

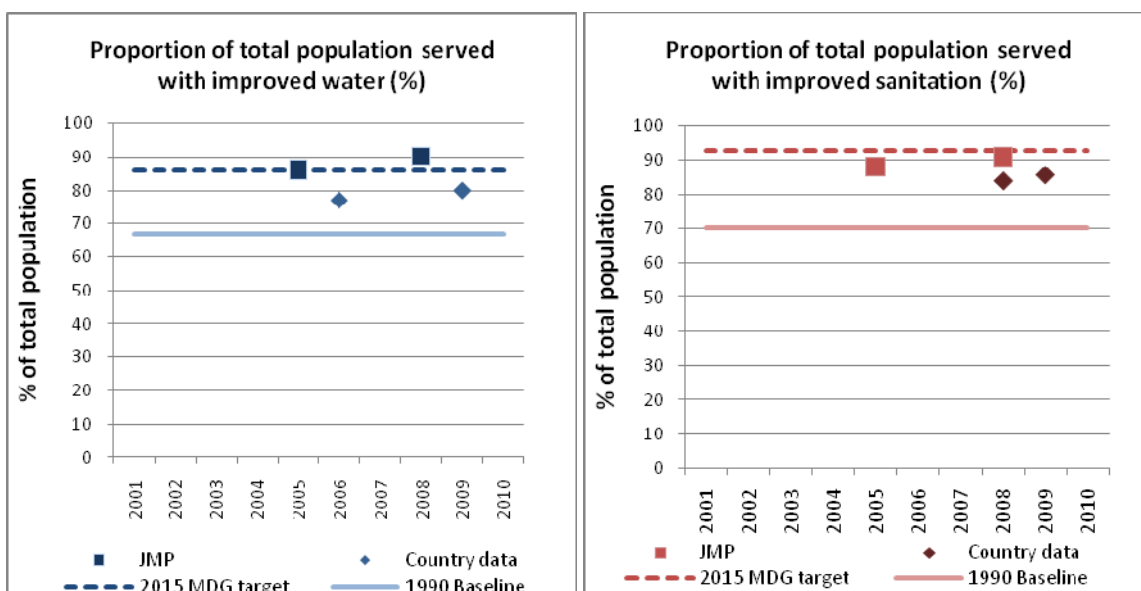
Headline issues

- Delays and shortfalls in the government's share of WASH funding hampers the full utilisation of the foreign aid that Sri Lanka receives for this sector.
- The focus of 'sanitation coverage' on access to toilets – the user-interface of sanitation systems – means that rehabilitation of other existing but failing parts of the system receive little or no investment.
- There is urgent need for enhancement of the institutional capacity of local authorities to ensure adequate performance of onsite systems (including sludge management).
- Areas in the North and East of the country that have recently emerged from three decades of civil war are particularly in need of WASH investment. The plantations area also suffers from low service coverage.
- WASH infrastructure for schools and for public places are other areas of great need.

Coverage and WASH health related statistics

Sri Lanka is well on track to meet its MDG targets for water and sanitation. The Sri Lanka Department of Census and Statistics (DCS) collect data on behalf of the WHO/UNICEF Joint Monitoring Program (JMP).¹ Coverage in the areas affected by civil conflict were excluded in the 2008 (and previous) national coverage figures published by JMP in 2010. Figure 1 compares JMP data and country estimates that have been adjusted for coverage in the excluded areas.² DCS estimates the sanitation target has already been met.¹ A national census is planned for 2012, the first since 2001,³ and will provide a more accurate account of coverage. The country has a national target to achieve 100% coverage for both safe water and sanitation by 2025.⁴

Figure 1: Access to improved water and sanitation



Source: WHO/UNICEF Joint Monitoring Program (JMP) (2010) data for 2008.⁵ Country data from NWSDB and SACOSAN 2011 country paper.⁶

Although significant advances have been made in increasing access to safe water, the coverage statistics conceal wide disparities. The urban sector has 95% coverage whereas coverage in the plantation regions is only 58%.¹ In the rural North, recently emerged from decades of civil conflict and consequent damage to infrastructure, only 40% of the population has access and many must travel several kilometres for water. Operational water supply schemes often provide just 1 hour of daily supply.⁷ Water infrastructure in towns in the North and East are under pressure from urban migration, driven by both the lack of rural water and the ongoing resettlement of internally displaced persons from refugee camps.⁸

Nationally, 37% of the population receive piped water supply, which comprises 95% of the urban population. Over half of the piped water connections are in the Western province.² Rural populations are supplied by small scale piped water schemes, hand pump tube wells, protected dug wells and harvested rainwater,⁹ with protected wells most common in over half of households nationally.¹ Water stressed populations are periodically supplied by bowser by the National Water Supply and Drainage Board (NWSDB) in cooperation with local authorities, NGOs and International NGOs (INGOs).¹⁰

Over a thousand schools around the country have no toilet or handwashing facilities,¹¹ affecting an estimated million children, while half the school facilities currently listed as available are believed to be inaccessible to children for a variety of reasons.¹² Sanitation facilities in other public places represent another needs gap, with inadequate maintenance by local authorities.¹³ A small number of paid toilets have been successful where introduced. The urban poor and slum dwellers regularly lack services, although recent clarification of their land tenure opens a path to legal provision of water and sanitation.¹⁴ However, many live on low-lying lands that are often determined to be too costly to service with conventional sewerage.²⁴

Table 1 shows a ‘snapshot’ of health indicators connected with WASH. There has been an overall decline in the incidence of water borne diseases over the last decade, although there are specific geographic localities with greater incidence, which are strongly correlated to water scarcity and/or contamination from lack of sanitation.²² In the north and east of the country, 80% of reported diseases are waterborne.⁷

Table 1: Summary health statistics

Infant mortality (deaths per 1000 births) ¹⁵	15
WASH-related DALYs (% of all DALYs) ¹⁶	2%
Total WASH related DALYs (Years) ¹⁶	100,815
Total WASH related deaths per year ¹⁷	2,512
WASH related proportion of deaths (%) ¹⁷	1%

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Finance trends

The WASH sector in Sri Lanka receives foreign donor aid from many agencies including ADB, World Bank, UN Agencies, International Federation of the Red Cross / Red Crescent Societies (IFRC) and the governments of China, Japan, Denmark, Sweden, Germany, Austria, Netherlands, and Spain, among others.^{2,18} The Ministry of Finance and Planning reports US\$623M undisbursed foreign financing available at year-end 2009 for water supply and sanitation over the next 2-5 years.¹⁸ In 2009, US\$172M was allocated to the Ministry of Water Supply and Drainage and reported in the NWSDB’s accounts.² Funds allocated by treasury to other agencies may have WASH components, such as a separate US\$23M reported by NWSDB in 2009 for rehabilitation of tsunami-affected water infrastructure. The NWSDB reports IFRC and ADB as the biggest donors, however it is likely there is significant other WASH funding that is not captured here if funding does not flow directly through NWSDB. The amount of Chinese WASH aid is not quantified by NWSDB but is likely to be significant since Chinese aid

forms over half the aid received nationally.¹⁸ UNICEF also spent US\$7.78M and US\$9.59M respectively during 2009 and 2010 on WASH¹⁰ (which possibly includes approximately US\$2.6M from AusAID for schools WASH programs¹¹), a part of which is captured in the NWSDB figures. The funds spent on WASH by NGOs are not captured in the published figures.

Capital fund utilisation by the NWSDB was 69% in 2009, down from 87% the previous year. The lower utilisation was caused by delays in disbursement of local funds by Treasury, the domestic co-funding conditions of donor aid, and consequent procurement delays.² Of the foreign funds utilised during 2010 by NWSDB, the amount spent on water supply projects was almost seven times the amount spent on sewerage projects.⁴

Sector governance

The NWSDB is responsible for water supply and sanitation nationally, under the Ministry of Water Supply and Drainage that is the policy-making agency for the sector. The national policy for water supply and sanitation, current since 2002, is undergoing revision along with supporting policies (rural WS&S, tariff policy etc.), into separate policies for drinking water and sanitation.¹⁹ The new Sanitation Policy, which incorporates hygiene behaviour change in all sanitation programs, was launched in 2011 in conjunction with the SACOSAN IV conference held in Colombo.¹⁴

Reform of the water sector since the early 2000s has sought outcomes including cost recovery through tariff policy, transference of small rural schemes to community based organisations (CBOs), and facilitation of private sector participation.²⁰ Although many of the reforms did not take place, ADB has supported institutional strengthening of the NWSDB towards enabling these outcomes.^{2,20}

Subsector governance

Although the terms urban, peri-urban and rural are loosely defined in most of the literature consulted, one definition of a rural area is a *Grama Niladhari* Division (smallest administrative division in the administrative structure of provinces) having a population below 6000.²¹

Urban water supply and sanitation

As noted above, the NWSDB is the implementing agency responsible for urban water supply under the Ministry of Water Supply and Drainage. The Act by which the NWSDB was created empowered it to take over several major urban water supply schemes operated by some local governments.⁴ Water tariffs are designed to gradually recover all recurrent operating costs.²

The NWSDB's Annual Report notes a range of programs and initiatives for building staff capacity as well as an institutional strengthening program funded by an ADB grant, which include internal performance monitoring, provincial business planning and asset management planning amongst others.² In addition to quality assurance by the NWSDB, the Ministry of Health as the regulatory authority conducts water quality tests of the samples collected by the Public Health Inspectors.¹⁰

Sanitation coverage data is an assessment of accessible toilets but not of the condition of the sanitation system as a whole. As with water supply, significant improvements have been made, but the data conceals a dysfunctional state of urban sanitation. Piped sewerage is available to 2.5% of the population, mainly in Colombo where the 100+ years old sewer network is in a serious state of disrepair, causing sewer overflows and health and environmental consequences in wet weather.²² Untreated sewage is disposed of by ocean outfall.

The remaining urban population with access to sanitation use onsite septic tank systems – often where urban densities are too high, soil percolation is poor or the groundwater table is high. Poorly performing onsite systems with polluting seepage into surface and groundwater are common in Colombo suburbs and provincial urban centres.²³ Development aid is used to extend or build new sewer networks in peri-urban Colombo and secondary cities as a solution to failing septic tanks, or to repair sewer pumping stations² – projects that deliver tangible short-term results – but long term maintenance, repair and replacement of piped sewerage systems remain a significant challenge.²⁴ Piped water is planned for other urban areas that depend on groundwater, such as urban centres in the north and east where limestone and sand aquifers have been particularly vulnerable to pollution from poorly designed or operating onsite systems.²³ Removal and safe disposal of sludge from onsite systems is a major problem nearly everywhere.²³

Although the NWSDB and Ministry of Water Supply and Drainage are deemed responsible for urban sanitation, the NWSDB defines its role as ‘facilitating the provision of sanitation’ as against ‘providing safe drinking water’ nationally.⁴ In reality the NWSDB is responsible primarily for piped sewerage systems, managing operations of the Greater Colombo sewerage scheme including several smaller decentralised schemes serving housing estates and government institutions, and developing new sewerage schemes for problem areas in other cities.²

On-site systems that serve the majority of urban and peri-urban populations are required to be constructed under local government regulations. The institutional arrangements are similar to those in most other parts of the world, which means arrangements to ensure adequate maintenance and management of these systems are weak, with households left to their own devices with little information or interest, resulting in high failure rates.²⁴ Enhancing institutional capacity of local authorities (urban councils, municipal councils, and district councils or *Pradeshiya Sabha*) to regulate, monitor, and ensure adequate management of onsite systems is an urgent need in the sanitation sector.²³

Rural water supply and sanitation

Rural Water Supply and Sanitation Division (RWSSD) of the Ministry Of Water Supply and Drainage is named as the national agency responsible for rural water supply and sanitation sector development.¹⁹ Its primary responsibility is for the Community Water Supply & Sanitation Project (CWSSP), a large program funded by the World Bank and other donors.¹⁹ The NWSDB implemented a large ADB-funded rural WASH project from 1998-2007²⁵ and continues to take responsibility and oversight for rural WASH. In addition to the Ministry Of Water Supply and Drainage, other agencies that play a role in rural WASH are the Ministry of Health, Ministry of Local Government, and Ministry of Urban Development, as well as local and international NGOs and private sector institutions.^{4,13}

While the situation with rural sanitation is more positive, there remain particular regions and communities that lack sanitation, including recently resettled internally displaced persons in the North and East, plantation sector workers, fishing communities in the coastal belt, and the Southern district of Monaragala.¹⁴ There is also anecdotal evidence that toilets that count as having access to sanitation may not actually be used.¹²

Decentralised arrangements for rural water and sanitation have *Rural Water Supply and Sanitation (RWSS) Units* established at the provincial level, with *RWSS Cells* for coordination of projects at district or *Pradeshiya Sabha* level.¹³ Successes with ADB and World Bank funded projects with community-based management of rural water and sanitation in Sri Lanka^{25,26} are reported as ‘best practice’, and replication of the model is part of the current policy for rural water services.¹⁹ The systems are operated and maintained by *Grama Niladhari* administrative level community based organisations (CBOs), who in some cases manage revolving loan funds to enable latrine construction.^{13,14} There are, however, concerns about the long-term sustainability of the model that relies

completely on community volunteers to hold office in CBOs, and can exclude serving the poorest in the community who are unable to pay their share.²⁴ Many of the projects are experiencing difficulties, such as social and managerial problems, lack of technical skills, increasing gaps between costs and revenues, and water quantity and quality issues.²⁷ A growing number of *Rural Water Supply Units* are being established by the NWSDB to better support community operated water and sanitation systems, with UNICEF support for capacity building for these Units.² However investment in reviewing the deficiencies and building government capacity to strengthen the model is needed.

A Rainwater Harvesting Policy approved in 2007 guides the greater uptake of rainwater as a drinking water source and pilot projects for rain water harvesting have been implemented by various agencies.¹³ The institutional arrangements for rural sanitation are incorporated within rural water under the RWSS arrangements. A specific Draft Policy for Rural Sanitation is mentioned in the 2008 SACOSAN country report,¹³ however, it is unclear whether this has been absorbed into the National Sanitation Policy also mentioned in the 2011 SACOSAN country report. Ecosan approaches have been approved by the Ministry of Health, and given broad support from government and non-government stakeholders who have agreed to promote this as a safe sanitation option.¹³

Health and hygiene

The recognition of the importance of hygiene is evident in the new Sanitation Policy (2011), which incorporates hygiene behaviour change in all sanitation programs.¹⁴ The Public Health Division of the Ministry of Health (MoH) takes the sanitation and hygiene messages to the public, providing training to family health workers and public health inspectors.¹⁴ In addition the MoH's Health Education Bureau is engaged in promoting school hygiene programs, while hygiene is also part of the school curriculum.¹³

Climate change and water resources

Higher mean temperatures and decreased rainfall have been observed over several decades.²⁸ Although most climate change projections predict continuing rising temperatures, less predictability exists for rainfall.²⁸ With only 2ML per person per year, Sri Lanka rates poorly in terms of freshwater availability (Table 2). Many projections include exacerbation of water stresses in the dry zone and food insecurity.²⁸ Economic regions that depend on primary agriculture are most vulnerable to climate change since they tend to have less socioeconomic assets and corresponding adaptive capacity.²⁸ At the same time, there could be higher rainfall in the wet zone, requiring enhanced stormwater management in the highly populated west of the country.²²

The National Climate Change Adaptation Strategy, facilitated by ADB, will seek to improve poor catchment and water resources management practices, water efficiency and development of alternative sources including rainwater, as well as improved surveillance and monitoring of climate impacts on water and health.²⁹ In the last decade, some reservoirs originally intended for irrigation have become the source of new urban water supply schemes, for coastal urban areas in the north and east in particular, with measures to minimise conflicts such as obtaining agreement from prior water users (farmers) and increasing storage capacity.²³

Table 2: Status of water resources and vulnerability

Renewable water (ML/population) ³⁰	2
Overall Climate Vulnerability factor 2010 ³¹ (on scale of <i>Acute, Sever, High, Moderate, Low</i>)	Moderate
Overall Climate Vulnerability Factor 2030 ³¹ (on scale of <i>Acute, Severe, High, Moderate, Low</i>)	Moderate
Environmental Vulnerability Status ³² (on scale of <i>Extremely vulnerable, Highly vulnerable, Vulnerable, At risk, Resilient</i>)	Highly vulnerable

Donor environment

In addition to the multilateral and bilateral agencies contributing to the WASH sector, there are a large number of NGOs especially active in rural WASH. All NGOs are required to register with the National Secretariat for NGOs whose aims are to monitor and coordinate activities.³³ A National Coordination Group of Water, Sanitation and Drainage exists, with participants from the Ministry of Water Supply and Drainage, NGOs, United Nations agencies, development banks, bilateral cooperation agencies and universities.³⁴ The group has primarily been responsive to humanitarian emergencies, with an active Water and Sanitation Emergency Task Force.³⁵ Separately, there has been coordination around specific events such as the International Year of Sanitation.¹³ There is, however, no coordination for transitioning from emergency to longer term developmental WASH.¹⁰

Sector monitoring

Sector indicators are monitored at different levels. The NWSDB monitors a range of institutional performance indicators reported in its Annual Report, including service connections, complaints, budget and business processes etc.² The health sector gathers extensive data to monitor and control health issues, but due to inconsistent administrative area boundaries relative to other sectors, cross sectoral analysis is difficult.²⁹ While several agencies including NWSDB and MoH conduct surveillance and monitoring of water quality, effectiveness could be improved through more systematic processes, better coordination and data sharing.²⁹ While arrangements for monitoring water supply are being strengthened, performance monitoring of onsite sanitation systems remains a serious gap that needs to be filled.

The importance of improved monitoring is acknowledged and being planned for – such as a broad water quality surveillance program incorporated within a joint MoH and Ministry of Water Supply and Drainage *Water Safety Plan*,²² and the National Climate Change Adaptation Strategy's prioritisation of improved monitoring and data sharing across sectors.²⁹ UNICEF is supporting the NWSDB to establish and maintain water and sanitation data.¹⁰

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