSO use the JMP categories. The FHSIS reports do not have the different categories of sources of water and sanitary toilets in their reporting.

[32] Licensed operators hold a Certificate of Public Convenience (CPC) and are registered service providers regulated by the National Water Resources Board. Water permits are only for resource extraction.

Much of the available data on urban water supply and sanitation relate to Metro Manila where the private sector concessionaires submit regular reports to MWSS. Outside of Metro Manila, water districts generally report to LWUA, while for non-water districts, regulated CPC holders of the NWRB are only required to report every five years.

Responsibility for monitoring rural water supply and sanitation coverage rests with provincial and municipal LGUs. The DILG has started to collect this information, but mostly for the waterless municipalities under their SALINTUBIG Program.

A proposal to set up an inter-agency, multi-stakeholder platform for sector monitoring was strongly supported in the SDA stakeholder consultation workshops. The approval of the proposed National Water Resources Management Office provides for the creation of one national, and several local level, multi-stakeholder platforms for monitoring progress and for knowledge, information sharing and collaboration.

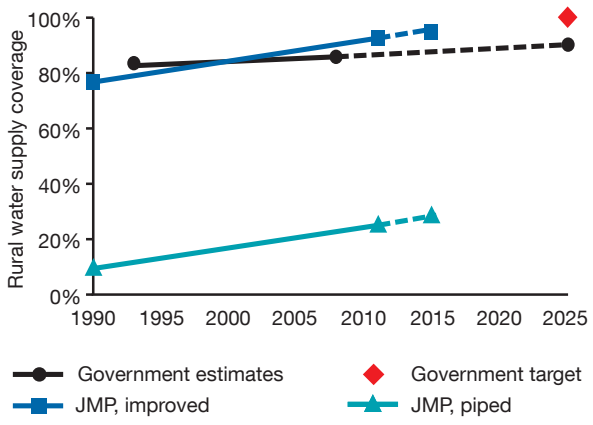
7. Subsector: Rural Water Supply

Priority actions for rural water supply

- Establish a dedicated rural water supply section within the "lead water and sanitation unit" to spearhead subsector strategy development, monitoring and coordination
- Increase funding to expand access to piped services in rural areas and operationalise policies for full cost recovery to reduce the investment gap and improve sustainability of services
- Enable economies of scale and financial viability in service provision by consolidating small service providers and/or providing access to finance for system expansion
- Formalize the management of small piped schemes and introduce light-handed regulation including the use performance contracts to drive service quality and reliability and incentivize service provision to the poor
- Enhance rural water supply improvements (piped schemes) via other poverty alleviation programs such as the Bottom-Up Budgeting Process and the National Community Development Driven programme
- Expand the provision of technical support to small providers, combined with business planning services to facilitate access to finance for system expansion
- Develop systems for management support to schemes operated by community-based organisations, through partnerships with private sector and water districts

Government uses data from the National Demographic and Health Survey (NDHS) to report on water supply. This indicates that about 86% of the rural population (40 million people) had access to improved water supply facilities in 2008.[33] The dominant facilities were tubewells or boreholes (30%) and piped water into dwelling or yard (22%). While access rates are high relative to rural areas in other countries, there has been sluggish annual growth over the last two decades (just 0.2% between 1993 and 2008) although the level of service has improved somewhat, with slow but steady growth in access to piped supplies (see Figure 7.1).

Figure 7.1 Rural Water Supply Coverage



Source: JMP (2013); SDA costing

[33] This includes households that use bottled water for drinking but have access to improved sources for washing and cooking.

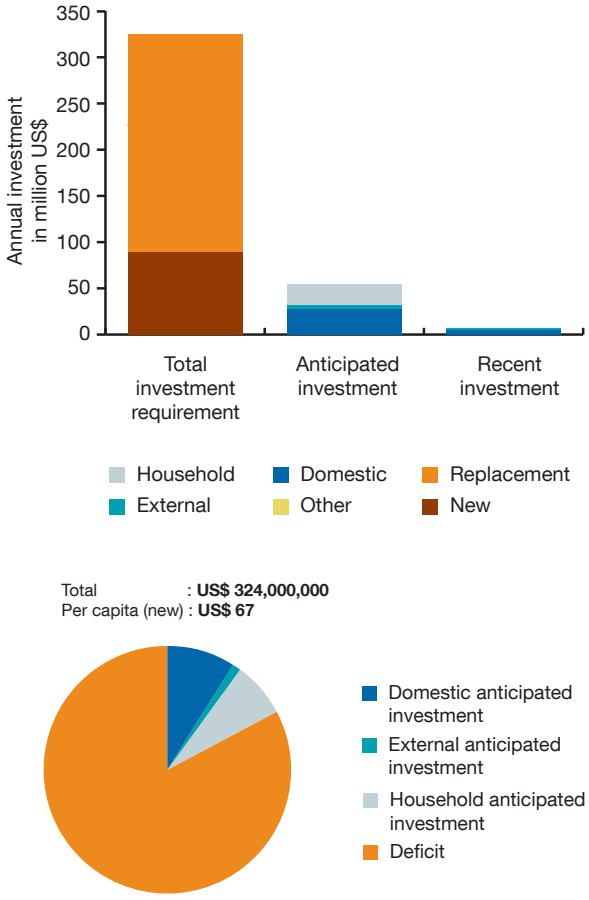
JMP estimates, using multiple country survey data-sets, illustrate an annual increase in access to improved water supply of 0.8% between 1990 and 2011, when the level reached 92%. With an assumed population growth rate of 1.2% per year, the target of universal access implies that an estimated 1.3 million people per year will need to gain access to improved water supply facilities between 2009 and 2025. This is about 70% higher than the roughly 0.8 million people per year who gained access to improved water supply facilities between 1993 and 2008.[34]

Meeting the 2025 water supply target in rural areas is estimated to require US$ 324 million per year capital expenditures between 2009 and 2025 (Figure 7.2). Combined with the US$ 62 million per year in expenditures for operations and maintenance (see Section 2), this implies total financing requirements of US$ 386 million per year. These estimates are rather conservative because these are focused on hardware expenditures and ignore software costs incurred in delivering services (project management and transport) and capacity building.

Anticipated investments (i.e. measured as the annual average for 2012-2014) in rural water supply are likely to be substantially below the level required. Estimated to be about US$ 55 million per year (Figure 7.2), more than 90% of the anticipated investments are expected to come from households (US$ 23 million per year) and other domestic stakeholders (US$ 29 million per year), most of which are represented by the SALINTUBIG program of the DILG.

Recent investments or average annual expenditures for 2009-2011, which exclude the contribution of households, were also way below the required CAPEX for the subsector. Having said this, LGU investments are not recorded systematically hence the exact financial flows to the sub-sector are unclear.

Figure 7.2 Rural Water Investment Requirements (2009-2025)



Source: SDA costing

While LGUs have a key role in the provision of rural water supply services, successive studies have found LGU-operated systems to have the worst performance of all utilities benchmarked. There are no clear performance targets or incentives for LGUs and accountability for service

[34] The estimates are based on NDHS access rates.

provision remains diffuse. Underlying these constraints is the reality that water provision by LGUs is politically driven and there is no emphasis on professionalizing service delivery or achieving financial sustainability. Given the current weaknesses in the rural water supply service delivery, a dedicated section focusing on rural water supply will need to be established within the proposed lead water and sanitation unit. Its role should include strategic leadership; the co-ordination of national and local investment streams; target setting and monitoring; and fostering sustainable service provision through support systems, including strategies for resilience in the face of climate change impacts.

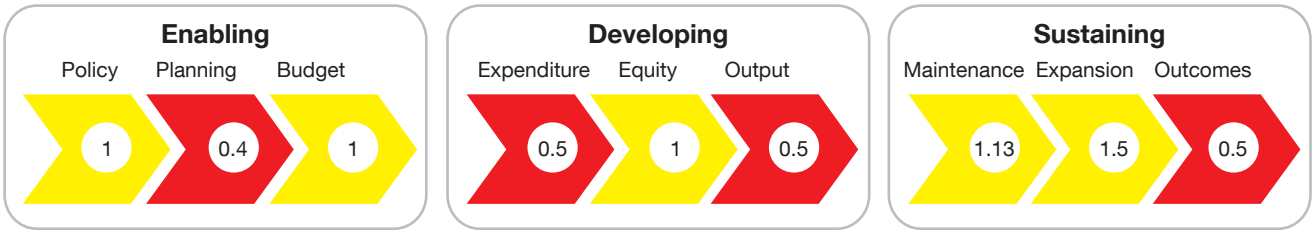
Figure 7.3 shows the result of the scorecard benchmarking process. The questions, scoring criteria and evidence are included in Annex 1.

The country generally scored low in four main areas: planning, expenditure, output and use outcomes. Within the enabling pillar, it was noted that there is no nationally approved policy for rural water supply. The lack of leadership and fragmentation of implementing agencies leads to inconsistent service delivery principles, for example on counterpart financing, and irrational and overlapping grant schemes. There is no overall investment strategy or plan to reach universal coverage in rural water supply, neither is there an annual process that reviews progress in the sub-sector.

Scores in the developing services pillar reflect the fact that data on subsector expenditure are fragmented, service providers are poorly monitored and details of new facilities developed each year are not properly recorded, making it very difficult to monitor progress towards national or local targets. Programs such as SALINTUBIG, and the national CDD program do support LGUs with low levels of access and high poverty rates, however, no regular review is done to see if these strategies are actually reducing inequalities in water supply access. In terms of equity of services in rural areas, the richest rural quintile is 1.7 times more likely to have access to improved water as the poorest quintile. However for piped house connection, the richest quintile has 17 times higher access than lowest quintile.

Turning to sustainability, the score on outcomes is low. Many schemes do not operate on a full cost recovery basis, capacities for management, operation and maintenance are limited and systems tend to fall into disrepair unless LGUs, particularly at barangay level, provide additional funds. Many rural operators do not have regulatory licenses and, being outside of the formal framework, receive little support through capacity building and performance regulation. There is no centralised or decentralised asset register or inventory system, detailing where water scheme points are located, their condition and functionality.

Figure 7.3 Rural Water Supply Scorecard



Strategies are needed to improve the quality and sustainability of service delivery and facilitate greater access to piped schemes by the poor. One element in achieving this would be to encourage water service providers to develop operations large enough to achieve economies of scale, though the consolidation of small providers and/or by enabling access to finance for system expansion via tariffs, borrowing or public grants.

At national level, another important initiative would be to formalize the management of smaller schemes such as those under LGU control and bring them within the remit of the sector regulator. It is encouraging that plans for this are already underway, with regulatory requirements differentiated according to the level of service offered. Performance contracts could be a vehicle for regulation, helping to drive service quality and reliability and incentivising service provision to the poor.

8. Subsector: Urban Water Supply

Priority actions for urban water supply

- Establish a comprehensive regulatory framework covering all types of service providers, including local government-run schemes, water districts plus private and independent operators, both large and small, and consolidate these roles gradually within a national regulator
- Develop a financing policy and strategy, linked with a graduation policy for utilities based on the creditworthiness, in order to attract commercial finance, and accelerate access to concessional finance to support the expansion of services
- Develop capacity of local government to contract, manage and oversee private sector participation modalities, in order to leverage private sector investment, use professional capabilities of the private sector and encourage the consolidation of small-scale service providers
- Introduce multi-stakeholder, performance-based planning and monitoring including a system of annual subsector reviews
- Build capacity and increase the accountability of LGUs for improving the quality and sustainability of service provision, using performance benchmarks and an incentive and/or penalty system

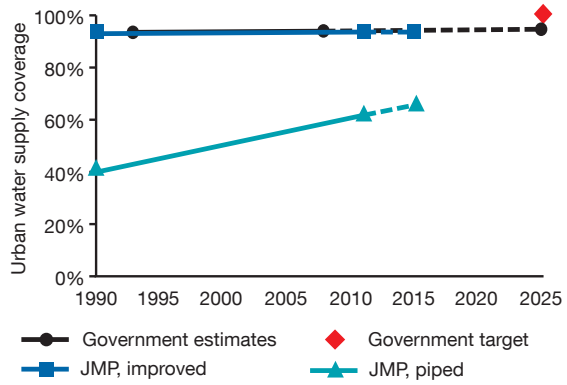
Information from the NDHS indicates that about 94% of the urban population (41 million people) had access to improved water supply facilities in the Philippines in 2008.[35] About 38% of the population used piped water into the dwelling or yard as their drinking water source while 14% had a tube well or borehole. Reported access rates for these facilities are in fact conservative since one third of respondents reported bottled water as their drinking source but also had access to improved water sources for washing and cooking.

Access to piped water supplies has risen substantially from 40% of the urban population in 1990 to 61% by 2011 (Figure 8.1). However, the proportion of the population with access to improved water supply, which was already quite high, changed very little over this period; with around 0.8 million people per year gaining access to improved sources, the level of access barely kept pace with population growth. The rate will need to almost double to about 1.4 million people per year between 2009 and 2025 if the country is to achieve the target of universal access to improved water supply.

An estimated capital expenditure of US$514 million per year is required for the country to meet its targets by 2025 (Figure 8.2). This implies a financing requirement of US$662 million per year if the US$148 million per year in operations and maintenance expenditures (see Section 2) are considered in the analysis. As with rural water supply, the estimated financing requirements are conservative because software costs are ignored in the analysis.

[35] This includes households that use bottled water for drinking but have access to improved sources for washing and cooking.

Figure 8.1 Urban Water Supply Coverage

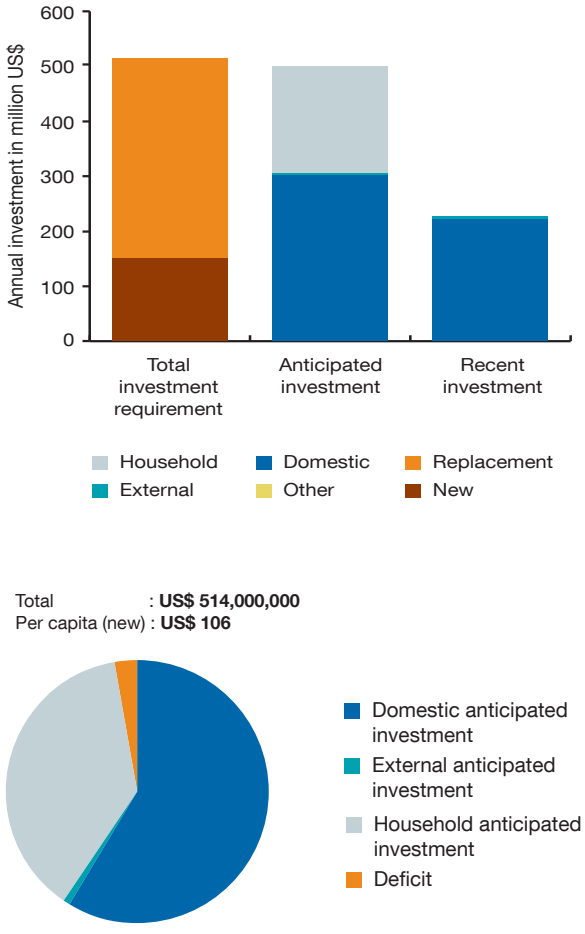


Source: JMP (2013); SDA costing

Anticipated investments in urban water supply are likely to be slightly smaller than required capital expenditure. Estimated at about US$500 million per year (Figure 8.2), most of the anticipated investments are expected to come from households (US$194 million per year) and other domestic stakeholders (US$302 million per year). Furthermore, the bulk of the investment will be in Metro Manila and nearby urban areas: nearly US$288 million (95%) of the US$302 million per year that is contributed by (other) domestic stakeholders are from the projected expenditures of Manila Water and Maynilad.[36] This suggests that the surplus is confined only to Metro Manila and nearby regions. Urban areas farther away from Metro Manila are likely to have deficits which may not be too different in terms of scale form the rural regions.

Figure 8.3 illustrates the urban water supply scorecard (see detailed questions in Annex 1). Among the four subsectors, urban water supply has the most developed service delivery pathway, due largely to the focus of national government and private sector on Metro Manila and other larger cities. Since some scorecard questions relate only to the three largest cities and utilities, the scorecard tends to reflect the situation in these growth centers, which is not reflective of water provision in other urbanised areas. This discrepancy between Metro Manila and other urban areas could also be observed in the financial model, where the picture looks fairly positive while investment deficits remain in other urban centers.

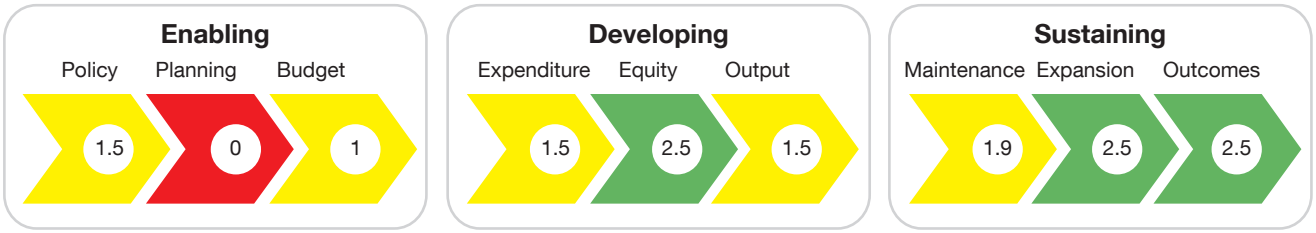
Figure 8.2 Urban Water Investments Requirements



Source: SDA costing

[36] Also note that part of the remaining amount is expected to be allocated to Metro Manila as well.

Figure 8.3 Urban Water Supply Scorecard



For the subsector as a whole, there are some important gaps in the current institutional framework, not the least of which is that there is no lead agency tasked with coordination, planning and policy development, nor any platform for sector-wide, multi-stakeholder assessment of subsector performance. Furthermore, it is impossible to clearly identify investments and subsidies for urban water supply in the relevant budgets.

The Philippine Water Supply Sector Roadmap was produced through a multi-stakeholder consultative process and is the key policy document for the subsector, though it does not disaggregate between urban and rural areas. While not officially approved by the cabinet-level NEDA Infrastructure Committee, its Sub-Committee on Water Resources has used the outcome of the consultative process as a reference point for new sector policies and strategies, including those in the Philippine Development Plan 2010-2016 that has been approved and is currently undergoing mid-term updating.

There is a need for sector policy to make separate provisions for urban and rural services since these different contexts have significant implications both technically (use of bulk water schemes and clustered connections rather than household connections, for instance) and in institutional terms (for example, the need for formal service provision rather than management by informal user groups).

There are various funding sources that can be tapped for urban water supply development. However, there is general concern that while loan funds are available, the average utilisation rate has been less than 50% over the past three years. Many LGUs or service providers (such as water districts and small private operators) do not have the capacity to prepare successful loan proposals, have little appetite to borrow and in general have a low capacity to absorb large investments, which are subject to bureaucratic public disbursement procedures. Similarly, many LGUs lack the capacity respond to the increasing number of proposals received from large private sector operators interested in taking over water district services.

Regulation is better developed in urban water supply compared to the other subsectors and licensed water service providers are legally required to submit independent audited annual reports and balance sheets.[37] In the three largest cities (Metro Manila, Davao City and Cebu City), service providers keep good records of new asset development and this is reported to the regulators. However, economic regulation remains fragmented with MWSS regulating the concessionaires by contract, LWUA regulating water districts and NWRB regulating other licensed service providers. Economic regulation also requires regulated entities to conduct public hearings for tariff approval. Until now, only about 44% of the urban population is served by providers under economic regulation; many private

[37] Securities Regulation Code Rule 68 requires all juridical entities to file standard Philippine Financial Reports.

or association-like service providers continue to operate unregistered and unregulated. The NWRB is planning to carry out a nationwide inventory to gradually register and license all service providers, introducing a light-handed regulatory regime for those multiple small-scale service providers.[38]

It is estimated that only 36% of the urban population is served by either a water district or regulated private sector provider and only the three largest cities have specific plans to extend services to the unserved poor, for example via bulk service provision, socialised rates or payment of connection fee by instalment. Here, current rules on economic regulation indicate that an average water bill should not exceed 5% of the income of the lowest quintile group. Furthermore, there is socialised pricing[39] built in the progressive block tariff structure. Other innovative schemes to serve the poor are largely project-based but could potentially be replicated and scaled up.

In terms of system functionality and maintenance, the three largest utilities report non-revenue water (NRW) to be in the range of 20 to 40%.[40] All regulated utilities implement cost recovery tariffs which enable them to have an average operating ratio of about 1.2. The tariffs are subject to review every five years or when adjustments are required, and this practice is generally adhered to. Most water districts perform fairly well, while LGU-run and non-ring fenced utilities have the worst performance. It is likely, therefore, that LGU subsidies are flowing to unsustainable services. For all water supply services, climate change impacts present a threat to sustainability, calling for the adoption of strategies to enhance resilience.

All regulated utilities prepare business plans that include measures to expand access and are allowed to take commercial loans to offset current investment needs against future revenues. However, while the major utilities are able to do this, many small providers would be unable to do so because their operations are not commercially viable.

Regarding equity, NDHS 2008 data indicate that urban access to improved water is 91% for the lowest quintile and 100% for the richest. However, access to a house connection is three times higher for the richest quintile (98%) than for the poorest quintile (32%).

[38] The Water and Sanitation Program of the World Bank is supporting this NWRB project.

[39] The Maynilad scheme for instance offers poor households a special bulk meter rate (called AVERES or average residential rate) limited to 10 cu.m. per month per household.

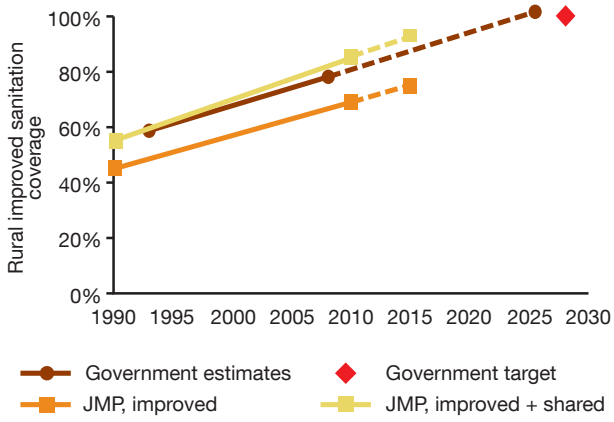
[40] Average non-revenue water of the three largest utilities: Manila Water Company, Inc (2011): 13%, Maynilad Water Services Inc (2013), 38% and Davao City Water District (2012), 25%.

9. Subsector: Rural Sanitation and Hygiene

Priority actions for rural sanitation and hygiene

- Operationalise and fund the Zero Open Defecation Program, within the framework of an equitable rural sanitation and hygiene promotion policy, a capacity building plan, an implementation plan and a monitoring system
- Develop a financing strategy for the programme that includes public investments to generate household demand for sanitation, output-based subsidies to the very poor and collective incentives for barangays and LGUs in achieving Zero Open Defecation
- Strengthen rural sanitation promotion via other poverty alleviation programmes, such as the Bottom-Up Budgeting Process, the National Community Development Driven Programme and the National Cash Transfer Programme (4Ps)

Figure 9.1 Rural Sanitation Coverage



Source: JMP (2012); SDA costing

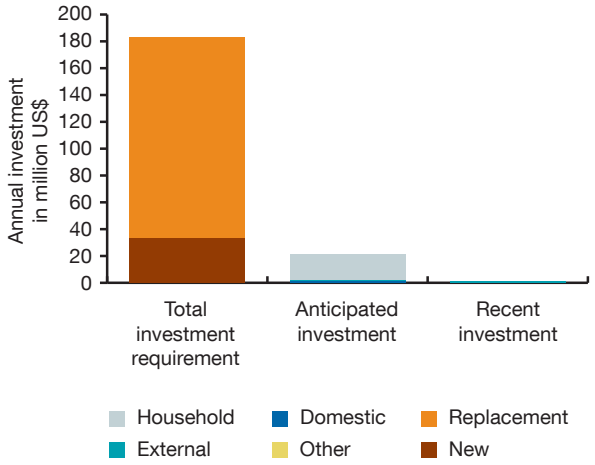
Based on information from the NDHS, about 79% of the rural population (37 million people) had access to improved sanitation facilities in the Philippines in 2008.[41] The dominant facilities were pour-flush toilets to septic tank (53%) and wet pits (16%). About 15% of the rural population was reported as not having access to a facility and therefore assumed to practice open defecation. Rural sanitation improvements are also monitored through the regular census on access to sanitary toilet facilities. These reports, however, are not disaggregated between urban and rural areas and there is no systematic annual multi-stakeholder review process that formulates pro-poor policy and implementation recommendations.

Starting from a fairly low base, access to improved sanitation facilities has considerably increased in the past decades (Figure 9.1). Data from the NDHS (government estimates) suggest a 1.3 percentage point annual increase in access rates (including shared access) between 1993 (59%) and 2008 (79%). On the other hand, JMP estimates imply annual increases of 1.2 percentage points between 1990 (45%) and 2011 (69%). With an assumed population growth rate of 1.2% per year, the target of universal access requires an estimated 1.2 million people per year to gain access to improved sanitation facilities between 2009 and 2028.

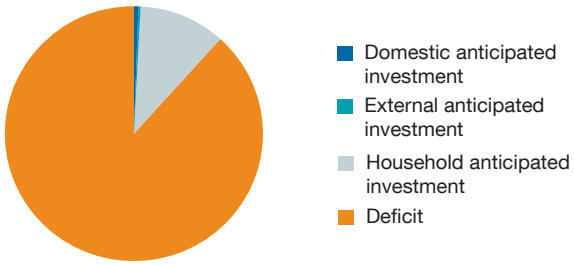
[41] This includes households that have access to shared facilities.

Although this is only a little more than the roughly 1.1 million people per year that gained access to improved facilities between 1993 and 2008, the task will be more challenging as it is the hard-to-reach and poor households that are not using improved sanitation facilities.[42] NDHS data indicate that the richest quintile is 3.4 times as likely to have access to an improved sanitation facility (93%) as compared to the lowest quintile (27%), while open defecation in the richest quintile is zero and 46% for the lowest quintile.

Figure 9.2 Rural Sanitation Investment Requirements



Total : **US$ 182,000,000**
Per capita (new) : **US$ 28**



Source: SDA costing

Meeting the 2028 sanitation target for rural areas is estimated to require about US$182 million per year in capital expenditures (Figure 9.3). Combined with the US$32 million per year in expenditures for operations and maintenance (see Section 2), this implies a total financing requirement of US$214 million/year. As with rural water supply, the estimated financing requirements are conservative because these only include hardware costs and exclude software costs. Such software costs could be significant because there is a need to invest in demand generation among households and capacity building among all stakeholders.

Anticipated investments in rural sanitation are insignificant compared to required CAPEX. Estimated to be about US$21 million per year (Figure 11), most of the anticipated investments are expected to come from households (US$20 million per year) and (other) domestic stakeholders (US$1 million per year).

In 2010, the Department of Health formally announced the adoption of a policy and national priority program for sanitation commonly known as the 'Zero Open Defecation' programme.[43] This is yet to be funded, however, while the ongoing SALINTUBIG program focuses only on water supply investments. LGU and barangay budgets for sanitation are not known but based on anecdotal evidence are generally restricted to 'some bowls and bags of cement' and there are no financing targets or coordination mechanisms for domestic and donor expenditures. Furthermore, the only initiatives underway to expand the role of the domestic private sector in promoting and supplying accessible, affordable and aspirational facilities are small projects run by external agencies.

Most of the progress in recent years has been achieved by households investing in toilets under their own initiative, without external support or encouragement, as masons, sanitary hardware and building materials are readily available

[42] The estimates were based on NDHS access rates.

[43] Department of Health Administrative Order No. 2010-0021 declaring Sustainable Sanitation as a National Policy and a National Priority Program of the Department of Health. This policy defined the objectives of achieving universal access to safe and adequate sanitary facilities by 2028 and that all barangays shall be declared Open Defecation Free by 2022.

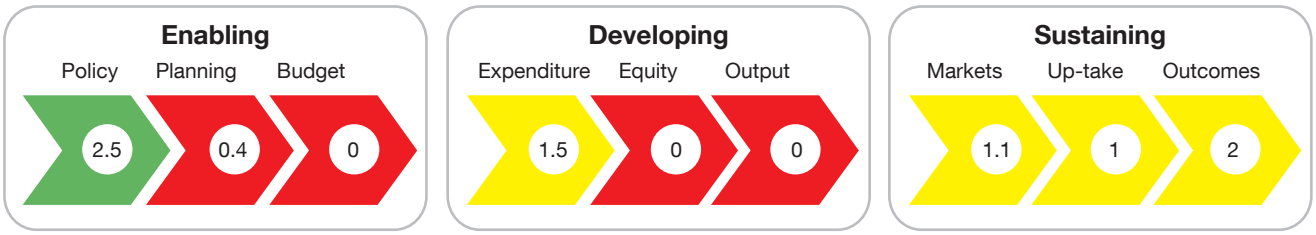
in most of the country. Affordability is a constraint for poor households, however, and there are other purchasing barriers such as price perceptions and the lack of low-cost products that can be purchased through 'one-stop shop' arrangements.

Implementation of the Zero Open Defecation programme should be expedited, plus there are other rural development and poverty reduction programmes that could also incorporate sanitation and hygiene promotion into their operations, such as the Community–Driven Development Programme and the national Cash Transfer scheme (4Ps) that could help target effective messages to poor households, combined with support for sanitation mobilised through the Bottom-Up Budgeting Process of LGUs. There may also be scope for developing a substantive sanitation and hygiene promotion component within SALINTUBIG. Ground work on sanitation marketing by external support agencies also has the potential for scaling up, but this can only happen with government support at national and local levels.

LGUs have a pivotal role to play in promoting and sustaining rural sanitation and hygiene but their capacity, interest and commitment need to be strengthened. LGU accountability systems, key results indicators and/or other incentives should be introduced to motivate both the political leadership and LGU operational staff to reach sanitation targets, securing additional resources where necessary from local development funds or the bottom up budgeting and planning (BUBP) funding route. Coordination between DILG and DOH will be paramount, with LGUs in the implementing and local policy making role, and DOH with a focus on national policy, implementation guidance and technical assistance for the roll our Zero Open Defecation Programme, empowering the DILG-hosted regional hubs for capacity building of implementers.

The rural sanitation scorecard (Figure 9.3) shows clear blockages for service delivery that need to be addressed across the enabling, developing and sustaining pillars.

Figure 9.3. Rural Sanitation Scorecard

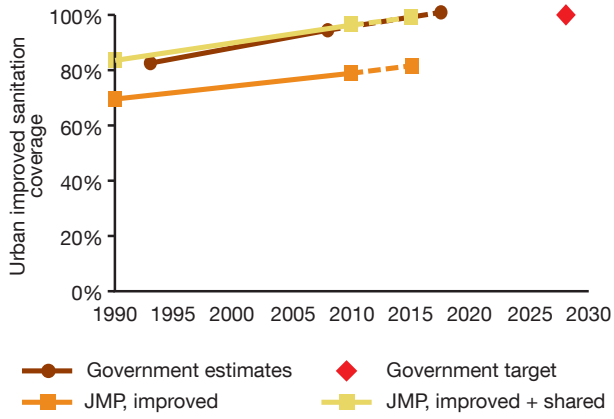


10. Subsector: Urban Sanitation and Hygiene

Priority actions for urban sanitation and hygiene

- Establish institutional arrangements to facilitate implementation of the National Sewerage and Septage Management Program (NSSMP) and increase local government and water district accountability on the coverage and quality of urban sanitation services
- Develop a sanitation investment framework and mandate local governments to adopt city sanitation plans incorporating measures to improve cost recovery and extend affordable services to the poor
- Adopt a cost-effective approach to investment whereby the gradual expansion of sewerage is complemented by measures to maximize connections and to improve fecal sludge management, since most households will continue using septic tanks for the foreseeable future
- Build local capacity to enable successful planning and implementation of the NSSMP

Figure 10.1. Urban Sanitation Coverage



Source: JMP (2012); SDA costing

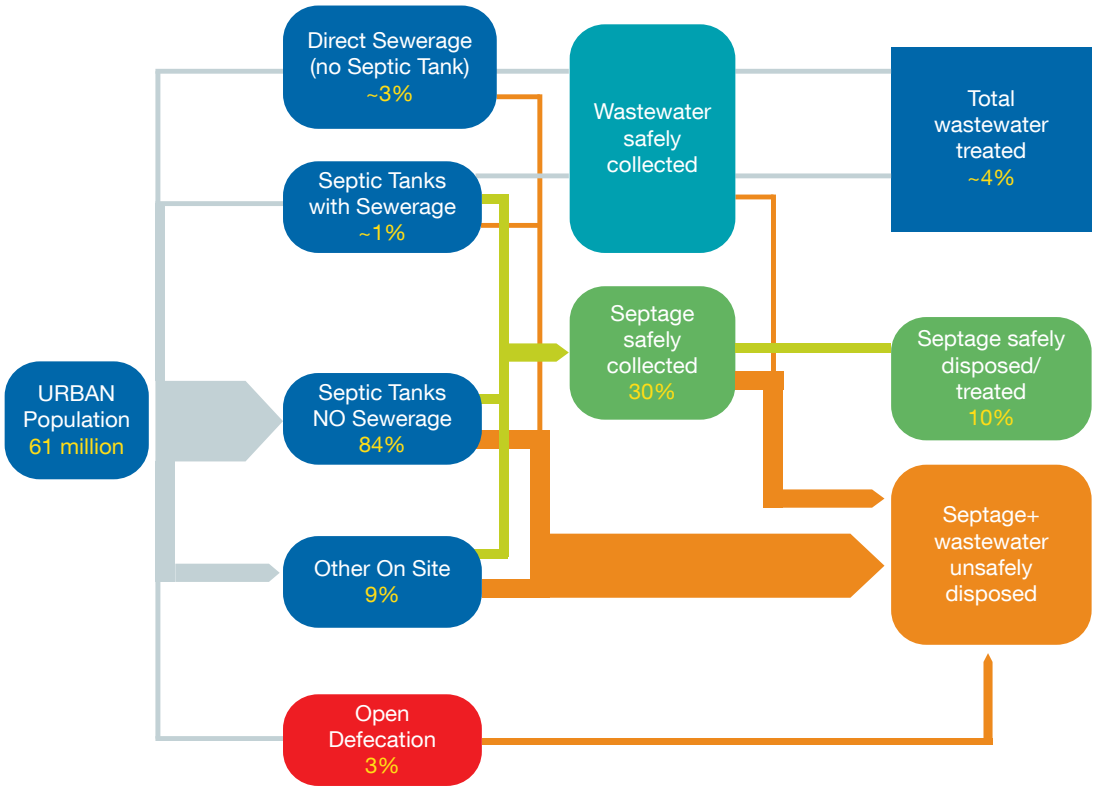
Information from the NDHS indicates that about 94% of the urban population (41 million people) had access to improved sanitation facilities in 2008.[44] About 84% of the urban population had access to pour-flush toilets to septic tanks. However, access to treated sewers was, and remains, low (3.5%). Nearly 4% of the urban population continues to practice open defecation. JMP (2013) estimates access to improved sanitation at 79%, excluding shared facilities.

Access rates in urban areas have risen noticeably in recent decades (see Figure 10.1), with an annual increase of about 0.5% per year. In absolute numbers, NDHS estimates imply that about one million people per year gained access to improved facilities between 1993 and 2008. With rapid urbanization, this must almost double to about 11.8 million people per year up to 2028 if the country is to achieve its universal access target.

While access rates are high, a major challenge for the sector is the low level of safe collection and treatment of wastewater, currently estimated at just 4%; and of septage, estimated at 10% (see Figure 10.2).

[44] This includes shared facilities.

Figure 10.2. Wastewater and Septage Flow



The urban sanitation landscape of the Philippines presents two very different pictures, one for Metro Manila and the other for the remainder of the country. In Metro Manila, the two concessionaires are accelerating investments and targeting universal access to sewerage by 2037, the end of the concession period. This is being achieved through a cost-effective approach that maintains the use of combined systems and septic tanks in much of the city, and includes a septage management component. Outside of Metro Manila, apart from the Baguio City and a few other locations (Boracay, Clark, Subic), there are no sewerage systems in any of the urban centers. In most cities, the primary service providers are unregulated desludging contractors and there are only a few formal septage management services operated by either local government units (LGUs) or water districts.[45]

There is very limited information on current sanitation expenditure in the Philippines. Information available from 2001-2007 indicates that only about 3% of the total water supply and sanitation budget was spent on sanitation, and this represented only about 0.03% of the GDP.

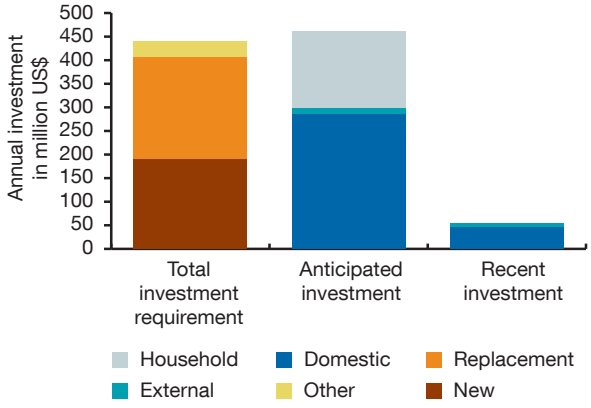
[45] World Bank and AusAid (2013)

An estimated US$437 million per year in capital expenditure is required for the country to meet its targets by 2028 (Figure 10.3). This implies a financing requirement of US$537 million per year if the US$100 million per year in operations and maintenance expenditures (see Section 2) are considered in the analysis. As with rural sanitation, the estimated financing requirements are conservative because software costs are ignored in the analysis.

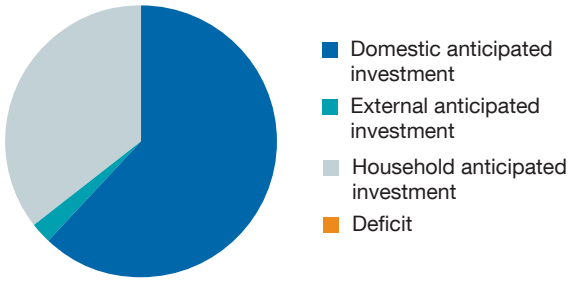
Anticipated investments are estimated to be higher than required CAPEX by about US$21 million per year. Calculated to be about US$458 million per year (Figure 10.3), the anticipated investments are expected to come from households (US$163 million per year) and (other) domestic stakeholders (US$284 million per year) and external sources (US$11 million per year). However, this result should be interpreted with care. Firstly, there is no assurance that households are going to spend US$163 million per year. Hence, the estimated surplus in the sector could easily become a deficit. Secondly, as with urban water supply, the investments are heavily skewed towards Metro Manila and nearby urban areas as 93% of the US$284 million per year that is contributed by other domestic stakeholders is based on projected expenditures by the concessionaires Manila Water and Maynilad Water. As with urban water supply, this suggests that the surplus (or excess of anticipated over required CAPEX) may be confined to Metro Manila and nearby urban areas. The story is likely to be the opposite for urban areas that are farther away from Metro Manila.

Efforts are now being made to improve sanitation in urban centers outside of Metro Manila via the National Sewerage and Septage Management Program (NSSMP)[46] developed by DPWH as a consequence of the Clean Water Act 2004. Formally adopted in 2011, the program focuses on 17 highly urbanised centers and includes targets such as those that declare that by 2020, 60 LGUs have local sanitation plans; 76 sewerage or septage management systems are built and locally managed; and almost 10 million people have access to improved sanitation. Of these, just over 2 million will have new sewer connections. PhP 13.4 billion (US$317 million) has been allocated to the programme so far, but plans are a work in progress as the DPWH is still promoting the programme and soliciting LGU interest (counterpart investment) to participate. While the national government has agreed to provide counterpart commitments, concrete projects have not yet materialised.

Figure 10.3. Urban Sanitation Investment Requirements



Total : **US$ 437,000,000**
Per capita (new) : **US$ 103**



Source: SDA costing

[46] The NSSMP provides for the following six intervention areas: a) Septage management (collection, treatment and reuse of biosolids); b) Sewerage systems (interceptors, piped sewerage and centralized treatment plants); c) Ecological sanitation (dry sanitation or urine diversion dry toilet [UDDT], arbor loo, excreta reuse); d) Toilets (public toilets, programs to reduce open defecation); e) Systems for point sources (factories, markets, high rise buildings, schools, slaughterhouses); and f) Systems for non-point sources (open bottom septic tanks, backyard hog farms).

A further obstacle to the implementation of the NSSMP is that governance arrangements for urban sanitation are fragmented and under-developed at all levels. The subsector is not regulated except (by contract) in Metro Manila and there is no clear approach for managing sanitation systems at the local government level. Against this backdrop the ongoing establishment of a lead agency/ unit for the sector and a single regulator (NWRMO) are positive steps that should enable improved subsector performance. These initiatives are, however, in their early stages and much remain to be done, for example an NSSMP office has recently been established in the DPWH but is not yet fully operational.

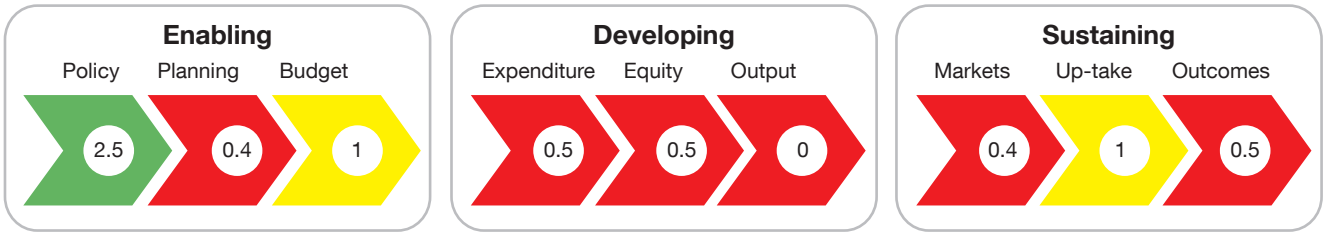
The amalgamation of small water and sanitation service providers to create stronger and more efficient organizations is also under consideration, including the introduction of performance contracts to incentivize progress in service coverage and quality.

Whether urban sanitation services should be managed separately from water supply is a subject of much debate in the sector, the potential for cost recovery being a major consideration. The World Bank East Asia Sanitation review found that sewerage systems are best managed in conjunction with water supply under a single operator.

No detailed assessment has been made of human resource capacity needs in the subsector, nevertheless it is evident that water districts and local governments do not have the skills to professionally plan, implement and manage sewerage systems, though some are managing septage management programmes. A recent World Bank review[47] on the status of urban sanitation in the Philippines noted that most of the available sanitation experts resides either within the Metro Manila concessionaires or elsewhere in the private sector. Only one quarter of registered sanitary engineers are currently practising, reflecting the low level of activity in the subsector.

The urban sanitation scorecard (Figure 10.4) reflects many of the findings outlined above, highlighting weaknesses in planning under the enabling pillar and for all sub-components under the developing and sustaining pillars.

Figure 10.4 Urban Sanitation Scorecard



[47] World Bank (2013)

11. Conclusion

In order to reach national targets of universal access to water supply by 2025 and sanitation by 2028, an average of US$803 million per year will need to be spent on water supply and US$619 million per year on sanitation, plus US$210 million per year to finance the operation and maintenance of current and future water supply infrastructure and US$132 million per year for sanitation. Anticipated public capital expenditure is estimated at US$338 million per year for water supply and US$298 for sanitation. Combined, these account for about 0.3% of the 2012 GDP. Domestic funding sources are expected to provide a very large share (97%) of anticipated public expenditures, with the majority (95%) of anticipated public capital expenditure targeted at urban areas.

The national targets will only be met if there is strong political will to mobilize the investments required, streamline sector leadership, resolve institutional fragmentation, develop capacity at all levels and enhance regulation in order to create incentives for expanding and improving service provision, particularly to the poor. The sustainability of new and improved services is also threatened by climate change, calling for strategies to enhance resilience. The scorecard results highlight these and other bottlenecks to progress that need to be resolved by action at national and local levels.

In addition to specific subsectoral actions recommended in the previous sections, reflecting the bottlenecks as indicated in the overview scorecard (Figure 11.1), the following sector wide priority actions are recommended to resolve the challenges highlighted by this Service Delivery Assessment:

- Implement new institutional arrangements including an expanded role for the National Water Resources Board as the sector regulator and its transition to a National Water Resources Management Office, and the establishment of a dedicated Water and Sanitation Unit as a lead sector agency (hosting department/agency to be identified through institutional review).

- Improve coordination mechanisms between actors at provincial and municipal levels.

- Establish a national capacity building programme, especially to address rural subsectors, by consolidating various initiatives already in place including the regional capacity building hubs established under the DILG.

- Harmonise data collection systems, standardise the definition of terms and develop a coherent sector monitoring framework.

- Establish a collective platform for a multi-stakeholder review process to monitor subsector performance (for example Joint Annual Sector Reviews).

- Increase sector investment, particularly in rural areas where large disparities exist between the rich and the poor, as well as funding for “software”, specifically for rural sanitation programs.

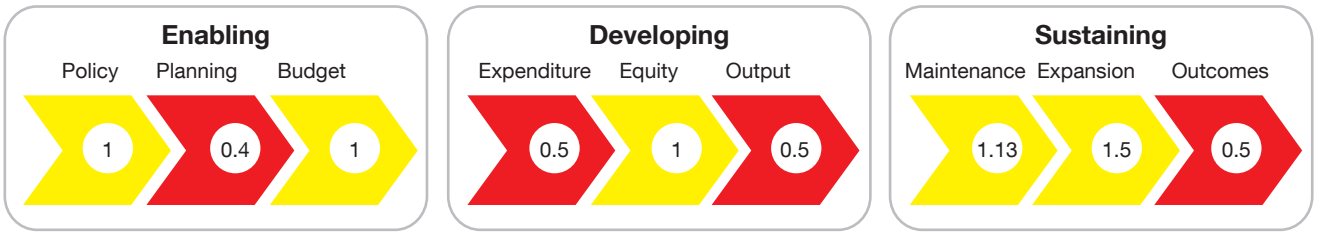
- Align budgeting to support the implementation of long-term strategies and investment plans by public service providers, and translate these into annual work plans and budgets.

- Introduce key result areas for local water supply and sanitation services to increase local accountability for service improvements and incentivize LGUs to access additional funding sources including matching grants from national government and private sector sources.

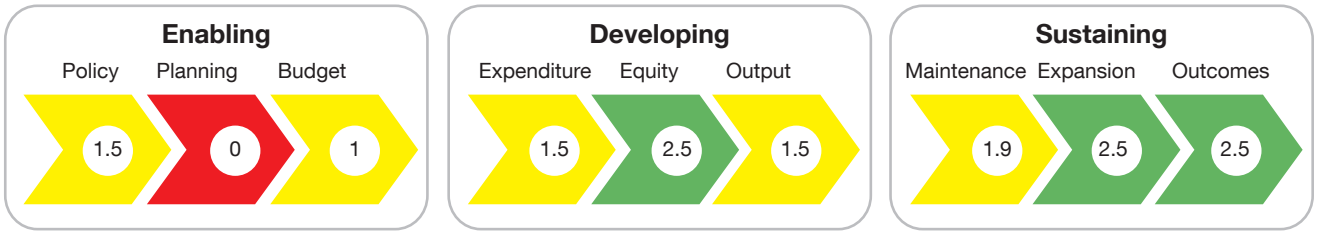
- Create a national account for water and sanitation, disaggregated between urban and rural to enable better monitoring of financial flows towards the subsectors.

Figure 11.1 Summary of Scorecard Result

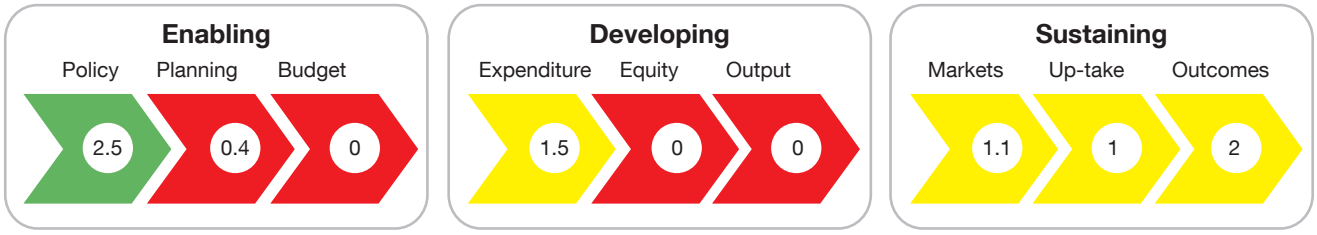
RURAL WATER SUPPLY



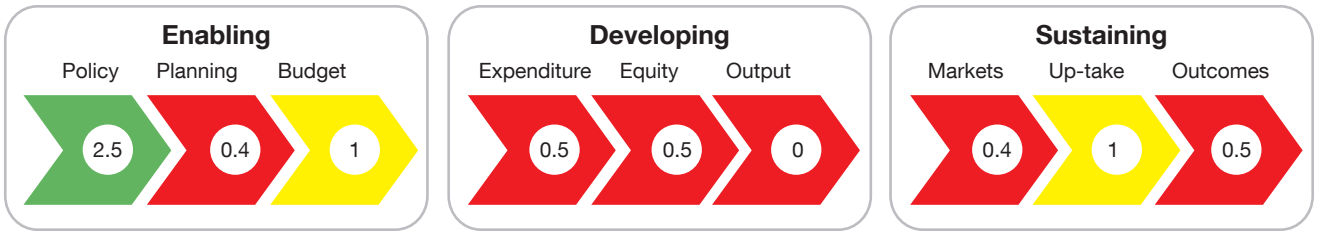
URBAN WATER SUPPLY



RURAL SANITATION



URBAN SANITATION



Annex

Annex 1: Scorecard and Explanation

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
ENABLING RURAL WATER SUPPLY						
RWS 1	Sector targets	Are there RWS access targets in the national level development plan?	0.5	There might be targets in the development plan but this could be very general; i.e. nothing specific for rural. The scoring reflects this situation.	• There is an existing national target but not standardized and not disaggregated	Philippine Development Plan, MDG Progress Reports, the PWSSR and the PSSR, the NSSMP and the NOH
RWS 2	Sector policy	Is there a rural water policy that is agreed by stakeholders, approved by government, and is publically available?	0	If there is a draft policy and this has been agreed by stakeholders but not yet approved this will be scored as 0.5 Achieving a score of 1 requires that the policy/strategy/ order/act has been consulted on with stakeholders, is officially endorsed by the government and that is public and therefore all sector actors have unrestricted access.	• No national policy, with no specific policy for rural water supply • Guidelines endorsed but not approved, therefore not made publicly available for all	The water code and the sanitation code do not specify policies on rural water supply.
RWS 2	Sector policy	Is there a rural water policy that is agreed by stakeholders, approved by government, and is publically available?	0	If there is a draft policy and this has been agreed by stakeholders but not yet approved this will be scored as 0.5 Achieving a score of 1 requires that the policy/strategy/ order/act has been consulted on with stakeholders, is officially endorsed by the government and that is public and therefore all sector actors have unrestricted access.	• No national policy, with no specific policy for rural water supply • Guidelines endorsed but not approved, therefore not made publicly available for all	The water code and the sanitation code do not specify policies on rural water supply.
RWS 2	Sector policy	Is there a rural water policy that is agreed by stakeholders, approved by government, and is publically available?	0	If there is a draft policy and this has been agreed by stakeholders but not yet approved this will be scored as 0.5 Achieving a score of 1 requires that the policy/strategy/ order/act has been consulted on with stakeholders, is officially endorsed by the government and that is public and therefore all sector actors have unrestricted access.	• No national policy, with no specific policy for rural water supply • Guidelines endorsed but not approved, therefore not made publicly available for all	The water code and the sanitation code do not specify policies on rural water supply.
RWS 3	Institutional Roles		0	Score 0.5 even if there is no single policy/ strategy/ order/act but the roles must be set out in recognized official policy guidance and must be distinct and consistent. Score 1 if the roles are distinct and consistent and that these are operationalized.	• There is a need for a 'superbody' to monitor the subsector, lack of leadership leads to unstable and inconsistent policies no specific agency in charge for rural water supply	National Water Resources Management Framework Plan 2011 Stakeholder workshop assessments

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RWS 4	Fund flow co-ordination	Does government have a process for co-ordinating multiple investments in the subsector (domestic or donor, eg. National grants, state budgets, donor loans and grants etc.)?	0	The co-ordination process refers to the level of government being assessed. Capital fund flows include intergovernmental WSS funding from fiscal transfers between all levels of government, special purpose grants, flagship programs, own sources of revenue at national/state level, official donor assistance, infrastructure funds and borrowing from capital markets. The process should be codified in some way e.g. as terms of reference of a working group and there should be evidence that there are regular meetings to co-ordinate the multiple fund flows. In donor dependent countries this may be known as a sectorwide approach (SWAp) in other countries as an infrastructure or WSS co-ordinating committee.	• Only national investments are being monitored by the National Economic and Development Authority. This is an incomplete picture as this excludes the investments of all local governments, private sector and others.	NEDA reports and Stakeholder Assessments.
RWS 5	Investment plan	Is there a medium term investment plan for rural water based on national targets that is costed, prioritizes investment needs, is published and used?	0	Score 1 if the sector investment plan is used to channel funding according to the criteria set out in the plan, and/or is used for annual budgeting. Score 0.5 if such a plan exists but is not used, or if a plan exists but lacks some of the key quality features, or a needs assessment has been carried out and the plan is under preparation. Score 0 if the plan is not existing.	• There is no medium-term investment plan for the subsector, only budget-based and project-based plans	Stakeholder workshop assessments

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RWS 6	Annual review	Is there a annual multi-stakeholder review in place to monitor subsector performance, to review progress and set corrective actions?	0	There should be a regular (at least annual) multi-stakeholder assessment of subsector performance that reviews the corrective actions committed to in the previous year and that sets new corrective actions for the year. These reviews should be government-led but involve sector stakeholders. Note these are sub-sector reviews and not individual project/program reviews. Score 0.5 if annual performance reviews are either not multi-stakeholder or do not set corrective actions. Score 1 if the review is multi-stakeholder, it looks back at the previous corrective actions and sets new corrective actions.	• No collective platform for data collection and monitoring – no reports published, therefore nothing to review	Stakeholder workshop assessments
RWS 7	HR Capacity	Has an assessment been undertaken of the human resource needs in the sub sector to meet the subsector target and is the action plan being implemented?	0.5	Score 0.5 if the assessment is done but no follow up actions are taken. Score 1 if the assessment is done and actions are being taken to address skill shortages and capacity issues. Note - in a situation where ad hoc activities to develop human resources are taking place, however no assessment has been taken, this score would be 0.	• Capacity assessed only within the priority municipalities of the Millenium Development Goal Fund 36 municipalities.	Department of Interior and Local Government Capacity Building Hubs Plans and Reports.
RWS 8	Adequacy	Are the public financial commitments to the rural water subsector sufficient to meet the national targets for the subsector?	0	Score 1 where public commitments are over 75% of that required to reach the targets. Score 0.5 if between 50% and 75% of the public finance requirements for new and replacement infrastructure have been committed over the next 3 years.	• There is no sufficient financial commitment to fund the sector to meet national targets. Targets are budget-based and not target-based.	General Appropriation Act, SALINTUBIG reports, KALAHI CIDDS reports Costing Tool analysis
RWS 9	Structure	Does the budget structure permit the investments and subsidies (operational costs, administration, debt service, etc) for the rural water sector to be clearly identified?	0.5	Score 1 requires that there is a budget line for investment, and where they exist an additional budget line for subsidies. Where subsidies do not exist, a score of 1 can be achieved just by having a budget line for investment. Score 0.5 where there is a budget line for investment but not for subsidies where they exist.	• Existing budget structure allows only for investment but not for subsidies	General Appropriations Act 2012

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RWS 10	Comprehensive	Does the government budget comprehensively cover domestic and official donor investment/ subsidy to rural water?	0.5	Achieving a score of 1 requires that the budget captures over 75% of the flows in the subsector. A score of 0.5 is given where the budget is deemed to capture between 50% and 75% of these flows.	• The budget is deemed to capture between 50-75% of funds of national funds. Unable to trck local government investment and subsidies	The National Economic and Development Authority reports on official developmet aid,, Public investment fund reports
DEVELOPING RURAL WATER SUPPLIES						
RWS 11	Utilization of domestic funds	What percentage of domestic funds budgeted for rural water are spent (3 year average)?	0	Score 0.5 for utilization between 50% and 75%. Score 1 if utilization is above 75% .Where there is simply no data on which to make the analysis - score as 0/red.	• Budget and disbursements are not regularly published; • limited information on actual expenditure and accomplishments.	SALINTUBIG Reports; Stakheholder Asessment Review
RWS 12	Utilization of external funds	What percentage of external funds budgeted for rural water are spent (3 year average)?	0	The indicator requires taking and average utilization rate over the past 3 years and should be combined for both domestic and donor flows. The reasons for >25% differences between utilization rates from domestic and donor sources should be explained in the report narrative. A score of 0.5 is given for utilization between 50% and 75%. Achieving a score of 1 requires that utilization is above 75%.	There is limited investment for rural water supply from external funds. The DSWD's Kalahi CIDDS project and the Department of Agrarian Reform's water projects are the onl projects are probably the only rural water supply projects that are externally funded.	Based on expert judgement of stakeholders.
RWS 13	Reporting	Is rural water expenditure versus budget audited and reported on in a consolidated format for all sources of domestic and official donor expenditure?	0	Score 1 where there is consolidated expenditure reporting for both domestic and donor sources. Score 0.5 where expenditure on all domestic flows is reported on. This includes expenditure from own revenue sources, block grants, special purpose grants etc.	• There is a need to improve the quality of reports (if available) for the subsector - reports are submitted only because it is required - no consolidated format - need for a mechanism to confirm/ verify data	Stakeholder assessment review.

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RWS 14	Local participation	Are there clearly defined procedures for informing, consulting with and supporting local participation in planning, budgeting and implementing for rural water developments?	0.5	Score 1 where the procedures are both codified and consistently applied across the majority (>50%) of all subsector developments. Score 0.5 where these procedures are codified. The source should be given in the report.	• Existing procedures are not yet fully developed and needs to be more synchronized and improved to foster more active participation from stakeholders	The manual on the preparation of the Municipal Water and Sanitation Plans and the process for the Bottom Up Budgeting and Planning Approach provides for local participation.
RWS 15	Budget allocation criteria	Have criteria (or a formula) been determined to allocate rural water funding equitably to rural communities and is it being applied consistently?	0.5	Achieving a score of 1 requires that the criteria are codified and consistently implemented year-on-year. A score of 0.5 is given where there are codified criteria, but not consistently applied in budget allocation.	• The SALINUBIG best practices on budget allocation criteria can be replicated to improve accountability and transparency to reduce duplicattion of services • More active participation of the LGUs should be advocated as they may be in the better position to monitor the different government interventions/projects coming in their area	SALINTUBIG Manual of Operation Stakeholder Assessment Workshop reports that criteria is not consistently applied.
RWS 16	Reducing inequality	Is there periodic analysis to assess whether allocation criteria and local participation procedures set by government have been adhered to and are reducing disparities in access?	0	The allocation criteria and local participation procedures need to be evaluated to find out if they are reducing disparities in access. Is there periodic analysis (minimum once in 3 years) by government e.g. the national/state auditor general, or other agency that analyses the impact of these equity principles and are these published so that legislators and civil society can discuss them with government. The aim should be that this analysis is acted on and leads to improved equity principles. Score 1 where there is evidence that these published assessments or evaluations are acted upon by government leading to improved equity principles being applied to the subsector. Score 0.5 if this analysis is carried out periodically and published for the sector or subsector	• There is no periodic analysis done, published and discussed to improve equity principles • The SALINTUBIG and Kalahi CiDDs review periodically but are not published for sector review.	Stakeholder Assessment Workshop

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RWS 17	Quantity	Is the annual number of new systems built (and systems replaced) sufficient to meet sector targets? (including output by government directly as well as through contractors and NGOs)	0	Achieving a score of 1 requires that the total number of systems being built/replaced is over 75% of that required to meet subsector targets. A score of 0.5 is given where total number of systems being built/replaced meets 50% of the required level of output.	• • No data and no clear subsector targets	
RWS 18	Quality of water	Are there drinking water quality standards for rural water and are all new installations tested?	0.5	Score 0.5 where there is codification of water quality standards for the subsector in a published policy/ strategy/ orders/acts. Score 1 where there is documentary evidence that these published water quality standards are applied in over 75% of new installations.	• • There are existing standards but there is no documentary evidence that these standards are applied in over 75% of new installations. - Water quality testing depends on available budget	Philippine National Drinking Water Quality Standards
RWS 19	Reporting	Is the number of new schemes and their locations reported in a consolidated format each year?	0	A zero score on this area of evidence is an indication that RWS16 results are unreliable. Score 0.5 where there is documentary evidence (physical/output reporting) that over 75% of schemes built by all actors in the sector are reported to the lead agency. Score 1 if those physical reports include a listing of all locations in which those schemes have been built	• There is a need for a policy to require submission of data for consolidation • There is a need for a specific agency to be in charge of consolidation of data	Stakeholder workshop assessment
RWS 20	Functionality	Are there regular asset register updates of rural water infrastructure including their functional status?	0.5	Score 0.5 if an asset register exists. Score 1 if the asset register is updated periodically (at least every 3 years) and that it includes a record of functionality.	• There is no national asset registry, per agency only - thus the need for a central co-ordinating body to collect data • No standard format and terminologies	Stakeholder assessment workshop
RWS 21	Cost recovery	Is there a national policy on O&M costs and are O&M costs known and covered from subsidies and/or user fees?	0	Score 0.5 where there is an O&M policy, costs are estimated and over 50% are covered. An estimation would be based on e.g. a % of capital value. Score 1 requires if there is an O&M policy, costs are known and over 75% are covered. An assessment would be based on actual cost data.	• There is no national scheme and no co-ordinating body - per agency/project-based only and is not consistent as there is no national policy.	Stakeholder assessment workshop.

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RWS 22	Spare parts chain	Is there a system defined for spare parts supply chain that is effective in all places?	0.5	Score 0.5 where there is a system of spare parts supply codified in policy/strategy/orders/ acts but spare parts are only available to up to half of rural communities. Score 1 where the system of spare parts supply is codified and spare parts are available to over 50% of communities.	• There is no national system, spare parts acquisition is done individually/per agency	Stakeholder Workshop Assessment.
RWS 23	Management of Disaster Risk and Climate Change	Do rural service providers have plans for coping with natural disasters and climate change?	0.5	Score 0.5 where some service providers have developed a climate action plan or most have undertaken vulnerability assessments. Score 1 where the majority of rural service providers have a plan to reduce or prepare for climate and disaster impacts.	• Some agencies have disaster management plan and/or climate change adaptation plan, but does not include vulnerability assessments. • There is a need to confirm which agencies have what plans and to improve co-ordination between agencies.	Business Continuity Plans of a few rural service providers.
RWS 24	Investment support	Are piped systems in rural areas recognized as management entities and given technical and financial support to expand their systems either by government or larger utilities?	0.5	Score 0.5 where service providers of piped water systems are recognized as legal entities. Score 1 if they are recognized as legal entities and they are given technical support.	• Not all piped systems are recognized legally under any of the registration agencies. but those recognized are supported for expansion	Stakeholder Assessment Workshop
RWS 25	Plans	Are there scheme-level plans for the expansion of piped systems in rural areas?	0.5	Score 0.5 where there are documented plans for between 25% - 75% of rural areas with piped water schemes. Score 1 if over 75% of rural areas with piped water supplies have documented plans.	• There are less than 75% of rural areas with documented plans for expansion.	Stakeholder Assessment Workshop
RWS 26	Investment finance	Are expansion costs for rural water being covered by user fees and/or public grants?	0.5	Score 0.5 where between 25% and 75% of rural areas are able to access funding either from tariffs, borrowing or public grants. Score 1 where over 75% of rural areas are able to access funding either from tariffs, borrowing or public grants.	• Tariffs are usually for operation and maintenance, and are not enough that local government tend to subsidize operation but not expansion costs. • The SALINTUBIG project provides for the public grants only in focus priority municipalities.	Stakeholder Assessments Workshop Results SALINTUBIG Manual of Operations

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RWS 27	Sub-sector progress	Is the sub-sector on track to meet the stated target?	0	This indicator is a check on whether subsector outcome targets will be met. Note the evidence for this question will be provided by the costing tool (including population projections). Score 0.5 where the nation is at least keeping pace with population growth. Score 1 if the trajectory in outcome reporting is within 90% of the subsector target.	• Sector is way below its targets of achieving universal coverage by 2025. It is not investing enough. Costing tool indicates an expected large deficit.	Costing tool
RWS 28	Equity of use	What is the ratio of improved drinking water access between the lowest and highest quintile in rural areas?	0	A score of 1 indicates equity between rich and poor in service provision. Score 0.5 if the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is between 2 and 5 for the subsector. Score 1 if the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is less than 2 for the subsector.	Based on the 2008 National Demographic Survey, for Household Connections, Ratio is 17.25. For other improved, the ratio is 1.69	EAPRO Equity Tree, based on data on JMP 2012
RWS 29	Quality of user experience	Of the households using an improved drinking water source, what proportion are using piped drinking water in the dwelling and yard/plot ?	0.5	'Based on JMP data for the country, this indicator is a proxy for the time taken and the ease of water collection. The indicator looks at the rural population using an improved water source and calculates the proportion of these people using a piped water into dwelling and piped water into yard/plot. Score 0.5 if this proportion is greater than 25% Score 1 if this proportion is greater than 50%'	Piped water connection in rural areas is 25%.	JMP 2 013 data

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
ENABLING: URBAN WATER SUPPLY						
UWS1	Sector targets	Are there subsector targets in the national level development plan?	0.5	The target must be stated for the urban water supply subsector in percent (%) of population who have access to improved services.	MDG targets, MTPDP targets are all national in scope, general and not specific for urban.	Philippine Water Supply Sector Roadmap (PWSSR) and the Philippine Development Plan (PDP)
UWS 2	Sector policy	Is there an urban water policy that is agreed by stakeholders, approved by government, and publicly available?	0.5	Score 0.5 if there is a draft policy and this has been agreed by stakeholders but not yet approved. Score 1 if the policy/strategy/order/act has been consulted on with stakeholders, is officially endorsed by the government and that is public and therefore all sector actors have unrestricted access.	The Philippine Water Supply Sector Roadmap (PWSSR), although not yet formally approved, was incorporated into the Philippine Development Plan (PDP) which has been approved. Presidential Decree 198 also defines the concept of water districts and urban water service provision.	Philippine Water Supply Sector Roadmap (PWSSR) Philippine Development Plan (PDP) Presidential Decree 198
UWS 3	Institutional Roles	Are the institutional roles of urban water subsector players (national/ state & local government, service provider, regulator etc) clearly defined and operationalized?	0.5	Score 0.5 even if there is no single policy/ strategy/order/act but the roles must be set out in recognized official policy guidance and must be distinct and consistent. Some roles may be set out in the Constitution while the role of a regulator is for example often set out is separate legislation to that of other sector institutions. Score 1 if the roles are distinct and consistent and these are operationalized.	Institutional roles are clearly defined in different laws. However, some roles overlap. There is no lead agency for co-ordination, planning and policy development.	PDP National Water Resource Management Study PD 198 for LWUA and WDs, Local Government Code, Public Service Law,
UWS 4	Fund flow co-ordination		0	Score 1 if there is a co-ordination process and operationalized. Score 0.5 if there is co-ordination process but not operationalized. Score 0 if there is no process defined.	The process for co-ordinating major investments for water supply for donors and national grants exist , but not excludes co-ordination local domestic fund sources such as from LGUs, congressional funds, NGOs and private investments specific for urban water supply.	Stakeholder Assessment Workshop

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
UWS 5	Investment plan		0	Score 1 if the sector investment plan is used to channel funding according to the criteria set out in the plan, and/or is used for annual budgeting. Score 0.5 if such a plan exists but is not used, or if a plan exists but lacks some of the key quality features, or a needs assessment has been carried out and the plan is under preparation. Score 0 if the plan is not existing.	There is no specific investment plan for urban water supply.	Public Investment Plans, Annual Investment Plans for LGUs
UWS 6	Annual review	Is there an annual multi-stakeholder review in place to monitor subsector performance, to review progress and set corrective actions?	0	Score 1 if the review is multi-stakeholder, that it looks back at the previous corrective actions and sets new corrective actions. Score 0.5 if annual performance reviews held are either not multi-stakeholder or do not set corrective actions.	There is a portfolio review, but this is limited to compliance with donor agency terms. There is no specific multi-stakeholder assessment of urban water supply performance.	Stakeholder Assessment Workshop
UWS 7	HR Capacity	Has an assessment been undertaken of the human resource needs in the sub sector to meet the subsector target and is the action plan being implemented?	0	Score 0.5 if the assessment is done but no follow up actions are taken. Score 1 if the assessment is done and actions are being taken to address skill shortages and capacity issues. Note - in a situation where ad hoc activities to develop human resources are taking place, however no assessment has been taken, this score would be 0.	There are some adhoc activities on HR needs (i.e. study on capacity assessment of national government agencies involved in the SALINTUBIG Program). There is no study specific for the subsector and a corresponding action plan.	Stakeholder Assessment Workshop
UWS 8	Adequacy	Are the public financial commitments to the urban water subsector sufficient to meet the national targets for the subsector?	0.5	Score 1 where public commitments are over 75% of that required to reach the targets. Score 0.5 if between 50% and 75% of the public finance requirements for new and replacement infrastructure have been committed over the next 3 years.	Based on Costing tool analysis, the anticipated public investments for urban water supply is between 50-75% of the financial requirements.	General Appropriation Act Public Investment Plans (PIP) Costing tool analysis

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
UWS 9	Structure	Does the budget structure permit investments and subsidies (operational costs, administration, debt service, etc) for the urban water sector to be clearly identified?	0.5	Score 1 requires if there is a budget line for investment and where they exist an additional budget line for subsidies. Where subsidies do not exist a score of 1 can be achieved just by having a budget line for investment. Score 0.5 where there is a budget line for investment but not for subsidies where they exist.	There is a budget line for investment but not for subsidies where they exist. But investments and subsidies for urban water supply cannot be clearly identified.	General Appropriations Act 2012
UWS 10	Comprehensive	Does the government budget comprehensively cover domestic and official donor investment/ subsidy to urban water?	0	Score 1 if the budget captures over 75% of the flows in the subsector. Score 0.5 where the budget is deemed to capture between 50% and 75% of these flows.	There is no data specific to urban water supply..	General Appropriations Act 2012, Official Development Aid reports, PIP reports
DEVELOPING SERVICES: URBAN WATER SUPPLY						
UWS 11	Utilization of domestic funds	What percentage of domestic funds budgeted for urban water are spent (3 year average)?	0.5	The subsector domestic budget outturn or percentage of external budget expended/ utilized is an indicator that can identify critical bottlenecks in both public finance disbursement mechanisms and of absorption capacity of the relevant institutions. The indicator requires taking an average utilization rate over the past 3 years. Score 0.5 where utilization is between 50% and 75%. Score 1 requires that utilization is above 75%.	2013 GAA requires implementation of projects by admin, appropriation valid for 1 year only; no continuing appropriation Bottlenecks in fund disbursement are mainly around compliance to program requirements (i.e. memorandum of Agreements, Feasibility Studies, Detailed Engineering Designs and Procurement procedures)	Department of Budget Management rules and Procedures; NWRB (annual reports of regulated utilities, SALINTUBIG PROGRAM REPORTS)
UWS 12	Utilization of external funds	What percentage of external funds budgeted for urban water are spent (3 year average)?	0	The indicator requires taking an average utilization rate over the past 3 years. External funds include multi-lateral and bilateral donor funds, but only NGO funds if substantial. Score 0.5 for utilization between 50% and 75%. Score 1 requires that utilization is above 75%.	External funds: KFW assistance (to expire in 2013); low utilization (<50%) due to issues during preparatory stage. The USAID-JBIC funded Philippine Water Revolving Fund had reported low utilization rates due to bottlenecks in implementation.	Stakeholder Assessment Workshop

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
UWS 13	Reporting	Do urban utilities (national or 3 largest utilities) have audited accounts and balance sheet?	1	Score 1 if urban utilities have their annual accounts professionally and independently audited.	The National Water Resources Board requires audited annual reports from regulated water utilities; Water Districts and LGUs are all audited by the Commission on Audit.	NWRB policy
UWS 14	Local participation	Are there clearly defined procedures for informing, consulting with and supporting local participation in planning, budgeting and implementing for urban water developments?	1	Score 1 if the procedures are both codified and consistently applied across the majority (>50%) of all subsector developments. Score 0.5 where these procedures are codified. The source should be given in the report.	Planning and budgeting stages done by LGUs, WDs and NWRB-regulated utilities and hold public hearings for tariff approval. Coops hold general assemblies for planning, budgeting and implementing water development.	NWRB Policy
UWS 15	Budget allocation criteria	Have criteria (or a formula) been determined to allocate urban water funding equitably to urban utilities or service providers and among municipalities and is it being consistently applied?	0.5	Criteria or a formula to match the funding allocated to a subsector with need will improve the efficiency and effectiveness of subsector spend by reducing duplication and developing services for those people who already have them. These criteria or formulae should be codified in policy/strategy/orders/acts. Score 1 where the criteria are codified and consistently implemented year-on-year. Score 0.5 where there are codified criteria, but not consistently applied in budget allocation.	For DILG there is a budget allocation criteria for water, but not segregated to urban and rural water. For LWUA, whose WDs serve urban areas, they also have a criteria.	DILG AND LWUA SALINTUBIG guidelines
UWS 16	Reducing inequality	Have urban utilities or service providers (national or in 3 largest cities) developed and implemented specific plans for serving the urban poor?	1	Score 1 where there is documentary evidence that these plans to serve the unserved poor are being implemented. If the assessment is of the 3 largest cities at least 2 cities must be able to show that plans to serve the poor are being implemented. Score 0.5 where pro-poor service delivery development plans have been developed. If the assessment is of the 3 largest cities at least 2 cities must have plans to serve the poor.	Water tariff considers affordability of tariff of urban poor (water bill up to 5% of urban poor income). There is socialized pricing in the tariff structure. Other schemes are Installment payment of new connection fee, OBA for new connections	Reports of Concessionaires in Metro Manila, National Water Resources Board Guidelines for Tariff structuring

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
UWS 17	Quantity	Is the annual expansion of HH connections and stand posts in urban areas sufficient to meet the subsector targets?	0.5	This indicator is a check whether the annual expansion of new connections (household and standposts) being built each year is in line with the targets set for the subsector. The indicator assumes sufficient treatment capacity is available for new connections. Score 1 where the total number of new connections being built/ replaced is over 75% of that required to meet subsector targets. Score 0.5 where total number of new connections being built/replaced meets 50% of the require level of output.	Target is not always reached. For LGU-run utilities this is because of unavailable water supply source, capacity to manage the water system. These limitations also apply to small utilities, in addition to difficulty in accessing financing for additional connections.	Annual reports of large urban water service providers.
UWS 18	Quality of water	Are there drinking water quality standards for urban water that are regularly monitored and the results published?	1	Score 1 if there is routine and regular surveillance of most urban water supplies, with public dissemination of the results of testing. Score 0.5 where water supply standards exist and monitoring of most improved urban water supplies occurs.	Compliance to Philippine National Standards for Drinking Water (PNSDW) is used by urban water supply providers.	Reports of the Local Drinking Water Quality Monitoring Committees in major urban centers.
UWS 19	Reporting	Is the number of additional household connections made and stand posts constructed reported on in a consolidated format for the nation each year?	0	Is there a consolidated listing or database of new connections built each year including those build by government programs, development partners and non-governmental organizations? Score 0.5 where there is documentary evidence (physical/output reporting) that over 75% of new connections built by all actors in the sector are reported to the lead agency at the level of government being assessed. Score 1 if physical reports include a listing of all locations in which those new connections have been built.	There is no lead agency collecting and consolidating this data at the national level. There are some data repositories with the different regulators.	Stakeholder Workshop Assessments

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
SUSTAINING SERVICES: URBAN WATER SUPPLY						
UWS 20	Functionality	What is the weighted average percentage of non revenue water across urban utilities (national or 3 largest utilities) (last 3 years average)?	0.5	If there are separate service providers or utilities this should apply to the weighted average for the 3 largest service providers or utilities. Score 0.5 where the NRW losses are between 20% and 40%. Score 1 if NRW losses are below 20%.	Average NRW of the three largest utilities: Manila Water: 13% NRW Maynilad 38% NRW Davao City Water District: 25%	Web reports
UWS 21	Cost recovery	Are all O&M costs for utilities (national or 3 largest utilities) being covered by revenues (user fees and/ subsidies) (last 3 years average)?	0.5	Score 0.5 where the operating ratio is between 0.8 and 1.2. Score 1 if the operating ratio is above 1.2.	All regulated utilities implement cost recovery tariffs. Operating ratio is computed as operating expenses / operating revenues.	Philippine Towns Water Utilities Data Book 2004
UWS 22	Tariff reviews	Are tariff reviews regularly conducted using a process and tariffs adjusted accordingly and published?	1	Score 0.5 where tariff reviews are regularly conducted but where there is no parallel regular adjustment of the tariff. Score 1 where both tariff reviews are regularly conducted and there is a parallel adjustment of the tariff.	Tariff of all regulated utilities are being reviewed every 5 years, or if tariff adjustments are required.	Regulatory rules of the Metropolitan Manila Water and Sewerage System and the National Water Resources Board.
UWS 23	Management of Disaster Risk and Climate Change	Do utilities (national or 3 largest utilities) have plans for coping with natural disasters and climate change?	0.5	Score 0.5 where some utilities have developed a climate action plan or most utilities have undertaken vulnerability assessments. Score 1 where the majority of urban service providers have a plan to reduce or prepare for climate and disaster impacts.	Not all water utilities have coping mechanisms for natural disasters and climate change.	Business Continuity Plans

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
UWS 24	Autonomy	Do utilities or service providers (national or 3 largest) have operational decision-making autonomy in investment planning, HR, finance (separate balance sheet) and procurement management?	1	Score 0.5 where utilities or service providers have autonomy over HR, financial management and procurement management. Score 1 where the utility also has autonomy over investment planning including specifying where and what type of investments are made (even where the actual investment comes from the public budget).	There are already LGU-run utilities that have ring-fenced their accounts and are able to prepare separate balance sheet. Other water utilities have operational decision making autonomy in investment planning, HR, finance and procurement management.	
UWS 25	Plans	Do service providers (national/state or 3 largest utilities) have business plans for expanding access to urban water?	1	Score 0.5 where the utility or service provider can present a business plan or one under preparation Score 1 where there is clear evidence that the business plan not only exists but that both aspects of the business plan - securing water resources and expanding connections - are being implemented.	All regulated water utilities prepare business plans.	Regulatory Requirements
UWS 26	Borrowing		0.5	Score 0.5 where utilities or service providers are legally able to access commercial finance. Score 1 if there is evidence that the utility or service provider is borrowing commercially to finance investment (not recurrent costs).	Based on their credit worthiness, water districts and LGU-run utilities can access commercial finance.	Presidential Decree No. 198 Executive Order No. 279 Available private financing institutions with lending facilities for urban water supply.
UWS 27	Sub-sector progress	Is the sub-sector on track to meet the stated target?	0.5	Score 0.5 where the nation is at least keeping pace with population growth. Score 1 if the trajectory in outcome reporting is within 90% of the subsector target.	Progress is just keeping pace with population growth.	JMP 2013, Annual Poverty Indicators Survey
UWS 28	Equity of use	What is the ratio of improved drinking water access between the lowest and highest quintile in urban areas?	1	Score 0.5 if the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is between 2 and 5 for the subsector. Score 1 if the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is less than 2 for the subsector.	Based on the NDS 2008 data, for total improved water sources, richest quintile is 100% while poorest is 92%. Ratio is 1.10.	EAPRO Equity Tree Analysis

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
UWS 29	Quality of user experience	What is the average number of hours of service per day across urban utilities? (Weighted by number of HH connections per utility)?	1	Based on performance data from the national utility or service provider (or 3 biggest cities) this indicator measures the average number of hours of service per day. Score 0.5 where the average number of hours service is between 6 and 12 hours a day. Score 1 if the average number of hours service is over 12 hours a day.	WDs standard is 24 hours. NWRB standard for regulated water utilities is 8 hours, although most of them have over 12 hours availability.	Reports from Metro Manila, Davao and Cebu indicate 24 hour service daily,
ENABLING SERVICES : RURAL SANITATION						
RSH 1	Sector targets	Are there RSH access targets, for households and/or communities, in the national level development plan?	1	Score 1 if the plan has targets for both rural household access to sanitation and settlement-wide sanitation (ODF communities). Score 0.5 if there are access targets for rural household sanitation but not settlement targets for ODF. Score 0 if there are no specific rural sanitation targets.	The Sustainable Sanitation policy of the Department of Health aims to have universal access to safe and adequate sanitary facilities by 2028. Furthermore, it also targets to have all barangays declared Open Defecation Free by 2022.	Department of Health Administrative Order 2010-0021
RSH 2	Sector policy	Is there a rural sanitation policy, that is agreed by stakeholders, approved by government, and publically available?	1	If there is a draft policy and this has been agreed by stakeholders but not yet approved this will be scored as 0.5. Score 1 if the policy/strategy/order/act has been consulted on with stakeholders, is officially endorsed by the government and is public and therefore all sector actors have unrestricted access to it.	No specific sector policy for rural sanitation;	Department of Health AO 2010-0021
RSH 3	Institutional roles	Are the institutional roles of rural sanitation subsector players (national/state & local government, service provider, regulator etc) clearly defined and operationalized?	0.5	A score of 0.5 can be achieved even if there is no single policy/strategy/ order/ act but the roles must be set out in recognized official policy guidance and must be distinct and consistent. A score of 1 requires that the roles are distinct and consistent and that these are operationalized.	The role of the Department of Interior and Local Government (DILG) and the Department of Health (DOH) with the LGUs as principal duty bearers in pushing for rural sanitation coverage is clearly established but are not consistently operationalized. Reasons why this may not be the case include political interference, lack of institutional capacity, insufficient recurrent budget allocations to a specific sector institution etc.	Department of Health AO 2010-0021 1975 Sanitation Code of the Philippines Stakeholder Assessment Reports

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RSH 4	Fund flow co-ordination	Does government have a process for co-ordinating multiple investments in the subsector (domestic or donor, eg. national grants, state budgets, donor loans and grants etc)?	0.5	Score 1 if co-ordination process is well defined and is operationalized. Score 0.5 if co-ordination process is defined but not operationalized.	NEDA is co-ordinating multiple investments but is not able to track all investments. There is no WSS co-ordinating committee that regularly meets to co-ordinate multiple fund flows, especially on rural sanitation.	Stakeholder Assessment Workshop
RSH 5	Investment Plan	Is there a medium term investment plan for rural sanitation based on national targets that is costed, prioritizes investment needs, is published and used?	0	Score 1 if the sector investment plan is used to channel funding according to the criteria set out in the plan, and/or is used for annual budgeting. Score 0.5 if such a plan exists but is not used, or if a plan exists but lacks some of the key quality features, or a needs assessment has been carried out and the plan is under preparation. Score 0 if the plan is not existing.	National level none	Stakeholder Assessment Workshop
RSH 6	Annual review	Is there a annual multi-stakeholder review in place to monitor subsector performance, to review progress and set corrective actions?	0	The holding of annual performance reviews that are either not multi-stakeholder or do not set corrective actions scores 0.5. Score 1 if the review is multi-stakeholder, it looks back at the previous corrective actions and sets new corrective actions.	No national annual multi-stakeholder review	Stakeholder Assessment Workshop
RSH 7	HR Capacity	Has an assessment been undertaken of the human resource needs in the sub sector to meet the subsector target and is the action plan being implemented?	0	Score 0.5 if the assessment is done but no follow up actions are taken. Score 1 if the assessment is done and actions are being taken to address skill shortages and capacity issues. Note - in a situation where ad hoc activities to develop human resources are taking place, however no assessment has been taken, this score would be	No assessment has been done.	

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RSH8	Adequacy (of financing)	Are the public financial commitments to the rural sanitation subsector sufficient to meet the national targets for the subsector?	0	Score 1 if public commitments are over 75% of that required to reach the targets. Score 0.5 if between 50% and 75% of the public finance requirements for new and replacement infrastructure have been committed over the next 3 years.	No appropriation for rural sanitation; sanitation became household responsibility; government has no program; LGUs may have existing but not all; DOH - advocacy work only	General Appropriations Act 2012, Costing tool analysis
RSH 9	Structure	Does the budget structure permit investments and subsidies (operational costs, administration, debt service, etc) for the rural sanitation sector to be clearly identified?	0	Score 1 if there is a budget line for promotion/ marketing and, where they exist, an additional budget line for household subsidies. Where there is no household subsidy a score of 1 can be achieved just by having a budget line for promotion/marketing. Score 0.5 if there is a budget line for promotion/marketing but not for household subsidies where they exist.	no, in the current budget structure, there is no mention of rural sanitation. There is no financing strategy for subsidies for poor households or collective incentives.	General Appropriations Act 2012
RSH 10	Comprehensive	Does the government budget comprehensively cover domestic and official donor investment/ subsidy to rural sanitation?	0	Score 1 if the budget captures over 75% of the flows in the subsector. Score 0.5 where the budget is deemed to capture between 50% and 75% of these flows.	No, the government budget do not show a comprehensive picture of investment flows to the sector.	2012 Philippine Development Plan and the Public Investment Plan of 2012
DEVELOPING SERVICES: RURAL SANITATION						
RSH 11	Utilization of domestic funds	What percentage of domestic funds budgeted for rural sanitation are spent for rural sanitation?	1	A score of 0.5 is given for utilization between 50% and 75%. Achieving a score of 1 requires that utilization is above 75%.	National level has limited funds for sanitation in general; more than 75% of funds are spent, mainly because the amounts referred to are quite small	DOH reports
RSH 12	Utilization of external funds	What percentage of external funds budgeted for rural sanitation are spent (3 year average)?	0.5	A score of 0.5 is given for utilization between 50% and 75%. Achieving a score of 1 requires that utilization is above 75%.		DOH/UNICEF/ WSP reports

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RSH 13	Reporting	Is rural sanitation expenditure versus budget audited and reported on in a consolidated format for all sources of domestic and official donor expenditure?	0	Score 1 where there is consolidated expenditure reporting for both domestic and donor sources. Score 0.5 where expenditure on all domestic flows is reported on. This includes expenditure from own revenue sources, block grants, special purpose grants etc.	The two indicators can only be managed if there is a consolidated expenditure reporting for all fund flows. So far, there is no consolidated format for all funding sources for rural sanitation.	Stakeholder workshop Assessment
RSH 14	Local participation	Are there clearly defined procedures for informing, consulting with and supporting local participation in planning, budgeting and implementing for rural sanitation developments?	0	Score 1 where the procedures are both codified and consistently applied across the majority (>50%) of all subsector developments. Score 0.5 where these procedures are codified	Yes local participation is there in broad strokes in policies such as NSSP/LSSP but there are no clearly defined procedures for LGUs to facilitate the development of Barangay Sanitation Plans.	Stakeholder workshop Assessment
RSH 15	Budget allocation criteria	Have criteria (or a formula) been determined to allocate rural sanitation funding equitably across rural communities and is it being applied consistently?	0	Score 1 if the criteria are codified and consistently implemented year-on-year. Score 0.5 where there are codified criteria, but not consistently applied in budget allocation.	No criteria have been determined to allocate rural sanitation funding.	DOH confirmation in Stakeholder Assessment Workshop.
RSH 16	Reducing inequality	Is there periodic analysis to assess whether allocation criteria and local participation procedures set by government have been adhered to and are reducing disparities in access?	0	Score 1 where there is evidence that these published assessments or evaluations are acted upon my government leading to improved equity principles being applied to the subsector. Score 0.5 if this analysis is carried out periodically and published for the sector or subsector	No periodic analysis being done but there would be data available to do the analysis such as the National Demographic Heath Survey.	Stakeholder Assessment Workshop

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RSH 17	Quantity	Is the annual expansion of rural households gaining access to safe sanitation sufficient to meet the subsector targets?	0	The quantity of uptake refers to whether sufficient numbers of households are taking up sanitation facilities each year for the subsector targets to be met. Score 1 if there is verifiable evidence that the quantity of uptake is sufficient to meet at least 75% of subsector targets. Score 0.5 if there is verifiable evidence that the quantity of uptake is sufficient to meet at least 50% of subsector targets.	Less than 50%. NDHS data;	NDHS
RSH 18	Capacity for promotion	Is there enough capacity - staff, expertise, tools, materials - to deliver a sanitation programme at scale, using tailored community-based and/or other approaches?	0	Score 0.5 if there is documentary evidence codified in a policy/strategy/orders/acts that there is intent to deliver a tailored sanitation promotion approach at scale. The approach should intend to cover the whole jurisdiction. Score 1 if there is both evidence of the approach at scale and that there is adequate capacity to deliver a tailored approach including of absolute staff numbers, expertise and tools/ materials in over 75% of the jurisdiction.	Low. There are CLTS programs that have shown some promise for scale but there is still a huge gap in staff, expertise. tools, and materials to deliver for scaling up.	CLTS reports ie Sarangani, SuSEA, DOH reports
RSH 19	Reporting	Does the government regularly monitor and report on progress and quality of rural sanitation access, including settlement-wide sanitation, and disseminate the results?	0	Score 1 if the Government maintains and publishes data on trends of households building toilets, villages becoming ODF, standards being met and hygienic behavior, and if there are periodic audits or checks of the information. Score 0.5 if there is partial reporting of basic quality or quantity indicators and these are not verified through spot checks. Score 0 if there is no reporting or no useful reporting.	No. Quantity yes but only every 5 years ie NDHS. Field Health Statistics and Information Survey (FHSIS) is annual but does not disaggregate rural from urban. Quality of access, no report at all.	National Demographic Health Survey (NDHS) and the Field Health Statistics and Information System (FHSIS)

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
SUSTAINING SERVICES : RURAL SANITATION						
RSH 20	Supply-chain	Does the supply-chain for sanitation products meet household needs (ready availability, quantity and cost), satisfy government standards and reach to unserved areas?	0.5	Score 0.5 if the supply chain for sanitation equipment (building materials) meets quantity but not the affordability (cost) requirements of households. Score 1 if the supply chain for sanitation equipment meets both quantity and affordability (cost) requirements of households as well as reach into remote areas and compliance with government standards	Sanitary products (toilet bowls, cement, etc.) are available in most places around the country; but still affordability is an issue	Stakeholder Assessment Workshop
RSH 21	Private sector capacity	Is there sufficient mason/artisan/ small business capacity to meet household needs (quantity, quality and cost)?	0.5	Score 0.5 if sanitation masons / artisans /small business capacity meets quantity but not the quality or affordability (cost) requirements of households. Score 1 if sanitation masons / artisans / small business meets quantity, quality and affordability (cost) requirements of households; including for pit emptying services.	Yes, masons / artisans available but not small business; quality and cost are still major bottlenecks.	Assessment Workshop Stakeholder
RSH 22	Private sector development	Does the government have programs to promote and guide the domestic private sector and facilitate innovation for the provision of sanitation services in rural areas?	0	Score 0.5 if the government is facilitating private sector development in the sanitation subsector to a some extent. Score 1 if the government is facilitating private sector development to a full extent.	No programs for facilitating private sector development in the rural sanitation.	
RSH 23	Management of Disaster Risk and Climate Change	Do local government or rural service providers have plans for coping with natural disasters and climate change?	0.5	Score 0.5 where some service providers have developed a climate action plan or most have undertaken vulnerability assessments. Score 1 where the majority of rural service providers have a plan to reduce or prepare for climate and disaster impacts.	only some municipalities have this. But there is an enabling policy for this.	Stakeholder Assessment Workshop
RSH 24	Support for expansion	Are expenditures at the local level in line with the national sanitation policy and are they sufficient to achieve national targets?	0	Score 1 if local level expenditure is in line with the policy and sufficient to achieve national targets. Score 0.5 if local expenditure is in ine with the policy but insufficient to achieve national targets. If there is no policy then the assessment should be on the basis of the local expenditure and its adequacy to support expansion to meet the national targets.	No specific rural sanitation policy. Budgets are mostly focused on toilet bowl subsidy. Only few LGUs have taken a more demand driven approach but funding has been external.	

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
RSH 25	Incentives	Has government (national or local) developed any policies, procedures or programs to stimulate uptake of rural sanitation services and behaviors by households?	0.5	Score 1 if there is a variety of instruments which has been developed and being implemented to stimulate uptake. Score 0.5 if some instruments have been developed but not implemented or there is only one instrument to stimulate rural sanitation or hygiene behavior uptake which has been developed and implemented.	Only the National Search for the Best Barangay in Sanitation Practices. But only at small scale not nationwide, not even municipal wide. Only selected barangays.	
RSH 26	Behaviors	Is the government generating and using evidence to monitor and analyze household sanitation behavior change and take action to improve sustainability?	0.5	Score 1 if there is evidence that the government is using research (own and/or by others) to understand behavior and take remedial actions across a variety of behaviors. Score 0.5 if the government is using research (own and/or by others) to understand behavior change issues but is not taking action, or is only focused on a narrow scope of behavior change.	Yes. Formative research Demand and Supply chain research on-going now being translated into Behaviour Change Campaign.	
RSH 27	Sub-sector progress	Is the sub-sector on track to meet the stated target?	0.5	Score 0.5 where the nation is at least keeping pace with population growth. Score 1 if the trajectory in outcome reporting is within 90% of the subsector target.	If a similar trend follows its unlikely to reach the national target by 2028 target of universal coverage, but at least keeping up with population growth	
RSH 28	Equity of use	What is the ratio of improved toilet access between the lowest and highest quintile in rural areas?	0.5	Score 0.5 if the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is between 2 and 5 for the subsector. Score 1 if the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is less than 2 for the subsector.	Based on NDHS 2008, the ratio of improved toilet access between the poorest quintile and the richest quintile is 3.4	EAPRO Equity Tree based on the National Demographic and Health Survey
RSH 29	Hygienic use of quality facilities	What percentage of people living in rural areas use improved toilet facilities (excluding shared facilities)?	0.5	Score 1 if use of toilets is above 75%. Score 0.5 if use of toilets is between 50% and 75%	The percentage of people living in rural areas that use improved toilet facilities (excluding shared facilities) in rural areas is 69%.	JMP; NDHS; UNICEF

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
ENABLING SERVICES: URBAN SANITATION						
USH 1	Sector Targets	Are there USH access targets (household level and sewerage/ septage management) in the national level development plan?	1	The target must be stated for urban sanitation and hygiene in percent (%) of population who has access to improved services. Examples of targets could be % of septage collected and treated adequately, % of waste collected through sewerage network; % of septic tanks connecting to sewer/drainage system, % of collected wastewater and/or septage treated.	The NSSSMP would have defined targets for 17 highly urbanizing cities. For Metro Manila, the MWSS would have the targets of the two private concessionaires.	National Sewerage and Septage Management Program (NSSMP) MWSS reports Philippine Country Study of the EA urban Sanitation Flagship Study
USH 2	Sector policy	Is there an urban sanitation policy that is agreed by stakeholders, approved by government, and publically available?	1	Score 1 if the policy/strategy/order/act has been consulted on with stakeholders, is officially endorsed by the government and is public and therefore all sector actors have unrestricted access to.	Policy available. Need for dissemination and promotion to emphasize importance of the issue.	Sanitation Code Building Code
USH 3	Institutional Roles	Are the institutional roles of urban sanitation subsector players (national/state & local government, service provider, regulator etc.) clearly defined and operationalized?	0.5	A score of 0.5 can be achieved even if there is no single policy/strategy/order/act but the roles must be set out in recognized official policy guidance and must be distinct and consistent. A score of 1 requires that the roles are distinct and consistent and that these are operationalized.	Agencies have clear mandates but are overlapping; no overarching institutional framework. To assign specific institution to lead and to equip for the position.	
USH 4	Fund flow co-ordination	Does government have a process for co-ordinating multiple investments in the subsector (domestic or donor, eg. National grants, state budgets, donor loans and grants etc.)?	0	The process should be codified in some way e.g. as terms of reference of a working group and there should be evidence that there are regular meetings to co-ordinate the multiple fund flows. In donor dependent countries this may be known as a sectorwide approach (SWAp) in other countries as a an infrastructure or WSS co-ordinating committee.	The Department of Budget and Management, Department of Finance and the Commission on Audit needs to take special roles; all funds towards the sector (congressional, national, LGU, senate, donations, grants) should be co-ordinated.	Stakeholder assessment workshop
USH 5	Investment plans	Is there a medium term investment plan for urban sanitation based on national targets that is costed, prioritizes investment needs, is published and used?	0.5	Score 1 if the sector investment plan is used to channel funding according to the criteria set out in the plan, and/or is used for annual budgeting. Score 0.5 if such a plan exists but is not used, or if a plan exists but lacks some of the key quality features, or a needs assessment has been carried out and the plan is under preparation. Score 0 if the plan is not existing.	To cover more areas of investment for sanitation projects.	

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
USH 6	Annual review	Is there an annual multi-stakeholder review in place to monitor subsector performance, to review progress and set corrective actions?	0	These reviews should be government-led but involve sector stakeholders. Note these are sub-sector reviews and not individual project/ program reviews. The holding of annual performance reviews that are either not multi-stakeholder or do not set corrective actions scores 0.5. Achieving a score of 1 requires that the review is multi-stakeholder, that it looks back at the previous corrective actions and sets new corrective actions.	There is no annual multi stakeholder review for urban sanitation.	Stakeholder Assessment Workshop
USH 7	HR Capacity	Has an assessment been undertaken of the human resource needs in the sub sector to meet the subsector target and is the action plan being implemented?	0	Score 0.5 if the assessment is done but no follow up actions are taken. Score 1 if the assessment is done and actions are being taken to address skill shortages and capacity issues. Note - in a situation where ad hoc activities to develop human resources are taking place, however no assessment has been taken, this score would be 0.	No HR capacity assessment related to sanitation - capacity building and training.	
USH 8	Adequacy	Are the annual public financial commitments to the urban sanitation subsector sufficient to meet national targets for the subsector?	0.5	A score of 1 is given where public commitments are over 75% of that required to reach the targets. A score of 0.5 is given if between 50% and 75% of the public finance requirements for new and replacement infrastructure have been committed over the next 3 years.	Public financial commitment to urban sanitation is about 65% of needs. Need to Increase/ raise existing allocation.	
USH 9	Structure	Does the budget structure permit investments and subsidies (operational costs, administration, debt service, etc) for the urban sanitation sector to be clearly identified?	0.5	Achieving a score of 1 requires that there is a budget line for investment and where they exist an additional budget line for subsidies. Where subsidies do not exist, a score of 1 can be achieved just by having a budget line for investment. A score of 0.5 is given where there is a budget line for investment but not for subsidies where they exist.	A budget line has been included in the General Appropriations Act of 2013.	General Appropriations Act

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
USH 10	Comprehensive	Does the government budget comprehensively cover domestic and official donor investment/ subsidy to urban sanitation?	0	Achieving a score of 1 requires that the budget captures over 75% of the flows in the subsector. A score of 0.5 is given where the budget is deemed to capture between 50% and 75% of these flows.	There is no clear and comprehensive report on urban sanitation investment flows.	Stakeholder Assessment Workshop
DEVELOPING SERVICES: URBAN SANITATION						
USH 11	Utilization of domestic funds	What percentage of domestic funds budgeted for urban sanitation are spent (3 year average)?	0	A score of 0.5 is given for utilization between 50% and 75%. Achieving a score of 1 requires that utilization is above 75%.	The NSSMP budget had to be realigned in 2013 due to low utilization.	Stakeholder Assessment Workshop
USH 12	Utilization of external funds	What percentage of external funds budgeted for urban sanitation are spent (3 year average)?	0.5	A score of 0.5 is given for utilization between 50% and 75%. Achieving a score of 1 requires that utilization is above 75%.	External funds for urban sanitation comes from limited sources. This generally comes from World Bank Grants, PWRF (Mostly TA), Rotary Club International Donations (Small water utilities treatment plants), private funds	Stakeholder Assessment Workshop
USH 13	Reporting	Is urban sanitation expenditure versus budget audited and reported on in a consolidated format for all sources of domestic and official donor expenditure?	0	A score of 1 is achieved where there is consolidated expenditure reporting for both domestic and donor sources. A score of 0.5 given where expenditure on all domestic flows is reported on. This includes expenditure from own revenue sources, block grants, special purpose grants etc.	no consolidated expenditure reporting for urban sanitation.	Stakeholder Assessment Workshop
USH 14	Local participation	Are there clearly defined procedures for informing, consulting with and supporting local participation in planning, budgeting and implementing for urban sanitation developments?	0.5	Achieving a score of 1 requires that the procedures are both codified and consistently applied across the majority (>50%) of all subsector developments. A score of 0.5 is given where these procedures are codified. The source should be given in the report.	Procedures are specified in the NSSMP guidelines.	NSSMP operations manual underway

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
USH 15	Budget allocation criteria	Have criteria (or a formula) been determined to allocate urban sanitation funding equitably to urban utilities or service providers and among municipalities and is it being consistently applied?	0	Achieving a score of 1 requires that the criteria are codified and consistently implemented year-on-year. A score of 0.5 is given where there are codified criteria, but not consistently applied in budget allocation.	no policy, critiria, order or act on allocation of urban sanitation funding.	Stakeholder Assessment Workshop
USH 16	Reducing inequality	Do local government or urban service providers (national or in 3 largest cities) have specific plans or measures developed and implemented for serving the urban poor?	0	Achieving a score of 1 requires that there is documentary evidence that these plans to serve the unserved poor are being implemented. If the assessment is of the 3 largest cities at least 2 cities must be able to show that plans to serve the poor are being implemented. A score of 0.5 is given where pro-poor service delivery development plans have been developed. If the assessment is of the 3 largest cities at least 2 cities must have plans to serve the poor.	Providing urban sanitation services to the poor is not a priority of local government and or urban service providers. There is no clear plan for pro-poor urban sanitation strategies.	Stakeholder Assessment Workshop
USH 17	Quantity (access)	Is the annual expansion of urban households gaining access to safe sanitation sufficient to meet the subsector targets?	0	The quantity of uptake refers to whether sufficient numbers of households are taking up sanitation facilities each year for the subsector targets to be met. Achieving a score of 1 requires that there is verifiable evidence that the quantity of uptake is sufficient to meet at least 75% of subsector targets. A score of 0.5 is given if there is verifiable evidence that the quantity of uptake is sufficient to meet at least 50% of subsector targets.	No reliable evidence that quantity of uptake is sufficient to meet at least 50% of subsector targets	Stakeholder Assessment Workshop
USH 18	Quantity (treatment)	Is the annual increase in the proportion of fecal waste that is safely collected and treated growing at the pace required to meet the subsector targets (for both onsite and sewerage)?	0	Score 1 if the annual increase in urban fecal waste collection and treatment capacity is sufficient to meet subsector targets. Score 0.5 where the annual increase in urban fecal waste collection capacity is sufficient to meet subsector targets.	Urban fecal waste collection is not consistently assessed and monitored countrywide. Only those for Metro Manila are monitored and are not representative of sector targets. The NSSMP projects and targets have not yet taken off.	Stakeholder Assessment Workshop Urban Sanitation Flagship Study Philippines country Report 2012

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
USH 19	Reporting	Are there procedures and processes applied on a regular basis to monitor urban sanitation access and the quality of services and is the information disseminated?	0	Score 1 if there are comprehensive procedures and processes, such as through a regularly verified monitoring system which disseminates the results. Score 0.5 if only quality or quantity is reported on.	Gov't has limited capacity to regularly monitor and report on results for urban sanitation including access, and quality of services.	Stakeholder Workshop Assessment
USH 20	Collection and treatment	What is the proportion of total faecal waste generated that gets safely collected and treated?	0	Collection means collection from the HH level to the treatment plant. Score 0.5 where more than 50% of urban fecal waste generated is collected. Score 1 if more than 75% of urban fecal waste generated is collected AND treated.	This indicator measures collection and treatment capacity in relation to the total fecal waste produced. Collection means collection from the HH level to the treatment plant. Less than 50% of urban fecal waste generated is collected	Urban Sanitation Flagship Study Philippines country Report 2012 Stakeholder Assessment Workshop
USH 21	Cost recovery	Are O&M costs of treatment systems (beyond household level facilities) assessed/known and fully met by either cost recovery through user fees and/or local revenue or transfers?	0	Score 0.5 where there is an O&M policy, costs are estimated and over 50% are covered. An estimation would be based on e.g. a % of capital value. Score 1 where there is an O&M policy, costs are known and over 75% are covered. An assessment would be based on actual cost data.	O and M policy is not national in scope. For some service areas, the O&M cost are recovered through water tariffs (for households) such as in Metro Manila and a few cities.	Urban Sanitation Flagship Study Philippines country Report 2012 Stakeholder Assessment Workshop
USH 22	Discharge	Are there norms and standards for wastewater discharge for septage and sewerage treatment plants that are systematically monitored under a regime of sanctions (penalties)?	0	This indicator only refers to the discharge of wastewater at institutional treatment plants for sewerage or septage; Evidence from the agency responsible for enforcement of standards is required to illustrate whether or not sanctions have been issued	Regulators are lacking logistics and personnel (DENR-EMB, LLDA)	Stakeholder Assessment Workshop
USH 23	Management of Disaster Risk and Climate Change	Do local government or service providers (national or in 3 largest cities) have plans for coping with natural disasters and climate change?	0	Score 0.5 where some service providers have developed a climate action plan or most have undertaken vulnerability assessments. Score 1 where the majority of urban service providers have a plan to reduce or prepare for climate and disaster impacts.	The design of facilities of the concessionaires are climate change resilient. There is no specific reporting system for measures being undertaken to address climate and disaster risk reduction. Aspect related to climate and natural disasters should be filed to cencerned agencies (NDRRMC and CCC)	Stakeholder Assessment Workshop

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
USH 24	Uptake	Has government (national or local) developed any policies, procedures or programs to stimulate uptake of urban sanitation services and behaviors by households?	0.5	Score 1 if there is a variety of instruments which has been developed and being implemented to stimulate uptake. Score 0.5 if some instruments have been developed but not implemented or there is only one instrument to stimulate urban sanitation uptake which has been developed and implemented.	Thre are LGUs with Sanitation Ordinances (Marikina, Muntinlupa, Makati, Alabel, Sta. Rosa, Zambaonga City, San Fernando, etc.)	Stakeholder Assessment Workshop
USH 25	Plans	Do government/service providers have business plans for expanding the proportion of citywide fecal waste that is safely collected and treated?	0.5	Score 0.5 where the utility or service provider can present a business plan or one under preparation Score 1 where there is clear evidence that the business plan not only exists but that both aspects of expansion - safe collection and treatment - are being implemented.	In the MWSS service areas, concessionaires have business plans which are reviewed by the regulators every 5 years. Water districts are mandated to address sanitation.	Submitted Business plans
USH 26	Private sector development	Does the government have ongoing programs and measures to strengthen the domestic private sector for the provision of sanitation services in urban or peri-urban areas?	0	Score 0 in the case where the government has not developed any concrete interventions to strengthen private sector role; Score 0.5 if government is currently developing and researching possibilities to strengthen the private sector; Score 1 point in case several programs and examples can be found where government has actively promoted the private sector to get involved in urban sanitation delivery.	Government has not developed any concrete interventions to strengthen private sector role in urban sanitation.	Stakeholder Assessment Workshop
USH 27	Sub-sector progress	Is the sub-sector on track to meet the stated target?	0	Score 0.5 where the nation is at least keeping pace with population growth. Score 1 if the trajectory in outcome reporting is within 90% of the subsector target.	There is no national target. There is only NSSMP project based targets.	NSSMP targets

Sub-sector	Areas of evidence for assessment	Question	Score	Criteria for scoring	Explanation for score	Source of evidence
USH 28	Equity of use	What is the ratio of improved toilet access between the lowest and highest quintile in urban areas?	0.5	Score 0.5 if the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is between 2 and 5 for the subsector. Score 1 if the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is less than 2 for the subsector.	the % of access in the wealthiest quintile divided by the % of access in the poorest quintile is between 2.26.	NDHS 2008, EAPRO Equity Tree
USH 29	Use of facilities	What percentage of people living in urban areas use improved toilet facilities (excluding shared facilities)?	0.5	This indicator focuses on absolute levels of access at household level. The level of ambition has been set quite high, to reflect the situation in EAP. Source of data is JMP and/or national data.	Level of access is currently 79% of people living in urban areas use improved toilet facilities.	JMP 2013 Data

Annex 2: Key Assumptions and Inputs for Costing Analysis

This annex describes the key inputs that were used to generate estimates of the required, anticipated and recent expenditures. It discusses the sources, adjustments and assumptions of the following information: exchange rates, demographic variables, sector-specific technologies and spending plans.

Exchange Rates

For the years 2009-2012, values expressed in Philippine pesos (PhP) were converted into US Dollars using exchange rates extracted from the Bangko Sentral ng Pilipinas. Projections for 2013 employed the mid-point of the exchange rate used in the national budget (DBM, 2013). The exchange rate for 2014 was assumed to be the same as in 2013.

Demographic Variables

The costing tool requires two sets of demographic variables. The first represents rural and urban population estimates for 1993, 2008 and the target year (2025 for water supply and 2028 for sanitation). Combined with existing and target coverage rates for water supply and sanitation, this information is used to calculate the number of people that will require access to improved facilities from 2009 to the target year. The second set of information refers to the average size of households. This is used to convert costs of facilities, which are generally in expressed on a per household basis, into per capita terms. The value used in the analysis for this variable (4.6 members/household) was drawn from the NSO (undated).

Table A2.1 shows the key demographic variables used in the analysis. Population data for 1993 was taken from the JMP (2012). On the other hand, population for 2008 used information from the UN (2010) for the total and JMP (2012) data to apportion the total between rural and urban areas. The rural and urban populations for 2025 and 2028 were then calculated by the application of projected population growth rates from the United Nations (2012).

Table A2.1 Demographic variables

Region	Population (million persons)				Population growth rate assumed from 2009-2028 (% p.a.)
	1993	2008	2025	2028	
Rural	34	47	57	59	1.2
Urban	32	44	63	68	1.2
National	66	90	120	127	Not calculated

Table A2.2 Current and target coverage rates

Sector	2008	target[a]
Rural water supply	86%	100% (2025)
Urban water supply	94%	100% (2025)
Rural sanitation	79%	100% (2028)
Urban sanitation	94%	100% (2028)

[a] *Target years are in parenthesis.*

Coverage rates

Table A2.2 shows the baseline (2008) and target coverage rates for water supply and sanitation. The 2008 coverage rates were sourced from the NDHS (NSO, 2008) while the targets were taken from the water supply (NEDA, 2010) and sanitation (DOH, 2009) roadmaps that were prepared by the national government.

Sector-Specific Technologies: Water

Information on sector-specific technologies is essential in the calculation of investment requirements and its components. Table A2.3 presents information on household distribution, costs and lifespans of key water supply technologies. The options included and their distribution for 2008 were based on the 2008 NDHS (NSO, 2009; JMP, 2012a).

Recognizing that the distributions of technologies in 2008 and 2025 are most likely to be different and that there is no document that provides solid information for the target year, the strategy adopted in the analysis was ask the stakeholders who were present in a consultation workshop at Tagaytay City on March 2013. The agreed approach was to follow the pattern used by Villaluna (2013), which assumed that 90% of population in 2025 will have access to Level 2 and 3 facilities and the remainder will only have access to Level 1 facilities.[48] In consultation with stakeholders in the Tagaytay workshop on March 2013, people with access to piped dwelling into yard were treated as having a Level 3 system. People with access to a public tap were assumed to have a Level 2 system. People with access to tubewell/borehole were considered as having a mix of Level 1 and 2 systems. All other options were treated as Level 1 systems.

Table A2.3 Selected information on water supply sources[a]

Option	Distribution of facilities (2008, % of population with access to improved facilities)		Projected distribution of facilities (2025, % of population with access to improved facilities)		Unit capital cost ($/capita, 2012 prices)		Lifespan (years)
	Rural	Urban	Rural	Urban	Rural	Urban	
Piped into dwelling/ yard	27%	63%	45%	71%	89	128	25.0
Publictap	9%	6%	13%	8%	28	28	8.0
Tubewell/borehole	37%	24%	33%	20%	27	27	5.5
Improved dug well	12%	4%	4%	1%	19	19	10.0
Protected spring	14%	3%	4%	1%	19	19	10.0
Rainwater	1%	1%	0%	0%	19	19	10.0
Total	100%	100%	100%	100%	nc	nc	nc

[a] *na = not available, nc = not calculated.*

[48] The Philippine Water Supply Roadmap (NEDA, 2010) provides definitions of Levels 1 to 3 water services that are based on NEDA Board Resoluiation No. 12. These are as follows. Level 1 (point sources) is 'a protected well or a developed spring with an outlet but without a distribution system as it is generally adaptable for rural areas where the houses are thinly scattered serving average of 15 households with people having to fetch water from up to 250 meters distance.' Level 2 (communal water faucet system or stand post) is 'a piped system with communal or public faucets usually serving 4-6 households within 25 meters distance.' Level 3 is 'a fully reticulated system with individual house connections based on a daily water demand of more than 100 liters per person.'

A difficulty with the approach above is that Villaluna (2013) does not provide guidance for a rural-urban analysis. Hence the strategy adopted in the analysis was to first apportion the shares across the technologies at the national level. This was then allocated across regions by assuming that the ratio of the urban to rural users for a particular technology in 2025 is the same as in 2008. In other words, if there are five times as many people in urban areas compared to rural areas had access to piped facilities in 2008, then there will still be five times as many people in urban regions compared to rural regions that will have access to piped facilities in 2025.

Unit capital costs represent expenditures for materials and labor employed in the construction of the different facilities. The values used in the analysis were calculated using the raw data on the costs of Levels 1 to 3 systems provided in Villaluna (2013). The dataset contained information on 216 projects which were financed by the following: (a) SALINTUBIG project of the DILG, (b) KALAHI-CIDDS project of the DWSD, (c) Mindanao Basic Urban Services Sector Project of the DILG, (d) A Single Drop NGO, (e) Land Bank of the Philippines, (f) selected water districts, and (g) various private institutions.

Lifespan represents the projected number of years before a facility is fully replaced. The values used in the analysis represent averages of the information provided a consultation workshop at Tagaytay City on March 2013.

Sector-Specific Technologies: Sanitation

Table A2.4 presents information on the expected household distribution, costs and lifespans of key sanitation technologies. The options included were based on the technologies reported in the 2008 NDHS (NSO, 2009; JMP, 2012b).

Similar to water supply technologies, the distribution of sanitation options for 2008 was based on the shares indicated in the 2008 NDHS (NSO, 2009; JMP, 2012b). The difficult part of the analysis was generating a distribution of options for the target year because there is no document which provides the information. The approach used in the analysis was therefore based on the opinions of the participants in separate consultation workshops. In the case of rural sanitation, the agreed approach (Tagaytay consultation workshop, March 2013) was to base the 2028

Table A2.4 Selected information on sanitation technologies

Option	Distribution of facilities (2008, % of population with access to improved facilities)		Projected distribution of facilities (2025, % of population with access to improved facilities		Unit capital cost ($/capita, 2012 prices)		Lifespan (years)
	Rural	Urban	Rural	Urban	Rural	Urban	
Piped into dwelling/yard	3%	3%	4%	20%	57	250	25
Publictap	54%	73%	61%	80%	27	27	13
Tubewell/borehole	18%	5%	10%	0%	25	25	6
Improved dug well	6%	1%	3%	0%	10	10	2
Protected spring	1%	0%	0%	0%	21	21	10
Rainwater	19%	18%	22%	0%	25	27	11
Total	100%	100%	100%	100%	nc	nc	nc

technology mix on the trends implied by the shares of the technologies in the 1993 and 2008 NDHS.

For urban sanitation, the 2028 technology mix was determined in consultation with stakeholders at a workshop on June 2013 in Pasig city. It is important to note that the projected sewer coverage in urban areas (20%) falls within the possible range of targets for urban areas. The World Bank and AusAID (2012) estimated that the targets of NSSMP and concessionaires in Metro Manila suggests an urban sewerage target of 10%-15% by 2020. Applying the implied incremental increases from 2008 to 2020 implies a sewerage target of 14%-27% for urban areas in 2028.

The unit costs of facilities were drawn from various sources. The cost of flush toilets to piped sewer in urban areas (US$ 250/person) was obtained from the World Bank and AusAID (2013).[49] This value is at the lower end of the per capita costs presented in the ESI study and World Bank and AusAID East Asia Flagship study.[50] In the absence of estimates for rural areas, it was assumed that the costs of sewers for the rural population are half of the costs of sewers used in the ESI study. The guiding principle behind the assumption is that sewers in rural areas are likely to be less sophisticated than in urban areas, perhaps consisting only of drains and without treatment.

Costs of flush toilets to septic tanks and composting toilets were taken from the Water, Agroforestry, Nutrition and Development (WAND) Foundation. The costs are conservative and assume that the facilities are made inexpensive and locally available materials for the superstructure. In the case of toilets to septic tanks for example, per capita costs used in the ESI (Rodriguez et al., 2010) were more than 8 times higher at US$ 226/person. A separate study by the REEECS et al. (2013) suggests costs of US$ 40-100 per person in rural areas.[51] In the case of composting toilets, the per capita costs used in the analysis (US$ 21/person) are a sixth of the average value used in the ESI study (Rodriguez et. al., 2010).

The costs of dry and wet pits used in the analysis were obtained from the ESI study (Rodriguez et al., 2010). Costs for shared toilets/latrines were weighted averages of the other facilities included in the analysis.

Most Information on the lifespan of facilities was initially drawn from Rodriguez et al. (2011). However, some values were revised following the comments provided in the consultation workshop in Tagaytay City on March 2013. The key revision arising out of the workshop was in the costs and lifespan of shared facilities. The current analysis assumes that the shares of the technologies among households that which shared facilities are the same as those households that have access to private facilities. It also assumes that a shared facility is used by three households. The lifespan of toilets to septic tanks was based on estimates provided by the WAND foundation.

A note on septage management

Table A2.4 does not contain information on septage management for those households that have access to toilets and septic tanks. However, such facilities are incorporated in the plans under the NSSMP and the targets of the concessionaires in Metro Manila and should therefore be included in the analysis.

Investment requirements for septage treatment were calculated separately and incorporated in urban CAPEX requirements for sanitation under the heading of 'Others' (see Figure 15). The assumptions for calculating annual CAPEX requirements for septage treatment are as follows. The baseline for the analysis was World Bank and AusAID (2012) estimate that about 10% of septage was treated in urban areas as of 2010. The same source also estimated that the NSSMP (for outside Metro Manila) and concessionaire plans in Metro Manila suggests that 70% of the urban population will have access to septage treatment by 2020. The current analysis assumes that the magnitude

[49] The same source indicates that the US$ 250 per person is based on master plans of Metro Manila.

[50] The ESI study (Rodriguez et. al., 2010) reports a CAPEX cost of US$ 144 per person for the sewage treatment. The World Bank and AusAID (2012) indicates CAPEX costs for decentralized sewage treatment systems of US$ 100-300 per person. It also estimates costs of US$ 450-1,300 per person for centralized systems. All values are at 2012 prices.

[51] The study indicates costs of PhP 8,000 – 20,000 per facility. It does not indicate whether the facility includes a septic tank.

of changes from 2010 to 2020 will continue. This in turn suggests that all of the urban population that have access to toilets and septic tanks (80% as indicated in Table A2.4) will have access to septage treatment by 2028. In short, the target for the analysis is that 80% of the urban population will have access to septage treatment by 2028.

CAPEX costs for septage treatment were assumed to be about US$ 9 per person. This is the mid-point of the estimates of the USAID Water and Sanitation Sector Assessment and the projects of concessionaires in Metro Manila that were reported in the World Bank and AusAID (2012).[52] The costs are higher than the US$ 5 per person used in the NSSMP (DPWH et. al., 2009) and the lower than the US$ 53 per person used the in the ESI study (Rodriguez et. al., 2010).

Spending Plans

In order to get a sense of how allocations for the short to medium term measure against investment requirements, capital expenditures of the government, donor agencies, NGOs and private institutions from 2009 to 2014 were obtained from published documents and interviews. An attempt was also made project the contribution of households or users in water and sanitation investments.

Table A2.5 shows the estimated average annual spending of key stakeholders from 2009 to 2014. As mentioned in the text, the starting point for compiling this dataset is to examine various releases of the General Appropriations Act (GAA) and Budget of Expenditures and Sources of Financing, and the websites of the stakeholders. The process was followed by visits the various government agencies and other stakeholders in order to validate the information collected from documents. The government agencies and Government Owned and Controlled Corporations (GOCCs) visited were: (a) Department of Social Welfare and Development, (b) Department of Public Works and Highways, (c) Department of Health, (d) Department of Interior and Local Government, (e) Department of Agrarian Reform, (f) Local Water Utilities Administration, (g) Metropolitan Water Works and Sewerage System, and (h) Development Bank of the Philippines. Other firms and institutions consulted were: (a) World Bank, (b) Asian Development Bank, (c) Japan International Cooperation Agency, and (d) United States Agency for International Development, (e) Manila Water, (f) Maynilad, (g) Philippine Water Revolving Fund.

Government funds reflected in Table A2.5 include the allocations to DOH, DILG and LWUA (2012-2014 only). It also includes estimated counterpart funds provided by local government units to projects of the DOH (SALINTUBIG), DILG (SALINTUBIG), DSWD (Kalahi-CIDDS) and DAR. Donor funds include those coming from the JICA, ADB, IFAD and the World Bank. It also includes donor funds coursed through projects of the DSWD (Kalahi-CIDSS) and DAR. The budgets/expenditures of the two concessionaires in Metro Manila make up all of the funds under the heading of NGOs & private sector.

The process of the collecting and compiling the information for capital expenditures was difficult and the subject to the following issues/limitations. Expenditures of local government units (LGUs) and water districts (WDs) were limited to counterpart funds provided by these institutions to the projects of the national government and development partners. Expenditures financed by the LGUs, WDs, NGOs and small water private service providers sourced from internal funds or borrowed from commercial banks because consolidated data was not available.

Future allocations of multi-purpose demand driven funds were also excluded due to the uncertainty over how and where these funds are likely to be used. Examples include future allocations of the Support for Strategic Local Development and Investment Project of the World Bank,

[52] The costs indicated range from US$ 8.5 to US$10 per person.

[53] Formerly called the Kapit-Bisig Laban sa Kahirapan – Comprehensive Integrated Delivery of Social Service (KALAHI-CIDSS).

National Community Driven Development Program[53] project of the Department of Social Welfare and Development (DSWD), and the Environmental Development Project of the Japan International Cooperation Agency (JICA).

Apart from the expected difficulties associated with collecting information from various sources, other challenges were confronted in the process. The costing tool only uses information on hardware costs (e.g. construction costs of facilities) and excludes software costs (e.g. training and awareness programs). Moreover, such information must be disaggregated between the four sectors (i.e., rural water supply, urban water supply, rural sanitation, and urban sanitation) and, in the case of multi-year projects, for each year. However, the disaggregation desired for the analysis is not always readily available, or even known, for projects. In such instances, the study team consulted project implementers and other experts to seek further documents or make educated approximations.

There is no reliable dataset that could provide information on the anticipated capital expenditures of households on water supply and sanitation. This was therefore modeled in the costing tool by assuming that households contribute a fixed proportion of the expenditures for a particular technology. In other words, household CAPEX was calculated using the estimates of the contribution of the other stakeholders (e.g. government, utilities and development partners) and assumed household share for a particular technology. To illustrate, assume that 10% of the costs of a deep well is supposed to be provided by households. If the other stakeholders were found to have contributed US$ 90 million for deep wells in a particular year, then the household contribution is estimated to be US$ 10 million.

Table A2.5 Anticipated (2012-2014) and recent (2009-2011) public investments (million US$, annual averages)

Sector	Government	Donors/ Development partners	NGOs & private sector	Total
Anticipated (2012-2014)				
Rural water supply	28	3	1	32
Urban water supply	12	4	290	306
Rural sanitation	1	0	0	1
Urban sanitation	20	11	264	295
Recent (2009-2014)				
Rural water supply	6	2	-	8
Urban water supply	-	4	224	228
Rural sanitation	0	0	-	0
Urban sanitation	-	8	46	55

Data on user shares could be based on an expressed policy that is supported by documentation. Since such information is not available for the Philippines, user shares were generated from a consultation with experts in Tagaytay City on March 2013. The values generated from the process are presented in Table A2.6. In the case of piped dwelling into yard, the share of the household represents the connection fee. All other costs of the facilities are assumed to be initially shouldered by the service provider/donor/ government. For flush toilets to septic tanks, pit latrines and composting toilets, the agreement in the workshop at Tagaytay was that all of the investment costs are expected to be shouldered by households. However, this was later reduced to 99% to account for the possibility that there might be institutions providing subsidies for such facilities in rural and urban areas. In the case of shared toilets, the values used weighted averages of the user shares for the other facilities.

Table A2.6 Share of users in capital/development costs, %

Technology	Rural	Urban
Water Supply		
Piped into dwelling/yard	20%	39%
Publictap	0%	0%
Tubewell/Borehole	90%	90%
Improved dug well	90%	90%
Protected spring	0%	0%
Rainwater	0%	0%
Sanitation		
Flush to piped sewer	0%	0%
Flush to septic tank	99%	99%
Flush to pit latrine	99%	99%
Dry pit	99%	99%
Composting toilet	99%	99%
Shared	95%	95%

Annex 3: Comparative Explanation of SDA Costing

This annex describes the key differences in the assumptions and estimates of the SDA costing tool used in the current analysis and the Study on Developing the Institutional Framework for the Water Supply and Sanitation Sector and Identifying Investment Plans and Programs (De Vera et al., 2013) which was conducted for the Department of Public Works and Highways.

Annex Table A3.1 indicates that investment requirements in the current analysis are substantially higher than those obtained in the De Vera study. In the case of water supply for example, investment requirements reported for the SDA (US$ 838 million) were about four times higher than the estimates of the De Vera study. The divergence between the two sets of results can be explained by differences in assumptions. The most obvious difference lies in the decision to estimate replacement costs in the SDA. SDA estimates however remain larger, even if replacement costs are removed, because of (a) higher coverage rates in the target year, (b) the inclusion of Level 1 facilities for the water supply estimates, and (c) the inclusion of the toilets and on-site facilities for sanitation.

Table A3.1 Differences between the estimates of the De Vera report and SDA

	De Vera report	SDA
Investment requirements (million US$/year at 2012 prices)		
Water supply	209[a]	838
New	209	240
Replacement	n.a.	597
Sanitation	40[a]	619
New	40	240[b]
Replacement	n.a.	379[b]
Inputs for the calculation of investment requirements		
Costs included		
Hardware/infrastructure	Yes	Yes
Capacity building	Yes	No
Replacement costs	Yes	No
Facilities: water supply		
Level 1	No	Yes
Level 2	Yes	Yes
Level 3	Yes	Yes

Table A3.1 Differences between the estimates of the De Vera report and SDA (*continued*)

	De Vera report	SDA
Facilities: sanitation		
On-site facilities (including latrines)	No	Yes
Off-site facilities	Yes	Yes
Target year		
Water supply	2025	2025
Sanitation	2030[c]	2028
Coverage at target year: water supply (% of population)	80%	100%
Coverage at target year: sanitation	Septage facilities for 480 LGUs and sewerage facilities for 35 HUCs	100%
Unit costs: Sanitation (US$ at 2012 prices)		
Septage facility per LGU		
per LGU	835,649[e]	n.a.
per person	n.a.	153[d]
Sewerage facility per HUC		
per HUC	16,052,661[e]	n.a.
per person	n.a.	36[d]
Other facilities	n.a.	see Annex 2
Unit costs: Water supply (US$/person at 2012 prices)		
Level 1	n.a.	19[d]
Level 2	26	28[d]
Level 3	59	108[d]

[a] The estimates presented in the report were for the entire period of analysis, and expressed in pesos and at 2013 prices. These were annualized and converted to the current units using the 2012 peso dollar exchange rate and the assumption in the De Vera report that prices are rising at a rate of 4% per year. [b] Includes costs of the STF. [c] While the target year is 2030, the estimates of investment requirement were for 2025. [d] Simple averages of costs for rural and urban areas. See Annex 2 for the details. [e] The estimates presented in the report were expressed in pesos and at 2013 prices. These were converted to the current units using the 2012 peso dollar exchange rate and the assumption in the De Vera report that prices are rising at a rate of 4% per year.

wsp
water and
sanitation program

WORLD BANK GROUP