

Topical Paper

Experience with Donor Coordination

The Case of Water Supply and Sanitation in Sri Lanka



Independent
Evaluation **ADB**



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Experience with Donor Coordination: The Case of Water Supply and Sanitation in Sri Lanka

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Notes

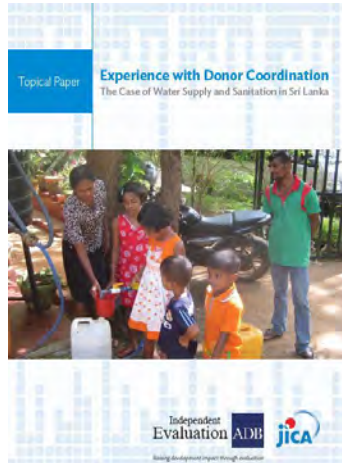
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This topical paper forms part of a joint case study on Sri Lanka's water supply and sanitation sector, and is linked to the joint case study report *"Toward Sustainable Water and Sanitation Services in Sri Lanka: Beyond Sustainable Development Goals to Supporting the National Economic Vision"* prepared jointly by the World Bank Group's Independent Evaluation Group, the Independent Evaluation Department of the Asian Development Bank, and the Evaluation Department of the Japan International Cooperation Agency.

This report is part of the joint case study report series on Sri Lanka's water supply and sanitation sector prepared by the Independent Evaluation Department of the Asian Development Bank, the Independent Evaluation Group of the World Bank Group, and the evaluation department of Japan International Cooperation Agency.



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Towards Sustainable Water and Sanitation Services in Sri Lanka: Beyond Sustainable Development Goals to Supporting the National Economic Vision (see Appendix 4 Linked Document)

Abbreviations

ADB	–	Asian Development Bank
AFD	–	Agence Française de Développement
CAS	–	country assistance strategy of World Bank Group
CBO	–	community-based organization
CKDu	–	chronic kidney disease of unknown etiology
CMC	–	Colombo Municipal Council
CPS	–	country partnership strategy of the Asian Development Bank
IED	–	Independent Evaluation Department of the Asian Development Bank
IEG	–	Independent Evaluation Group of the World Bank Group
JICA	–	Japan International Cooperation Agency
MCPWS	–	Ministry of City Planning and Water Supply
MDG	–	Millennium Development Goal
MFF	–	multitranches financing facility
NRW	–	nonrevenue water
NGO	–	nongovernment organization
NWSDB	–	National Water Supply and Drainage Board
O&M	–	operation and maintenance
PPP	–	public-private partnership
PUC	–	Public Utilities Commission
RSC	–	regional support center of the National Water Supply and Drainage Board
SDG	–	sustainable development goal
TA	–	technical assistance
UNICEF	–	United Nations Children’s Fund
WASH	–	water sanitation and hygiene
WATSAN	–	National Water and Sanitation
WBG	–	World Bank Group
WHO	–	World Health Organization
WSS	–	water supply and sanitation
WTP	–	water treatment plant
WWTP	–	wastewater treatment plant

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Acknowledgments

This topical paper forms part of the joint case study report series on Sri Lanka's water supply and sanitation sector, which has been the culmination of significant investments in time and collaboration among the Independent Evaluation Department (IED) of the Asian Development Bank (ADB), the Independent Evaluation Group (IEG) of the World Bank Group, and the evaluation department of Japan International Cooperation Agency (JICA). What started as an initial proposal for collaboration and knowledge sharing initiated by IED developed into a joint case study of agency work in the water and sanitation sector in Sri Lanka, building on previous sector evaluation findings and experiences from projects and programs implemented by each development partner over the past decade. This joint case study also represents the first collaboration undertaken between the three agencies focused on identifying common lessons to improve the design of projects in Sri Lanka's water supply and sanitation sector.

The findings were based on a joint evaluation mission to Sri Lanka during 22 August to 3 September 2016 consisting of officers from IED, IEG and JICA. The team members are: Au Shion Yee, evaluation specialist and team leader, Independent Evaluation Department, ADB, Manila; Soko Matsumoto, evaluation officer, Evaluation Department, JICA, Tokyo; Eriko Yamashita, evaluation officer, Evaluation Department, JICA, Tokyo; Tatsuya Asami, country officer, South Asia Department, JICA, Tokyo; Jonathan Cook, consultant, Sydney; Lucille Ocenar, evaluation officer, Independent Evaluation Department, ADB, Manila; and Christine Grace Marvilla, evaluation assistant, Independent Evaluation Department, ADB, Manila. The team appreciates the collaboration of Ramachandra Jammi and Katsumasa Hamaguchi of IEG; and Sri Lanka-based consultants Samantha Wijesundera and Nilakshi De Silva for their support during the joint mission. The team also gratefully acknowledges comments and peer review from Jingmin Huang, principal urban development specialist, and Ron Slangen, senior urban development specialist, of ADB's South Asia Urban and Water Division, Kamal Dahanayake, senior project officer, in ADB's Sri Lanka Resident Mission, and Thilina Wijetunge of the National Water Supply and Drainage Board of Sri Lanka, which strengthened the findings and conclusions of the report.

This report is linked to the joint case study report: "Toward Sustainable Water and Sanitation Services in Sri Lanka: Beyond Sustainable Development Goals to Supporting the National Economic Vision" prepared by IEG, IED, and JICA after the joint mission in September 2016.

The team is grateful to the officers from ADB's Sri Lanka Resident Mission, JICA's Sri Lanka office, and the World Bank's Sri Lanka office who assisted the joint mission by providing administrative and field-based support, organizing fieldwork logistics, and organizing meetings with range of project stakeholders and government officials.

This report was prepared under the overall direction of Vinod Thomas (Director General, IED, until August 2016), Marvin Taylor-Dormond (Director General, IED, from October 2016), Walter Kolkma (Director, IED Thematic and Country Division), and Junko Takahashi (Director, JICA Evaluation Division 1, Evaluation Department).

Executive Summary

Sri Lanka has made significant achievements in the water and sanitation sector, and is one of only three South Asian countries to have met both its water and sanitation Millennium Development Goal (MDG) targets. The Asian Development Bank (ADB), Japan International Cooperation Agency (JICA), and the World Bank Group (WBG) are the major development partners supporting the sector, which remains a priority area for the three agencies as reflected in its share of assistance in their lending over the past decade.

This joint review of Sri Lanka's water supply and sanitation (WSS) sector examined the sector's development journey and outlined information and findings, drawing on experience gained over the past decade from performance evaluations and project interventions. It also forms part of a growing body of knowledge that ADB, JICA, and WBG continue to develop through project and program evaluations undertaken by their evaluation departments to assess the impact of project and program investments on national sector development outcomes.

In addition to providing an opportunity to collaborate and share knowledge on a single country and sector as part of a performance evaluation program by each development partner, the review assessed the performance of sector interventions through the lens of donor coordination. All support provided by ADB, JICA, and WBG for the delivery of water and sanitation services in Sri Lanka spanning the 10-year period, 2007–2016, was covered.

The findings are consistent with the recommendations of recent sector evaluations. Although there has been impressive progress in improving water and sanitation services, there remains a need for supporting ongoing efforts on policy and

institutional reforms, particularly with respect to introducing independent regulation and attracting private sector participation in service provision. Strengthening coordination mechanisms between development partners and with the government can greatly enhance the prospects of achieving these objectives.

Lack of coordination between government agencies, especially between water agencies and other sector agencies including the Road Development Authority presents significant challenges to optimizing sector development. Water supply and sewerage system development requires access to land and water, and negotiation with other ministries and agencies. This often requires considerable time and resources. Our report argues that adopting formal coordination mechanisms between development partners and within the government itself will assist in infrastructure planning activities and in integrating the work of all concerned government agencies.

Coordinating the design and implementation of development partner sector support programs through formal arrangements provides a common platform to share knowledge and support a government's policy reforms. Support programs should not attempt to enforce their own agendas if these are different from those of the government; rather they should support rational and practical government objectives. Coordination between development partners can also improve the efficiency and effectiveness of programs, for example, through the adoption of common technical designs and procurement procedures for projects and by sharing knowledge and information on current and planned projects.

While a National Water and Sanitation (WATSAN) Coordination Committee has been established by the Ministry of City Planning and Water Supply (MCPWS) to bring a range of stakeholders together on a bimonthly basis, no formal coordination mechanism is currently in place between the development partners. A review of the WATSAN Coordination Committee meeting attendance records since 2014 indicates that the meetings have rarely been attended by staff members.

Although development partner coordination has been reasonably good, even after the end of formal development partner working group meetings in 2015, this review finds merit in reestablishing a formal development partner WSS working group. This would enable all donors to share information about their programs and discuss findings from various projects in more organized manner. The group would complement the WATSAN Coordination Committee's bimonthly meetings, possibly during alternate months by providing a forum for determining the types of sector level interventions or programs that are feasible for achieving sector development outcomes. In contrast to the WATSAN Coordination Committee meetings, such a working group can foster more focused discussion between development partners on sector-specific issues. Importantly, this provides an opportunity for donors to develop consistent, mutually acceptable approaches and procedures, which could be communicated to the government.

The sector achievements realized to date provide Sri Lanka with a sound platform to progressively move toward achieving its water and sanitation Sustainable Development Goals. However, the sector remains highly politicized. The government must pursue reforms while there is the support from senior leadership to do so. Importantly, development partners must collectively work with the government to encourage institutional and policy reforms by identifying and supporting local champions in key sector agencies and recognizing that sector reforms can take

time. Recent history suggests that the window of opportunity for implementing these types of reforms does not remain open for long. Formalizing and strengthening coordination mechanisms between development partners and with the government can provide additional leverage to enhance this effort.

This report closes with a proposed preliminary WSS sector development roadmap for consideration by the government. It was informed by the government and stakeholder consultation at the joint mission workshop.

Introduction

A. Purpose of the Review

1. The 2005 Paris Declaration on Aid Effectiveness emphasized the ownership of countries for setting their own strategies for development, alignment of donors' strategies with the country's objectives, harmonization of donor procedures and information sharing, focus on development results, and mutual accountability for development results. These principles were reiterated by the Accra Agenda for Action in 2008, which stressed capacity development to build the ability of countries to manage their own future.

2. Donor coordination has been the subject of research by development organizations and their evaluation departments as part of larger sector or country studies. There have also been many studies undertaken by academic institutions, based largely on secondary data. While these studies offer valuable insights, they are not designed to provide a comprehensive and nuanced understanding of the breadth of issues relating to donor coordination, even in the context of a single country. A recent publication¹ provides useful analysis of research on donor coordination, and notes several limitations faced by various studies in considering the sectoral dimension of donor coordination as well as desirable changes in the degree of donor coordination over time.

3. This review raises awareness regarding the importance of improving coordination by drawing sector-specific lessons that can assist development partners, in the context of the water supply and sanitation (WSS) sector in Sri Lanka, to work together more effectively to support the government's plans for achieving development outcomes. The findings add value for both the country and its development partners by analyzing the current situation and outlining how development partners can work collectively to improve the process for achieving outcomes and impacts in a sector where the problems are complex and difficult to resolve without effective coordination by all actors.

4. This report forms part of a joint case study on Sri Lanka's WSS sector, and is linked to the joint case study report "Toward Sustainable Water and Sanitation Services in Sri Lanka: Beyond Sustainable Development Goals to Supporting the National Economic Vision" (Appendix 4) prepared jointly by the World Bank Group's (WBG) Independent Evaluation Group, the Independent Evaluation Department (IED) of the Asian Development Bank (ADB), and the Evaluation Department of the Japan International Cooperation Agency (JICA).

B. Objective and Methodology

5. The objective of the joint case study to which this review contributes is to assess and draw lessons from selected project experiences of ADB, JICA, and WBG in supporting Sri Lanka as it moves toward its goals for sustainable and equitable provision of water and sanitation services to its people. The case study looks at the collective experience of the three institutions

¹ P. Nunnenkamp et. al. 2015. *Do Aid Donors Specialize and Coordinate Within Recipient Countries? The Case of Malawi*. AidData Working Paper 10. Germany. http://aiddata.org/sites/default/files/wps10_donor_coordination_malawi.pdf.

over the 10-year period, 2007–2016, and alignment with the country's sector and larger economic goals.

6. This review provides a brief overview of WSS sector achievements and challenges in Sri Lanka and then focuses on coordination mechanisms and processes, both between the development partners, between development partners and the government, and within sections of the government.

7. **Overarching Questions**

- (i) What is the status of the sector and what have been the key achievements and challenges?
- (ii) What is the strategy and focus of sector support provided by ADB, JICA, and WBG in the WSS sector in Sri Lanka? What is their contribution in terms of total project lending and technical assistance?
- (iii) How has sector support been coordinated (in terms of sector strategies, project locations, issues addressed) between the development partners and with the government to align with national sector development goals?
- (iv) How have coordinating mechanisms evolved over the period, including those within the government itself?
- (v) What are the lessons and suggestions for improving the effectiveness of the development partners' work together, and with the government for achieving sector outcomes?

8. The review covers all support provided by ADB, JICA, and WBG for the delivery of WSS services in Sri Lanka over the 10-year period, 2007–2016. The analysis covers project support to urban and rural water supply, sanitation, wastewater collection and conveyance, and wastewater treatment and disposal.

9. The review applies a conceptual model² for donor coordination and maps selected examples of positive and negative project experiences to assess the level of maturity of coordination in the sector. This provides a basis for developing a set of coordination principles, which can be used as an indicator of the health of coordination arrangements in a given country or sector context, both between development partners and with the government.

10. The team undertook a joint mission to Sri Lanka from 22 August–3 September 2016, and met with officials from central government departments and agencies as well as from the provincial and local governments that are involved in or interface with water supply and sanitation functions. The team also conducted interviews with Sri Lanka-based project officers and consultants working on WSS projects and programs supported by the three development partners. In addition to beneficiary interviews in 10 locations in 6 districts, the team also conducted focus group discussions in 7 locations in 2 districts of Sri Lanka to obtain feedback from a range of beneficiaries and leaders of community-based organizations (CBOs). A summary report on the findings from the focus group discussions is included as an appendix to the joint case study report (para. 4). On 2 September 2016, JICA hosted a workshop on behalf of the joint mission, which included a wide range of government officials and representatives from other development partners to discuss the issues and preliminary findings raised by the joint case study.

² The conceptual model was initially developed and applied in the context of reviewing development cooperation in Tajikistan, but is equally applicable to the case of water supply and sanitation (WSS) sector in Sri Lanka. The conceptual model is introduced in Chapter 4.

Figure 1: Focus Group Discussions



The joint case review team conducted focus group discussions with community members (photo taken in Mutur, south of Trincomalee, Sri Lanka)

Source: Joint review team.

11. This review is not an evaluation. It is intended to serve as a knowledge product, to enable the three institutions to collaborate and focus on key sector lessons and experiences rather than rating the performance of individual projects. The need for such joint review was strongly supported by government stakeholders during the joint fieldwork mission workshop.

C. Importance of the Water and Sanitation Sector in Development

12. Water supply and sanitation is a priority area in development. Not only is providing access to adequate, reliable, affordable, and safe water and sanitation services fundamental to human development, it is also critical to other development objectives, such as health, nutrition, gender equality, and education. Globally, there are an estimated 663 million people without access to improved sources of water, and 2.4 billion people without access to improved sanitation. The majority are in Sub-Saharan Africa and South Asia.³ Bridging the gap in access to improved water and sanitation is a core concern of the 2030 Agenda for Sustainable Development; specifically, Sustainable Development Goal 6 (SDG 6) seeks “to ensure availability of sustainable management of water and sanitation for all.”⁴

13. Water supply and sanitation are given high priority by ADB, JICA, and WBG as reflected in the share of lending assistance to the sector in recent years. WBG has committed approximately \$38 billion⁵ for WSS during FY2007–2016, which is 7.4% of all WBG commitments during that period. For ADB, water became a core area of operation with the establishment of its Water Financing Program (WFP) in 2006. Under the first phase of this program, investments in the water sector increased from roughly \$891 million in FY2006 to over \$2 billion annually, with an annual target of 10% of total water investments from 2010 to 2020.⁶ JICA committed roughly

³ UNICEF and World Health Organization. 2015. Progress on Sanitation and Drinking Water – 2015 Update and MDG Assessment. Geneva.

⁴ United Nations. 2015. *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York. <https://sustainabledevelopment.un.org/post2015/transformingourworld>

⁵ World Bank. 2017. *Water Overview*. Washington, D.C. <http://www.worldbank.org/en/topic/water/overview>.

⁶ The first phase of the program covered 2006–2010. The target investments for WFP will be sustained at \$2.0 billion–\$2.5 billion annually for the second phase (2010–2020) or a total of \$20 billion–\$25 billion by end of 2020. <http://www.adb.org/sectors/water/about-water-for-all>.

\$12 billion for WSS over the 2006–2015 period, representing 14% of all JICA commitments during that time.

D. Achievements in Water and Sanitation

14. Sri Lanka offers a unique opportunity to learn from a positive experience in WSS in challenging conditions. The country has achieved strong results in the sector, despite relatively low per capita income, a backdrop of civil conflict that lasted from 1983 to 2009, and a devastating tsunami in 2004. In 1990, about 68% of the population was estimated to have access to safe drinking water, and/or improved sanitation. Between 1990 and 2015, poverty fell from 26% to under 7%. At the same time, access to safe drinking water increased to 90% and access to improved sanitation to 87%. By 2015, Sri Lanka was deemed to have met most of its Millennium Development Goals (MDGs) including those related to WSS.

15. Sri Lanka has outperformed all of its South Asian neighbors apart from Maldives in relation to WSS development, highlighted in a recent ADB study,⁷ which developed a number of indexes of national performance in the WSS sector including a household water security index—a composite of 3 sub-indicators: (i) access to piped water supply (%); (ii) access to improved sanitation (%); and (iii) hygiene (number of age-standardized disability-adjusted life years [DALYs] per 100,000 people for the incidence of diarrhea).

16. While not a precise measure, because for example, a majority of Sri Lanka’s population has access to an improved water source though no access to piped water,⁸ Table 1 indicates the country’s strong performance. It has a high rate of access to improved sanitation (though a low level of piped sewerage) and a diarrhea DALY index of less than half the next best performing large South Asian country (Bangladesh). Its overall key dimension index score is double that of Bhutan and Bangladesh though marginally behind Maldives. Nevertheless, a continuing concern is that about 10% to 15% of the residents are still unable to access a safe water source within 200 meters of their residence.⁹

Table 1: National Water Supply and Sanitation Sector Performance Index Comparison

Country	Piped water access		Sanitation access		Diarrhea DALY		KDI score		KDI
	%	Index	%	Index	No.	Index	1–15	1–20	Index
Bangladesh	12	1	60	1	759	3	5	6.7	1
Bhutan	58	1	50	1	1,077	3	5	6.7	1
India	28	1	39	1	2,407	1	3	4.0	1
Maldives	45	1	98	5	179	5	11	14.7	3
Nepal	23	1	44	1	1,221	2	4	5.3	1
Pakistan	38	1	62	2	2,717	1	4	5.3	1
Sri Lanka	34	1	95	5	353	4	10	13.3	3

DALY = disability-adjusted life year; KDI = key dimension index.

Note: Indexes scaled from 1 (low) to 5 (high).

Source: ADB. 2016. *Asian Water Development Outlook 2016: Strengthening Water Security in Asia and the Pacific*. Manila.

17. Sanitation infrastructure has also improved, and there has been a change in the population’s perception and behavior regarding safe sanitation practices. According to ADB, “it is no longer acceptable to randomly construct a set of toilets at schools; rather, parents expect that combined water, sanitation, and hygiene interventions will be installed using resources allocated on the basis of number of students that need to be served” (footnote 9).

⁷ ADB. 2016. *Asian Water Development Outlook 2016: Strengthening Water Security in Asia and the Pacific*. Manila.

⁸ In 2015, 73% of Sri Lanka’s urban population had water piped to their premises compared to 25% for rural dwellers.

⁹ Fan, M. 2015. Sri Lanka’s Water Supply and Sanitation Sector: Achievements and a Way Forward. *ADB South Asia Working Paper Series*. No. 35. Manila: Asian Development Bank.

Country and Sector Context

A. Country Information

1. Population

18. The population of Sri Lanka as of mid-2015 was 21.0 million,¹⁰ of whom 17.0 million were classified as rural and 4.0 million as urban. The population of the capital, Colombo City was 2.4 million. National population is increasing at about 0.9% per year, slightly lower than the average growth of 1.1% over the past 20 years. Urban population has increased from 14.6% of the national population in 2001 to 18.3% in 2012, the year of the last census, suggesting a marginally higher rate of urban growth. However, between 2013 and 2015, Colombo's population grew from 2.3 million to 2.4 million, or by only 0.75% per year. The growth rate remains positive in most areas, but at a relatively low rate. The key implication for the WSS sector is the associated increase in water demand (e.g., from the industrial, agricultural, and domestic sectors) that has accompanied this growth, which places additional stress on existing surface and groundwater sources.

2. Climate change

19. Sri Lanka's climate is tropical and monsoonal, with two monsoon seasons, the southwest monsoon from May to September and the northeast monsoon from December to February. Rainfall is largely dictated by topography and varies greatly seasonally and between the west and east coasts and north and south of the island. Figure 2 shows the country's climatic zones, with the high rainfall zone in the southwest and arid zones in the northwest and southeast being notable.

20. Climate change is expected to have an increasingly significant impact on water resources and thus on water supply. Average annual rainfall has declined by almost 25% since 1951,¹¹ but has been accompanied by more intense rainfall events and longer dry periods in recent years. During the monsoon season, heavy rainfall has resulted in many cities becoming vulnerable to disaster risks leading to many deaths caused by flooding and landslides. Droughts and floods are likely to increase in frequency and intensity. Drought, in some cases combined with excess groundwater extraction, will exacerbate the decline in the water table (particularly in the dry zone) and salt water ingress (in coastal areas). These changes can have a substantial impact on water supply schemes, particularly those dependent on groundwater sources. For example, under the ADB-supported Jaffna and Kilinochchi Water Supply and Sanitation Project, a desalination plant is being constructed to provide supplementary water supply in Jaffna because of the unavailability of suitable surface water sources, and over-extraction and contamination of groundwater sources. Seawater intrusion into estuaries may also require greater protection of freshwater resources. This has been evident in the ADB-supported Water Resource Management Project, which included the construction of the Kelani River barrage to assist in securing

¹⁰ Government of Sri Lanka, Department of Census and Statistics. 2015. *Midyear Population Estimates by District and Sex, 2013–2015*. Colombo.

¹¹ Silva, A. Ministry of Environment and Natural Resources. Undated. *Climate Change and Sri Lanka*. Colombo.

Colombo's water supply. However, the project was cancelled following the failure of its policy-related components.¹²

21. During the 1970s and 1980s, large-scale projects dammed the Mahaweli Ganga and neighboring streams forming the basis for the Mahaweli irrigation system. The system's extension to the north, which is currently planned with ADB support, will assist in providing additional water supply, potentially to towns as far north as Jaffna. In common with other countries in the region, Sri Lanka is experiencing an increase in temperature, estimated by the Department of Meteorology to average 0.016° per year. The government is actively addressing climate change, and has established a Climate Change Secretariat within the Ministry of Mahaweli Development and Environment to mitigate its impact.¹³ A national climate change policy was approved in 2015. This was in part based on the National Climate Change Adaptation Strategy for Sri Lanka 2011–2016,¹⁴ prepared with ADB support in 2010.



3. Economy

22. Since the end of the civil war in 2009, economic growth has averaged 8.0%, placing Sri Lanka among the fastest growing countries in the world over the period and only marginally behind the People's Republic of China (8.5%). Rapid growth has contributed to a significant decline in poverty. Sri Lanka is now classified as a middle-income country, with nominal gross domestic product (GDP) of \$3,638 and purchasing power parity GDP of \$11,700 per person.¹⁵ Trade and manufacturing now dominate the economy with 24% and 18% of GDP, respectively, in 2015.¹⁶ Agriculture has declined to 10% of GDP from 18% in 1997 despite a 50% increase in production over the period. It is likely that increased wealth will translate into increased demand for water, with an income elasticity estimated at about 0.5. Income in Sri Lanka is relatively unequal, with a Gini ratio of roughly 46% (World Bank estimate, 2012), but inequality per se is not likely to have a significant impact on the change in demand for water.

¹² The project aimed to strengthen the government's capacity to manage its water resources in a sustainable, participatory, and transparent manner. It included capacity building to assist in establishing a National Water Resources Authority (NWRA) and strengthening existing agencies in the water sector. The establishment of the NWRA was not supported by the government, which led to the cancellation of the project.

¹³ Now integrated with the Ministry of Irrigation and Water Resources forming a "super ministry" under the Prime Minister's office.

¹⁴ Government of Sri Lanka, Ministry of Environment. 2010. *National Climate Change Adaptations Strategy for Sri Lanka, 2011 to 2016*. Colombo.

¹⁵ World Bank. 2016. *World Bank Development Indicators Database*. Washington, D.C.

¹⁶ ADB. 2016. *Key Indicators for Asia and the Pacific 2016*. Manila. <http://www.adb.org/publications/key-indicators-asia-and-pacific-2016>

B. Water Supply and Sanitation

1. Urban-Rural Trends

23. A key target under the current national development plan¹⁷ is to promote “rapid economic growth and a change in the structure of the economy to a modern, environmentally friendly, and well connected rural-urban economy that can create better-remunerated employment opportunities.” Since independence in 1948, much of the focus of development has been on the Western Province, which includes the city of Colombo. The civil war exacerbated this divide, both through the isolation of the areas controlled by the opposition forces of the Liberation Tigers of Tamil Eelam (LTTE),¹⁸ and the focus of the national budget on military spending.

24. Since the end of the war, the government has made major efforts to reduce this imbalance to support regional towns and the rural population. The public investment program (supported by various development partners) has included a focus on the improvement of services to these areas, including better road access, provision of electricity, and water supply.

2. Policy and regulatory framework

25. Improvement of water supply and sanitation is an important element of government policy. The 2002 National Poverty Reduction Strategy¹⁹ stated that “the provision of safe drinking water and adequate sewerage and sanitation systems, is frequently cited as the single highest social-service priority by poor households. In some districts over half of the rural population does not have access to safe drinking water.”

26. The national 10-year development policy framework (footnote 17) prepared in 2010 also outlined the importance of access to water supply and sanitation to support national economic development, noting:

“...access to water supply and sanitation is a prerequisite for achieving the desired economic success of the country. On the way to achieving the goal of an emerging economy status, rapid growth and expansion of economic activities both in urban and rural areas are expected. Availability of sustainable and efficient water supply and sanitation services, especially in townships of different levels, is vital to keep up the pace of development in a strategically driven economic environment in the country. A more than two-fold increase in per capita income will create a demand for improved water supply services in terms of quantity, quality, and reliability. Continued investment will ensure 100% access to safe water. Meanwhile, there will be a new demand for industrial water, which will be tackled through the recycling of wastewater and rain water.”

27. In part, this sector development objective was supported by the government’s target to achieve the MDGs, which was also strongly advocated by external donor agencies, including the three development partners involved in this review. In addition, following the end of the civil conflict in 2009, there was heightened awareness regarding the need for the development and

¹⁷ Government of Sri Lanka, Ministry of Finance and Planning. 2010. *Sri Lanka, The Emerging Wonder of Asia: Mahinda Chintana—Vision for the Future*. Colombo. pp. 3.

¹⁸ The LTTE or Tamil Tigers was a militant organization based in northern Sri Lanka. It waged a secessionist nationalist insurgency to create an independent state of Tamil Eelam in the north and east of Sri Lanka for Tamil people. This campaign resulted in a civil war that raged from 1983 until 2009.

¹⁹ Government of Sri Lanka. 2002. *Regaining Sri Lanka: Vision and Strategy for Accelerated Development; Part II—Connecting to Growth: Sri Lanka’s Poverty Reduction Strategy*. Colombo. pp. 78.

improvement of WSS facilities, especially for conflict-affected rural areas in the north and east of the country (footnote 9).

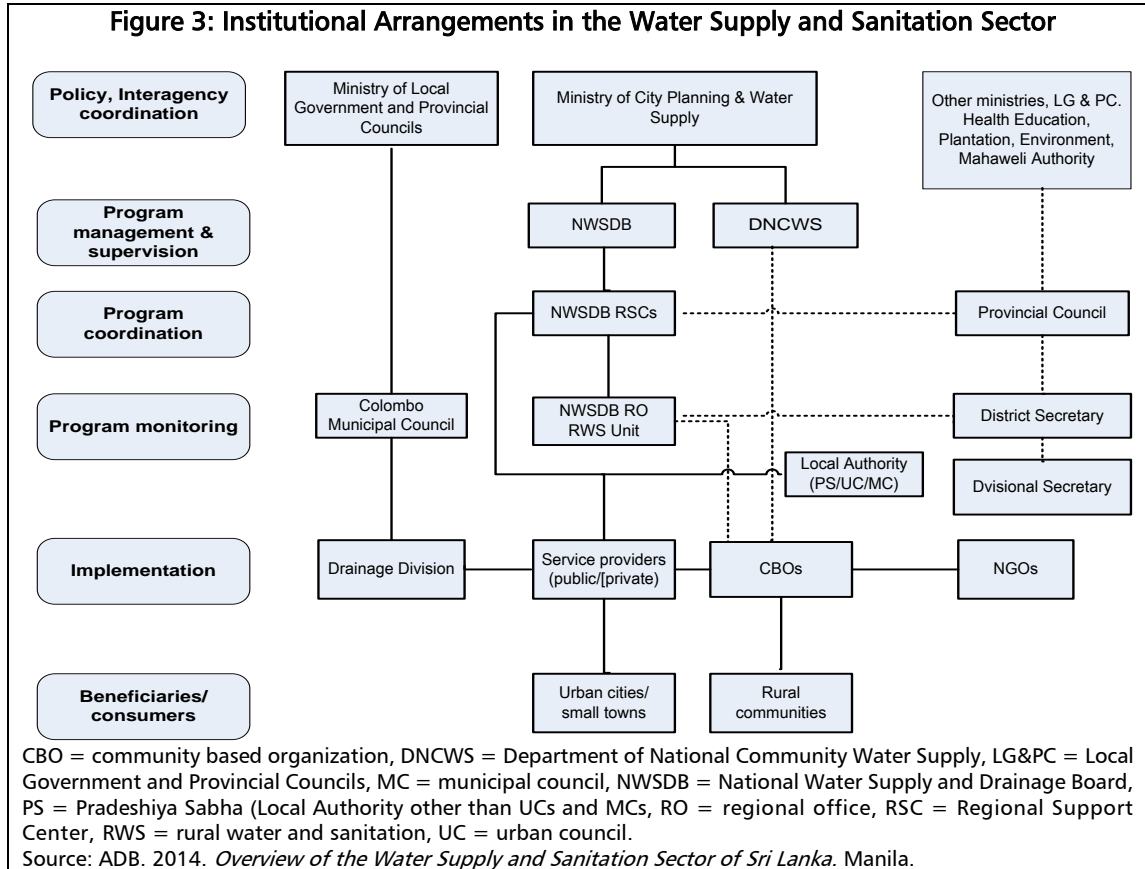
28. Although the objectives of national policies are sound, Sri Lanka has encountered challenges in bringing its overall policy environment to a level that is generally accepted internationally. With support from development partners over the past 25 years, the country has attempted to introduce such aspects as independent regulation of WSS, integrated water resources management, and legislative and institutional reform of the sector through a national water law.²⁰

29. The government has taken several steps to develop this sector, for example, establishing a national water sector apex body in 1996: the National Water Resources Council, supported by a fulltime Water Resources Secretariat. This was intended to be an interim arrangement, pending the establishment of a permanent agency in the National Water Resources Authority by an act of Parliament. However, this was not approved because of strong opposition from some elements of the government, and the apex body was never established. The government also established an independent regulator in the Public Utilities Commission (PUC) in 2002, but its activities have been limited to the power and petroleum sectors. Independent regulation of WSS has not yet been implemented as planned, but this has now been approved by the cabinet (May 2017) and is slated to commence in 2018 following legislative approval by the Parliament.

30. There are numerous government agencies—roughly 40—dealing with water in Sri Lanka, which poses considerable challenges for effective coordination. Figure 3 provides an overview of the institutional landscape of the WSS sector. With no central coordinating body with sufficient authority for overall stewardship, each agency has pursued its own mandate and interests. The different agencies act largely independently of each other causing distortions and inefficiencies.²¹ In the urban water sector, the National Water Supply and Drainage Board (NWSDB) operates and manages 331 water supply systems and 11 piped sewerage schemes across the country with staff of roughly 10,500 grouped into 11 Regional Support Centers (RSCs) that have substantial autonomy. It provides water to domestic and commercial consumers in many towns through its own pipe networks, and provides bulk water to municipalities, which sell it to consumers.

²⁰ Independent Evaluation Department. 2016. *Sri Lanka Country Assistance Program Evaluation, Water Supply and Other Municipal Infrastructure and Services Sector Program Assessment (Linked Document 3)*. Manila: ADB.

²¹ The 2016 ADB CAPE WSS sector program assessment (footnote 20) noted that (i) large water users allocate water to themselves, playing the role of both regulator and resource user; (ii) water required for environmental and social needs may not be protected since these users are not recognized in policy and no mechanisms exist to legally safeguard minimum in-stream flows or reservoir levels; (iii) the supply of water for existing uses is vulnerable where new water use continues to be allowed—the lack of control of water demand increases the risk of water shortages and reduces the value of downstream water-related development; (iv) water allocation is not flexible, with new users not supplied water by voluntary transfer of water from existing users. Hence, there is no incentive among existing users to improve water use efficiency and recognize the value of allocation; and (v) there is no planning system to prioritize water allocation by use.



C. Sector Challenges

31. While Sri Lanka's WSS sector has made notable progress, it continues to face several challenges. This section briefly outlines the key areas over the past decade that have posed significant challenges to the sector as identified in recent sector evaluations, and that have influenced donor and government coordination efforts:²²

- (i) **Policy development.** Many efforts have been made since 1990 to develop the policy environment, but progress has been limited in a number of key areas. It now needs to be brought up to date, probably including enactment of an overarching national water law, which adopts an integrated water resources management approach and clearly defines resource use priorities.
- (ii) **Tariffs.** Tariffs for water and sanitation are the responsibility of the service providers: NWSDB in the case of national water supply and sewerage (excluding Colombo City), and the Colombo Municipal Council (CMC) for sewerage in Colombo City. Lifeline tariffs have been set, which allow poor households to purchase water from urban networks at subsidized rates. In principle, this is highly desirable both as a pro-poor measure and for limiting consumption at higher use rates. However, the rates should be set at a level that primarily assist the poor²³ and do not subsidize middle- and high-income households. Lower volume tariffs are roughly one-third of the average in many developing countries,

²² These were identified in the 2016 ADB CAPE WSS sector program assessment (footnote 20), which provides a more detailed analysis of the key challenges facing the WSS sector in Sri Lanka.

²³ The official poverty line in Sri Lanka is Rs3,961/month (\$27 at the official exchange rate) in 2016. The proportion of the population with income below this level was estimated at 6.7% by the World Bank in 2012, and is presumably significantly less in 2016 after several years of rapid growth in the economy.

limiting the viability of water companies and eroding the incentive to manage demand (footnote 20).

- (iii) **Regulation.** ADB assisted the government in the establishment of the Public Utilities Commission in 2002, which was intended to serve as an independent regulator of the power, petroleum, and water sectors. The commission would be independent of the government and service providers, largely removing pricing and development planning from the political arena. Electricity is now fully regulated and petroleum partly, but the necessary legislation to enable it to regulate water (through the Water Services Reform Bill) was not passed at the time. However, approval has now been given (pending parliamentary approval) for the commission to act as the water regulator, with commencement expected in 2018. This is a positive development and should assist in promoting private sector investment, and may pave the way for local tariff setting.
- (iv) **Network expansion.** Most towns now have piped water supplies. However, there remains a need to expand and upgrade many networks, requiring substantial investment, which the current tariff structure cannot support. The investments required in sanitation are also far beyond the capacity of current service providers, as outlined in NWSDB's 2016–2020 corporate plan.²⁴ Private investment will be required if sector development objectives are to be met, highlighting the need for independent regulation to support and incentivize private sector development.
- (v) **Wastewater treatment.** While most Sri Lankan households now have access to improved sanitation, this mainly comprises septic tank systems or pit latrines. Septic tanks can work well if adequately designed, constructed, and managed. However, many systems do not meet these criteria, and are not well maintained or pumped out when necessary. The system is also not fully satisfactory for urban areas, where there is little space for overflow drainage trenches and where overflow may pollute streets or watercourses resulting in adverse environmental and public health impacts. Pollution of urban water courses because of poor septic tank design and/or management and disposal of waste is a serious issue in many areas. There is thus a need to construct sewerage networks and wastewater treatment plants (WWTPs) in urban centers. In urban areas without sewerage, septage plants for the treatment of septic tank pump-out material are needed.
- (vi) **Aging infrastructure.** The original Colombo wastewater network was developed in the early 20th century. Limited budget and inadequate maintenance over time has resulted in multiple operational problems and the need to rehabilitate the systems, as currently being undertaken with ADB and JICA support. Water supply infrastructure is also aging and approaching the end of its service life in many other areas, requiring rehabilitation if service levels are to be maintained.

²⁴ Government of Sri Lanka, National Water Supply and Drainage Board. 2016. *National Water Supply and Drainage Board Corporate Plan 2016–2020*. Colombo.

Figure 4: Travelling to collect safe drinking water supplies



For many communities in Sri Lanka, traveling long distances to collect safe drinking water supplies is a part of the daily routine.

Source: Joint review team.

- (vii) **Health.** The significant urban–rural disparities in the provision of piped water supply presents an ongoing challenge. Although major progress has been made in improving access to safe water in urban areas, much work is still required in rural areas, especially in the Northern and Eastern Provinces, where years of civil war has disrupted development.²⁵ For example, in Colombo, almost 91% of the population has access to piped water, which is double the national average and four times the proportion in Batticaloa. Wastewater collection is limited to Colombo City and a few other centers resulting in surface and groundwater pollution by effluent from septic tanks and pit toilets. Health shocks and chronic illness from contaminated drinking water has resulted in a high incidence of diarrhea and other waterborne diseases, particularly among children and the elderly, but this has dramatically improved over the past decade (footnote 20).
- (viii) **Chronic kidney disease of unknown etiology (CKDu).** This emerging disease is slowly progressive, irreversible, and asymptomatic until later stages. CKDu is most pronounced in Vavuniya and Anuradhapura districts, but 10 districts are affected. While CKDu afflicts less than 5% of the population in the affected districts, its rapid spread and non-responsiveness to treatment are matters of concern. It primarily affects people of low socioeconomic status, particularly those involved in farming or living in agricultural areas. Reverse osmosis (RO) plants have been installed in CKDu-affected regions, usually at the locations of CBO schemes, and are supported by the development partners and local organizations to supply safe drinking water.
- (ix) **Lagging regions and conflict affected areas.** The isolation of rural areas in the Northern Province following a long period of conflict and natural disasters has resulted in high rates of poverty in Mannar, Mullaitivu, and to a lesser degree in Kilinochchi and parts of Vavuniya. Conflict-affected rural areas have lagged in terms of development and access to services compared with urban areas, and are characterized by poverty and income inequality; and
- (x) **Equipment quality.** The quality of equipment has been a source of concern for several projects supported by development partners. Interviews with NWSDB

²⁵ World Bank. 2007. *Sri Lanka Poverty Assessment: Engendering Growth with Equity*. Washington D.C.

officers suggested that Sri Lanka appeared to have been used as a dumping ground for poor quality pipes, pumps, and fittings. An example cited was the delivery of \$2 million of substandard bulk pipes under the ADB-supported Dry Zone Urban Water and Sanitation Project, which was discovered during in-situ pressure testing and needed to be replaced, causing ongoing delay. Lack of adequate quality is partly a result of the procurement procedures required by individual development partners, which are not aligned with international best practices. During this review, NWSDB highlighted the need to review procurement procedures to streamline processes and place more emphasis on equipment quality over cost. However, procurement delays also occur on the government's side. For example, cabinet approval is required for all contracts exceeding \$3 million. Although this approval has been delegated to the Secretary of the Treasury, it takes time and can significantly delay project delivery timeframes.

32. Despite these challenges, and as indicated (Table 1), the WSS sector has witnessed remarkable achievements over the past decade (footnote 20). The following section examines the role of the three major development partners in the sector and explores their contribution in terms of the level and focus of sector support, and extent of coordination.

ADB, JICA, and WBG Contribution

33. During 2007–2016, the approved sector support to the WSS sector in Sri Lanka provided by ADB, JICA, and WBG is estimated at \$2.0 billion.²⁶ This compares with an average total annual investment in WSS in the country of about \$200 million during 2007–2011.²⁷ Hence, the three institutions represent a significant proportion of sector support and have played a prominent role in the development of the sector over the review period, covering project lending, technical assistance, and policy support. This section provides an overview of the sector strategies and investment program for ADB, JICA, and WBG over the review period. It provides a basis for assessing the extent of coordination among the development partners and how this has contributed to sector outcomes to date.

A. Sector Strategies

34. An overview of the strategic objectives and primary focus of sector support provided by ADB, JICA, and WBG to the Sri Lanka WSS sector over the review period is provided in Table 2:

Table 2: Overview of ADB, JICA, and WBG Sector Strategies (2007–2016)

	ADB	JICA	WBG
Strategic Objectives	<ul style="list-style-type: none"> Poverty reduction and reconstruction and development, supported by pillars with focus on social development, pro-poor economic growth, and good governance (CPS 2004–2008). Economic growth, social development, supported by pillars with focus on stronger investment climate and socially inclusive economic growth (CPS 2009–2011) 	<ul style="list-style-type: none"> Based on Sri Lanka’s basic principle for development, Japan supports the development of basics for promoting further development and stabilization of Sri Lanka’s steadily growing economy. Also, based on the history of the conflict and the present status of development, Japan’s assistance will focus on equality and fairness with special consideration for emerging regions, while paying attention to the vulnerability to disasters. The priority areas are (i) promotion of economic growth, (ii) development of emerging regions; and (iii) mitigation of vulnerabilities. 	<ul style="list-style-type: none"> Peace, growth, and equity, with a focus on conflict-affected northeastern region and for the poor (CAS 2003). Supporting growth and poverty reduction, addressing causes and consequences of conflict, and strengthening transparency and accountability (CAS 2008). Improving living standards and social inclusion, focusing on increasing quality of

²⁶ This reflects the net commitment for water supply and sanitation components. If projects that were approved prior to 2007 but are implemented during the study period are included, the total amount is estimated at \$2.3 billion.

²⁷ World Bank. 2014. *Operationalizing the “Mahinda Chintana” Vision for Water Supply and Sanitation*. Washington D.C.

	ADB	JICA	WBG
	<ul style="list-style-type: none"> Inclusive and sustainable economic growth, supported by pillars with focus on inclusive growth, catalyzing private investment and enhancing public investment effectiveness, and human resource and knowledge development (CPS 2012–2016). 		services, and expanding social inclusion and equitable access (CAS 2012).
Primary sector support	<ul style="list-style-type: none"> Urban WSS improvements in Colombo City and secondary towns. CBO rural water supply schemes. 	<ul style="list-style-type: none"> Improving water supply in urban areas such as metropolitan cities (Colombo and Kandy). Reducing nonrevenue water. Improving urban sanitation through strategic sewerage master planning. 	<ul style="list-style-type: none"> CBO rural water supply schemes.

ADB = Asian Development Bank, CAS = Country Assistance Strategy of World Bank Group, CPS = Country Partnership Strategy of ADB, CBO = community-based organization, JICA = Japan International Cooperation Agency, WBG = World Bank Group.

Sources: ADB. *Country Partnership Strategies 2004–2008, 2009–2011, 2012–2016*. Manila. JICA. 2012. *Country Analytical Work: Democratic Socialist Republic of Sri Lanka (October 2012) – Chapter 3: Life Environment*. Tokyo. World Bank Group. *Country Strategies 2003, 2008, and 2012*. Washington D.C.

B. Overview of Investment Programs

35. A detailed description of the investment programs of ADB, JICA, and the World Bank Group is provided in Appendixes 1, 2, and 3, respectively, including an evaluation of the issues found. This section provides only an overview. Out of the 25 districts in Sri Lanka, ADB, JICA, and WBG have worked in 22, with only Kurunegala, Galle, and Gampaha recording no investment activities from the three development partners during the review period.

36. **ADB sector portfolio.** ADB support to the sector consisted of loans, grants, and TA projects of roughly \$1 billion,²⁸ covering 14 of the 25 districts across 8 provinces (Appendix 1). To date, 5 loan and grant projects in the WSS sector have been closed with ADB support. Two were implemented in the late-1990s and early 2000s, targeting rehabilitation of existing water supply schemes as well as new construction for medium-sized secondary towns (with a population of 6,000–30,000). The third and fourth water supply projects focused on secondary and large towns as well as community-based rural water supply schemes. The ongoing projects also focus on large towns and cities concentrating on improving WSS services in dry zone towns and in the Greater Colombo area. The projects in conflict-affected areas around Jaffna and Kilinochchi have just been recently closed. In recent years, WSS projects took on added importance by providing improved access to safe drinking water particularly in CKDu-affected areas, which is a high priority for the government. In total, 10 WSS projects have been financed since the late-1990s, with projects either closed during the review period or ongoing as of mid-

²⁸ Includes capacity building and advisory technical assistance (TA), and multisector loans/grants with significant WSS components. The amount relates to net amount for WSS components of projects approved and/or implemented during 2007–2016. The net amount for WSS components of projects approved from 2007 is estimated at \$911 million.

2016. They include 3-tranche multitranches financing facility (MFF), the Greater Colombo Water and Wastewater Management Improvement Investment Program. A further 3 loans were multisector projects, but with significant WSS components.

37. **JICA sector portfolio.** JICA projects that were approved over the review period comprised 7 loan projects with a value of roughly \$677 million, 1 grant project at \$11.6 million, and 4 technical cooperation²⁹ projects (Appendix 2). The projects focused on three key areas: (i) improving water supply: expanding the existing water supply facilities in urban areas and introducing new pipe-borne water supply facilities including community-based small-scale facilities in rural areas (including CKDu-affected areas); (ii) reducing NRW: replacing and repairing aged water pipes in urban areas and providing related technical cooperation; (iii) improving sewerage: implementing high-priority projects after analyzing the current status and challenges through technical assistance for the strategic master plan for the sewerage sector. JICA has implemented several urban water supply projects, mainly in Colombo and Kandy. Support has also been provided to rural water supply projects to expand coverage and improve basic infrastructure to promote economic development. Nonrevenue water is an important area of JICA's sector support via technical cooperation activities, which have increased the efficiency of NWSDB's management of urban water supply schemes. In addition, JICA has provided support through a range of other resources, such as mobilizing volunteers (Japan Overseas Cooperation Volunteers), technical expertise and technology from small and medium-sized enterprises, and Japanese municipalities (waterworks bureaus) to address sector needs that are difficult to tackle through loans, grants, or technical cooperation. While in the past, JICA has worked in both rural and urban water supply, it has more recently focused on urban sanitation through the development of the Kandy WWTP and the preparation of a national sewerage master plan, which should assist both JICA and other development partners define necessary investments in the sector.

38. **WBG sector portfolio.** WBG has been one of the major partners in the WSS sector in Sri Lanka with approved loans of \$421 million through dedicated sector projects or components of projects in various sectors (Appendix 3). The projects have covered urban and rural water supply and sanitation, and rehabilitation in the wake of natural disasters and conflict. Significant nonlending support has also been provided for infrastructure assessment, public-private partnership frameworks, and urban policy covering WSS among other sectors. In its core program, WBG has focused on rural WSS and has supported 3 projects since 2003, which have promoted the development of CBO and village-level water supply schemes. WBG has also supported 9 mainly urban projects with at least 20% of total commitment applied to WSS.

C. Focus of Sector Support

39. **Sector strategies.** The three agencies (two multilateral and one bilateral) in this review focus on somewhat different but complementary sector development objectives. The roles and objectives of each development partner are described in their strategy documents,³⁰ which also summarize their approaches and programs. The sector strategies of the three development partners covering the review period (Table 2) indicate general alignment of issues and themes, particularly for ADB and WBG. For the period leading up to the end of the civil war and immediately following the war, the focus was on scaling up support for reconstruction and rebuilding of WSS infrastructure in conflict-affected areas (mainly the Northern and Eastern Provinces) and those bordering them, and poverty reduction especially for those internally

²⁹ JICA's Technical Cooperation scheme is a separate program of support, distinct from any loan or grant support that multilateral agencies such as ADB and WBG would typically provide as part of technical assistance (TA).

³⁰ Appendixes 1–3 provide additional details of the sector support strategies and programs of ADB, JICA, and WBG, respectively. The joint case study report (para. 4) provides further analysis on the contribution of the three development partners to the development of the sector.

displaced by the conflict. Following the end of the conflict, sector strategies shifted to supporting economic growth and recovery, strengthening governance, and social development and inclusive growth. These strategies were closely aligned with the government's 2010 development policy framework (footnote 17).

40. **Project locations.** An overview of the locations of sector support interventions provided by ADB, JICA, and WBG over the review period is provided in Figure 2.1 in the joint case study report (para. 4). Although there appears to be some overlap in the locations of projects and sector support activities, a level of complementarity exists regarding the focus and timeframe of project support by each of the development partners. The timing of the support in these overlapping regions also indicates that projects supported by different development partners in the same region have provided synergies by complementing or building on previous interventions by counterpart development partners.

41. The analysis of the overall sector support portfolio across the three development partners did not reveal significant duplication or overlap of projects, indicating that a level of coordination and consultation exists between the development partners and the government. The next chapter examines the extent of such coordination and the mechanisms under which it has taken place.

Evolution of Coordination Processes in the Water Supply and Sanitation Sector

A. Enablers and Barriers

42. The major tools used by the government to achieve national economic development goals and guide sector development priorities are the national 10-year development plans and supporting documents. The current development policy framework 2006–2016 (footnote 17) outlines the strategic approach to WSS development over the period and provides a framework within which the government and development partners can discuss and develop investment plans and proposals. It lists the targets for WSS service delivery, together with the estimated financial requirements to complete the program. It provides a useful framework within which the government can coordinate support with development partners, and development partners can develop specific investment programs, although it is now near the end of the plan period. It is likely that the next development plan will be prepared by 2018, which should also provide a useful framework for development coordination and planning.

43. Detailed national sector development plans are produced by the agencies responsible for different sectors. NWSDB has wide responsibility for the WSS sector and prepares 10-year development plans, the latest being for 2016–2025.³¹ Medium-term corporate plans are also produced, presently for 2016–2020 (footnote 24). Together, these plans form a sound basis for medium- to long-term development. However, they generally lack detail—for example, regarding which WWTPs should be prioritized. There is thus a need to prepare specific sector master plans³² to guide sector level programs and priorities. Similar plans could be prepared for urban and rural water supply development, which would provide a basis for the government, development partners, and other donors to agree on specific geographic or technical areas in which they prefer to offer support, and thereby promote enhanced sector coordination.

44. In principle, this planning process should enable rational development planning and prevent serious overlaps or conflicts. However, a key barrier to the reform of the WSS sector is the large number³³ of Acts of Parliament relating to the management of water. These laws have been enacted over time to meet specific needs, often with little consideration of existing legislation or future needs. Laws are administered by different agencies with a wide range of responsibilities, and there are overlaps, gaps, and conflicting jurisdictions, leading to uncertainty and resistance to change.³⁴ For example, a lack of understanding of legislative requirements

³¹ Government of Sri Lanka, National Water Supply and Drainage Board. 2015. *10-Year Development Plan for Water Supplies and Sewerage Facilities, 2016–2025*. Colombo.

³² For example, a national urban sanitation master plan is being prepared as part of a JICA-supported program.

³³ There are over 50 Acts of Parliament relating to the water sector.

³⁴ FAO. 2016. *Aquastat 2016. Food and Agriculture Organization of the United Nations (FAO)*. Rome. http://www.fao.org/nr/water/aquastat/countries_regions/LKA/.

partly contributed to the failure of the Water Services Reform Bill and amendments to the NWSDB Act to gain timely parliamentary approval prior to the change of government in 2005. The legislation would have authorized the PUC to act as the independent regulator for the water sector. Notwithstanding these challenges, and given the relatively recent emergence from civil war when finance was limited and planning difficult, the achievements of national and sectoral planners are commendable.

45. Achieving a high level of coordination and coherence should be relatively straightforward in Sri Lanka. Geographically it is small and relatively accessible; the government has the capacity to play a leading role relative to its donors; and the number of large donors is relatively small. However, coordination and coherence during the civil war proved difficult.³⁵ The civil conflict and natural disasters such as the 2004 tsunami provided added urgency to the need to improve coordination among the different stakeholders, both internal and external, to ensure that the volume of external donor support and emergency humanitarian relief could be managed effectively and efficiently to achieve the intended objectives.

46. Following the end of the civil war in 2009, the need for coordinated approaches declined with the reduction in emergency aid to the country and the corresponding shift in focus to rebuilding and resettlement. With this shift, the government was also able to take on full responsibility for national development programs and coordination with development partners. As a result, many of the donor-driven aid coordination mechanisms (e.g., Water, Sanitation, and Hygiene [WASH] programs), which were established to manage overall emergency relief activities in conflict-affected areas in the north and eastern areas of the country were discontinued.³⁶

B. National Water and Sanitation Coordination Committee

47. With the end of the civil conflict, efforts to continue sector coordination activities culminated in the transfer of emergency WSS coordination processes to the Ministry of City Planning and Water Supply (MCPWS). This led to the establishment of the National Water and Sanitation (WATSAN) Coordination Committee, with meetings chaired by the Secretary of the ministry. At present, this is the only formal mechanism in place for coordinating activities between the government and development partners in the WSS sector.³⁷ The main objective is to review and update the status of development plans and projects with agencies and relevant stakeholders, and to minimize potential conflicts. The meetings also serve as a forum to share knowledge and encourage open dialogue between sector actors. MCPWS invites a wide range of stakeholders to attend the WATSAN Coordination Committee meetings, ranging from development partner agencies, nongovernment organizations (NGOs), other government agencies, private sector representatives, and universities. Stakeholders from other sectors including health, education, and disaster management are also invited.

48. The WATSAN Coordination Committee meetings provide a platform for all stakeholders to exchange knowledge about sector activities, maximize synergies, and mobilize resources to address the issues facing the sector. The government agencies, NGOs, UN agencies, and private sector actors follow a participatory and inclusive approach and act as equal partners. External agencies participating in the forum highly appreciate the opportunity to engage in a dialogue

³⁵ Chapman, N., et al. 2009. *Evaluation of Donor-Supported Activities in Conflict-Sensitive Development and Conflict Prevention and Peacebuilding in Sri Lanka*. Paris: OECD.

³⁶ UNICEF coordinated the WASH Cluster during the conflict period and natural disasters including the 2004 Indian Ocean tsunami. In the event of a national emergency, UNICEF will reconvene the WASH Cluster for coordination of efforts for humanitarian assistance.

³⁷ A number of agencies are currently, or have in the past, provided support to the WSS sector in Sri Lanka. In 2005, there were 19 bilateral agencies, 3 multilateral, and 11 UN agencies supporting the WSS sector. Most of the agencies continue to support the government in the sector. <http://www.lankalibrary.com/news/NGO.pdf>.

with the government. There are number of other subcommittees established under the WATSAN Coordination Committee, focusing on themes such as the SDGs, water safety and quality surveillance, CKDu, and emergency WASH coordination. Regular monthly meetings were held until end of 2014. There were some disruptions to regular meetings in 2015 because of changes in the ministry following the election and subsequent change of government, coupled with the lack of a fixed administrative focal point to coordinate the meetings. The meetings restarted in 2016 and are now held bimonthly.

49. Feedback received from government officials underscored the importance of the WATSAN Coordination Committee meetings as a platform for scattered sector stakeholders to meet and collaborate, and provide guidance to the government on important sector development issues. This was especially important for sanitation for which responsibility was shared by a range of ministries and agencies handling health, local government, education, and water supply. The meetings provided a platform linking important sector stakeholders with critical knowledge regarding sector developments. This was an important role since over the last two years the ministry responsible for water supply has had five secretaries and changed its name three times, resulting in a loss of institutional memory.

C. Coordination between Development Partners

50. Until the end of 2015, there was a WSS sector donor working group (1 of 9 sector-focus working groups, Figure 5). It was chaired by the French overseas development assistance agency, Agence Française de Développement (AFD) and linked to the Development Partners Forum coordinated by the World Bank's Sri Lanka office.³⁸ The purpose of the WSS working group was to provide coordinated and harmonized support to the WSS sector and allow development partners to share information and prepare for dialogue with the government, its relevant sector agencies, and other stakeholders. The group's terms of reference³⁹ outlined the following four functions:

- (i) Map development partner's assistance to the sector;
- (ii) Broadly review the collective development partners' aid delivery quality to the sector, identify opportunities for collaboration, bottlenecks to implementation, and possible remedies;
- (iii) Interact with the government, civil society, private sector, and other relevant stakeholders; and
- (iv) Review and address harmonization issues.

51. AFD chaired the first two meetings, but the group has not met since 2015. Reasons given to the review team for the cessation of meetings include the expanding portfolio of AFD activities in Sri Lanka, which limited the human resources to actively maintain the working group. Another, and perhaps key factor, was the departure of AFD's chief Sri Lanka representative and its primary WSS project officer who had been instrumental in driving and supporting the creation of the working group, including preparing the group's terms of reference, and was responsible for coordinating and organizing the initial meetings. The review team held interviews with AFD's new WSS project officer, who also participated in the workshop held by the review team at the end of the joint fieldwork mission, which revealed that AFD was supportive of having formal coordination mechanisms between the three development partners, but was not aware of the

³⁸ The Development Partners Forum is an informal, broad, and inclusive mechanism for information- and experience-sharing within the foreign aid community in Sri Lanka. It provides an opportunity for development partners to identify and discuss topics of common interest and areas that may require further dialogue with government authorities. The forum allows missions to brief each other on their aid strategies and programs, as well as discuss new initiatives. The WBG's Colombo office serves as the Development Partner Secretariat supported by a dedicated Development Partner Coordinator position.

³⁹ World Bank. 2016. *Development Partners' Coordination Framework 2015–2016*. Colombo.

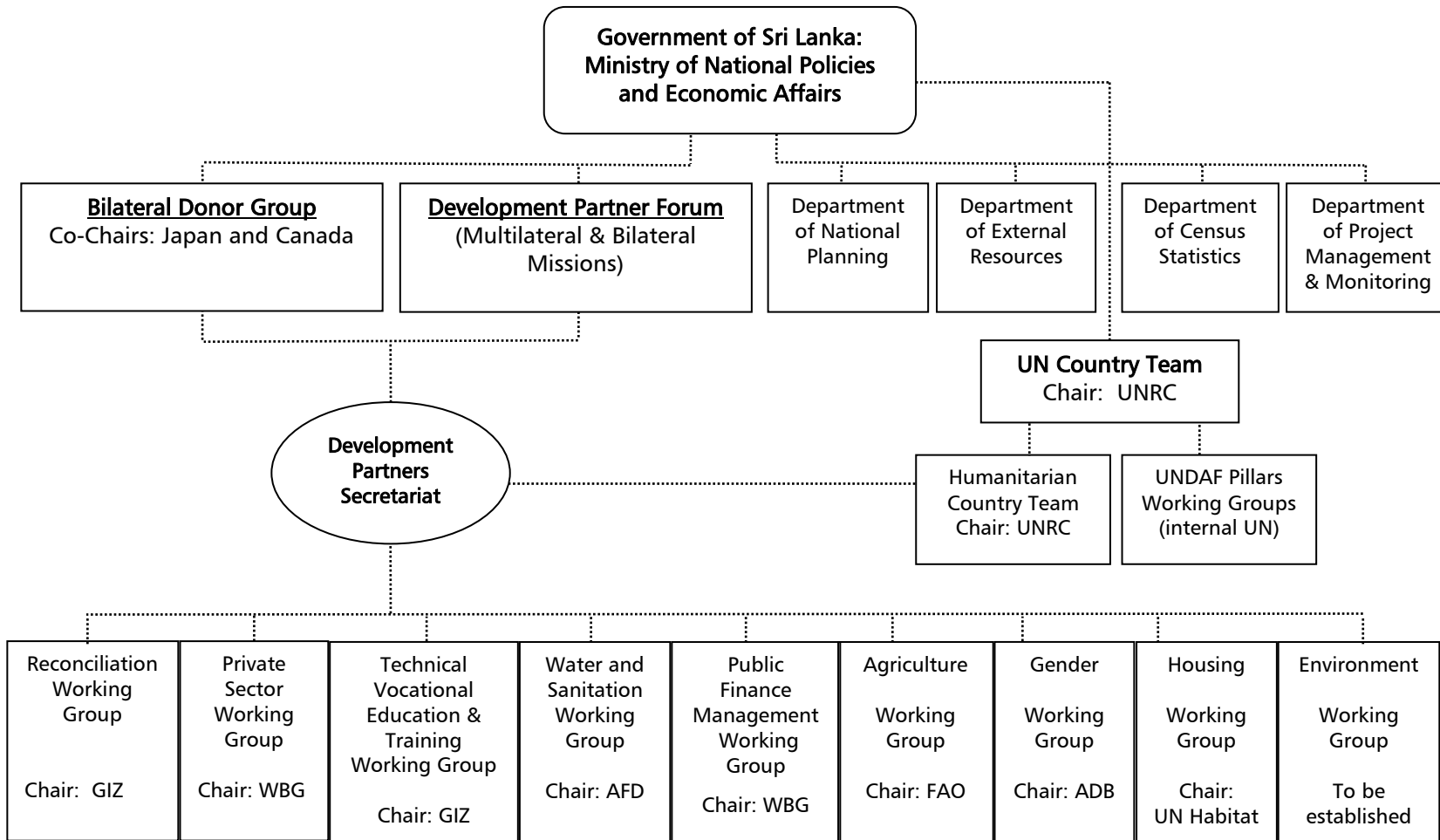
previous arrangements. The fact that there was no action following the change in AFD personnel suggests that it may not have been a top priority among the development partners or that other informal arrangements may have satisfied the need for information sharing or collaboration. Indeed, this confirmed the findings of other donor coordination reviews⁴⁰ that staff shortages or high turnover often resulted in loss of “institutional memory” regarding programs or initiatives to be implemented, and resulted in increased workloads for development partner staff.

52. The lack of support for the working group after 2015 may also be partly explained by the restarting of the WATSAN Coordination Committee meetings. The working group meetings may be more relevant in a natural disaster or conflict situation or where multiple ministries and departments are involved in WASH activities. Working group meetings may also be more relevant where there is a need to develop a unified position independently of the government. A development partner working group, however, has the advantage of a relatively narrow focus, which could help development partners define their longer-term strategy through timely awareness of what others in the field are doing, thereby improving complementarity and reducing possible overlap of sector support.

53. The end of formal working group meetings did not mean that there was a lack of communication between development partner agencies. Evidence from interviews and data analysis from this joint review indicates that informal networks and communications were well established and have been effective, ensuring that sector programs and interventions were still coordinated with a high level of awareness of each agency’s programs. Since a formal coordinating structure had previously been in existence, officers from different development partner agencies were already acquainted and maintained regular informal contact. Despite the lack of formal meetings since 2015, this informal network was used to enable clear and swift communication between donors, share knowledge and information, and ensure consistency in communications and messaging to the government on key WSS matters. However, the risk of losing institutional memory remains as agency personnel inevitably change over time.

⁴⁰ World Health Organization. 2009. *Review of Coordination Mechanisms for Development Cooperation in Tajikistan*. Regional Office for Europe, Copenhagen, Denmark.

Figure 5: Sri Lanka Development Coordination Structure (September 2016)



ADB = Asian Development Bank, AFD = Agence Française de Développement, EU = European Union, FAO = Food and Agriculture Organization of the United Nations. GIZ = Deutsche Gesellschaft für Internationale Zusammenarbeit. UNDAF = United Nations Development Assistance Framework, UNRC = United Nations Resident Coordinator, WBG = World Bank Group.

Source: Agence Française de Développement and Development Partners Secretariat.

54. The lack of a formal development partner coordination mechanism was not a barrier for effective coordination between ADB and WBG in improving the design of support programs for improving rural water supply. For example, the project design for ADB-supported Secondary Towns and Rural Community-Based Water Supply and Sanitation Project (approved in November 2003 and closed in December 2014) was closely modeled on the WBG’s Community Water Supply and Sanitation Project (approved in December 1992 and closed in December 1998). The ADB project incorporated key improvements to the CBO design to address issues and lessons identified in WBG project implementation experience. Interviews held with ADB and WBG project officers by the joint review team revealed that meetings were held between both agencies, which led to changes in the CBO design for the ADB project, to include local NGO involvement for up to 2 years to build community awareness and support, which was critical for the sustainability of CBO schemes.⁴¹ Further, the ADB project linked the CBO to NWSDB and local authorities, which was helpful to (i) provide technical support during the initial establishment phase and (ii) create a sense of ownership within local authorities, which led to full commitment from NWSDB and local authorities to provide backup support to CBOs during the operation and maintenance of the schemes. This arrangement was an improvement in project design based on the WBG project implementation experience, which in contrast did not incorporate any direct links with local authorities and NWSDB.

55. Another example of coordination is between ADB and JICA in relation to the ADB-supported Greater Colombo Wastewater Management Project, which upgraded sewerage infrastructure including pumping stations, sewer pipes, and discharge outfalls servicing Colombo City. ADB provided financing of \$30 million from 2017 to meet planned additional investment needs. The consultancy contract for the project included a component for the preparation of a sewerage masterplan for Greater Colombo. However, it was dropped as a national strategic sewerage masterplan was being planned by JICA, which the government and development partners agreed was suitable.

Figure 6: Meter Readers in Community Based Organizations



Meter readers proudly displaying their uniforms at Diulankadawala CBO, Polonnaruwa District. This CBO placed second in the national CBO performance ratings in 2015.

Source: Joint review team.

⁴¹ JICA’s Eastern Province Water Supply Project also benefited from discussions with the WBG team’s project experiences on design of CBOs. The JICA project adopted an organizational structure for operation and maintenance that considered CBO capacity, which was important for sustainability.

D. Coordination with Other Donors

56. Although ADB, JICA, and WBG remain the three major sources of assistance and support in the WSS sector in Sri Lanka, a number of other bilateral donors have also contributed (Table 3). In recent years, there has been a growing level of bilateral support provided by countries in the region, notably the People's Republic China and India, which are increasingly making their presence felt in the sector. While the additional sources of external support have generally been welcomed, they also raise concerns regarding potential risks if project systems and safeguards are not held to the same standard as those required by traditional development partners such as ADB, JICA, and WBG. During interviews with NWSDB officers by the joint review team, it was noted that proposals from bilateral donors such as People's Republic China appeared to be associated with more flexible terms and conditions (compared with those of the traditional development partners). It is important that the government undertake a comprehensive review process to ensure that all proposed projects are well-conceived and beneficiaries are treated fairly.

57. The growing presence of new players in the development partner landscape also adds a level of complexity regarding the existing coordination mechanisms between traditional donors. The involvement and engagement of new players in the existing mechanisms will be important to minimize these concerns by harmonizing and aligning approaches for sector support. In this regard, the government has an important role in ensuring that sector support, be it from traditional or new sources, is aligned with national sector development plans and that processes for managing and coordinating external donor support operate according to similar principles and institutional channels. Officers from the Sri Lanka government assigned to coordinate projects financed by ADB, JICA, and WBG acknowledged that there has been little direct engagement with other bilateral donors, but agreed that including them in existing or new coordinating mechanisms was important.

Table 3: Water Supply and Sanitation Projects Supported by Other Donors Since 2005

Development Partner	Project	Duration	Amount (\$ million)
Government of Australia	Eastern Coastal Towns of Ampara District, Phase III Rehabilitation and Upgrade of Southern Catchment	2011–2015	90
	Greater Colombo Sewerage	2006–2012	20
Government of the People's Republic of China	Thambuttegama Water Supply Project	2014–2017	13
	Katana Water Supply Project	2014–2015	12
	Greater Kurunegala Water Supply Project	2013–2015	84
	Wandura Pinu Ella Water Supply Project	2012–present	69
Danish International Development Agency	Kelani Right Bank Water Treatment Plant	2008–2010	80
	Nuwaraeliya District Group Water Supply	2006–2010	45
	Towns South of Kandy Water Supply	2005–2010	96
Government of Germany	Energy Conservation Project at Water Treatment Plants	2009–2012	60
Government of India	Greater Dambulla Water Supply Project	2012–2014	33
Government of the Republic of Korea	Ruhunupura Water Supply Project	2011–2014	86
Government of the Netherlands	Augmentation of Negambo Water Supply	2007–2010	67
Government of	Kolonna–Balangoda Water Supply Project	2012–2016	40
Government of France	Greater Trincomalee Water Supply Project	2008–2012	40
Government of Spain	Water Treatment Facilities in Moratuwa, Panadura, Ambatale, and Negombo	2007–2010	26

Development Partner	Project	Duration	Amount (\$ million)
Government of the United States	Badulla Haliela, Ella Water Supply Project	2011–2016	65
Swedish International Development Agency	Ekala, Jaela, Rathmalana, Moratuwa Wastewater Improvement Project	2006–2012	110

Source: Sri Lanka National Water Supply and Drainage Board.

58. There has been little cofinancing of operations between the development partners during the review period. While this may indicate low levels of coordination, it is only one component of the overall coordination landscape. The only significant cofinancing that occurred was in ADB projects, namely the Greater Colombo Water and Wastewater Management Improvement Investment MFF Project and the initial Jaffna and Kilinochchi Water Supply and Sanitation Project. In both cases, AFD provided joint cofinancing of \$101 million, and \$40 million, respectively. Joint cofinancing in the latter project was withdrawn following a redesign of the project. In the former, \$50 million parallel cofinancing was also provided by the European Investment Bank under tranche 3 of the MFF. Interviews and discussions held during the review revealed that while cofinancing was viewed positively, it was not a primary focus of many WSS projects because of the additional time and effort required during design and implementation. It does, however, have the potential to add grant funding to a loan project, which can allow technical assistance to be provided, which the government may hesitate to agree to funding from the loan. Parallel cofinancing arrangements (where development partners fund separate but coordinated contracts for a project) are the preferred, less complex funding partnership in the WSS sector (as opposed to joint cofinancing, which jointly finance the same contract). Cofinancing partnerships need to be carefully assessed to ensure mutual benefits regarding achieving common development goals while avoiding imposing a heavy burden on one development partner's staff time for supporting other development partner-funded components, whether related to safeguards, technical appraisal, or procurement.

E. Coordination between WSS and Other Sectors

59. NWSDB managers consider that coordination between water supply and other government agencies providing urban services—electricity, telecommunications, and roads has not been well managed. In particular, coordination with the Road Development Authority on road projects, which often have flow-on impacts on WSS infrastructure planning and operation and maintenance (O&M), has been difficult. Problems typically include a lack of consultation regarding road upgrading activities. For example, NWSDB officers explained that in parts of Batticaloa town, road widening and upgrading works resulted in the concreting over of water distribution lines, making monitoring, repair, or replacement of water pipelines difficult and expensive. Another example involved a CBO scheme in Nuwara Eliya, where water supply was cut off for two months during a road improvement program because the Road Development Authority failed to provide a temporary mainline during the construction period. These examples highlight a lack of consideration of the requirements of other service providers and lack of an integrated approach to planning and delivery between infrastructure service providers. Overall, this results in reduced levels of service and increased cost to the beneficiaries and the community at large. Improved interagency coordination mechanisms are needed to promote integrated planning and optimal use of road alignments or other infrastructure for the provision of a range of services including water and sewerage and to reduce waste.

60. CMC is primarily responsible for managing Colombo's sewerage network and owns the land through which water supply mains pass. Thus, any project that involves expansion or repair of the water supply network requires close coordination with CMC. During the review, officers from the Sri Lanka government assigned to coordinate JICA projects noted the prevalence of poor coordination with CMC over the many years of providing support to NWSDB for upgrading water

supply infrastructure in Colombo city. Further work is needed for Colombo and other cities to fully map and digitize the water and sewerage networks, and to make the data freely available to customers and other infrastructure service suppliers. In this way, and with sufficient support, it should be possible to coordinate improvement programs, minimize damage to urban infrastructure such as pipe networks, and ensure that any resulting problems are preempted or fixed as soon as possible to minimize service disruption.

61. The Ministry of Health is closely involved in monitoring water safety and has been able to coordinate activities with NWSDB to contribute to the marked decline in waterborne diseases in recent years. Analysis by the ministry indicates a 92% decline in diarrheal disease incidence between 1990 and 2013. While this has been partly because of improved awareness and availability of medical treatment, the contribution of greater access to safe water in towns and rural areas is likely to have been the dominant factor. The ministry collects 6 water samples per month in each subdivision from various points along the water supply network based on guidelines for selecting sampling location, for example covering community water supply, schools, and wells. In practice, the ministry has little control on enforcing preventive or remedial action. However, health officials inform local authorities of problems and suggest remedial measures. Public health inspectors are responsible for WASH activities and advise people of general or specific issues relating to water quality. The ministry summarizes the findings reported by the inspectors. The Epidemiology Unit indicated to the review team that during 2015, 77% of NWSDB samples were satisfactory. Over the same period, all NWSDB samples including those taken from distribution networks were reported to be at least 99% satisfactory. The reason for this large discrepancy needs to be examined.

62. The Ministry of Irrigation and Water Resources Management is responsible for managing bulk water allocation for agriculture and irrigation schemes, including managing water conservation and water source protection. The agricultural sector is by far the major user of surface and groundwater in Sri Lanka, estimated by the Food and Agriculture Organization (footnote 34) to account for 87% of total water withdrawal in 2005. However, most irrigation systems are dilapidated, and water use efficiency is low. Improving irrigation efficiency and catchment management can ensure that adequate supplies are available to meet overall urban, rural, and environmental water supply needs. This is also important because of the growing climate change impacts on the availability of water sources for all water-using sectors. There is a weekly meeting of key government agencies to discuss and agree on water allocations in the Mahaweli basin, involving the Ministry of Irrigation and Water Resources Management, Ministry of Mahaweli Development and Environment, MCPWS, and other agencies. Outside the Mahaweli basin, district water coordinating committees have been established with responsibility for water allocation decisions.

F. Conceptualizing the Evolution of Coordination Mechanisms in the WSS Sector

1. Dimensions and stages of coordination

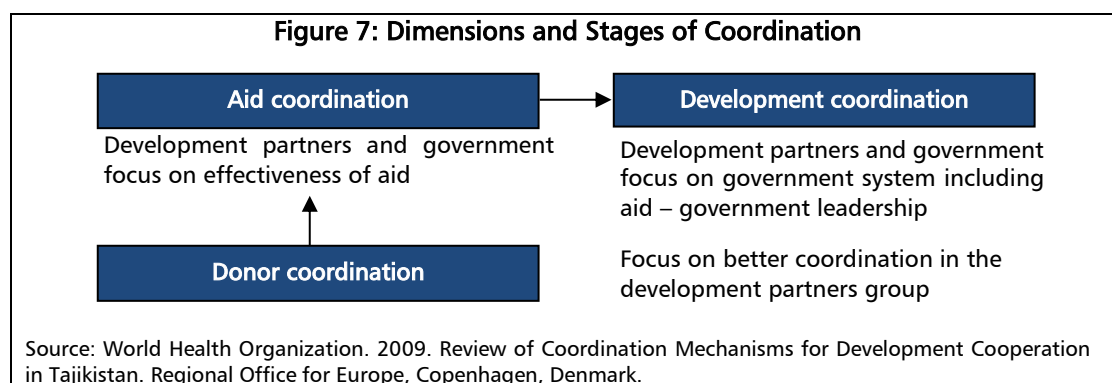
63. By analyzing the findings of this joint review through the lens of development partner coordination, three closely related dimensions of coordination can be applied to the WSS sector in Sri Lanka to better understand the evolution of the coordination landscape (footnote 39):

- (i) **Aid coordination** refers to the established mechanisms and arrangements that country governments and their development partners have agreed on to maximize the effectiveness of external aid for development at national or sector levels.
- (ii) **Donor coordination** is a subset of aid coordination and refers to the specific mechanisms and arrangements agreed within the community of development

- partners to improve their effectiveness as partners in the development process; and
- (iii) **Development coordination** (at national or sector level) refers to the combination of and relationships between aid coordination and the national government systems (including policymaking and implementation, governance, and accountability) that ultimately deliver the development results.

64. Aid or donor coordination efforts alone will not achieve significant development results unless they are effectively integrated within national development planning and governance systems. Therefore, the aim of improving coordination processes and mechanisms is not just about improving “aid effectiveness” but “development effectiveness.”⁴²

65. These definitions provide a basis for analyzing the evolution of coordination structures because they also reflect a series of stages (footnote 39) that can be mapped against the evolution of WSS coordination mechanisms as witnessed in Sri Lanka over the review period. The three stages are described below and summarized in Figure 7.



- (i) **Stage one (Donor coordination):** Development partners are primary drivers and the government usually plays a passive role because of lack of systems to coordinate and manage aid or to engage with donors in policy dialogue.
- (ii) **Stage two (Aid coordination):** There is a more proactive engagement of government counterparts and the establishment of a basis for improved aid forecasting, accounting, and aid management systems on the government’s side; and
- (iii) **Stage three (Development coordination):** The government increasingly takes the lead in policy design and implementation and there are effective mechanisms for the management of government resources and for closer cooperation and engagement between the government and development partners linked to government planning processes and systems.

66. The three stages of coordination focus on different approaches and operate at different levels (e.g., national, sector, local, and program). The model provides a simplified but practical framework to understand WSS sector coordination arrangements in Sri Lanka over the past few decades. The first stage of the coordination evolution can be identified as the period of civil conflict, which resulted in a significant level of emergency aid entering the country. As the government lacked the capacity and resources to coordinate and manage the aid received, aid agencies such as UNICEF stepped in to work with the government and established formal frameworks and processes to assist in better coordinating humanitarian and relief supplies

⁴² N. Boesen and D. Dietvorst. 2007. *SWAPs in Motion: Sector-Wide Approaches: From an Aid Delivery to a Sector Development Perspective*. EuropeAid, Brussels. http://www.nilsboesen.dk/uploads/docs/SWAPs_in_motion.pdf.

received from the multitude of donor countries and organizations (second stage). The third stage of the coordination evolution is marked by the end of the civil war in 2009. At this point, the government assumed greater responsibility for coordinating national sector development programs. Coordination and responsibility for the UNICEF WASH cluster was transferred to the government under MCPWS and formalized through the national WATSAN Coordination Committee meetings. Therefore, based on this model of coordination, the WSS sector in Sri Lanka can be classified as Stage three, at a mature stage of development coordination.

67. The effectiveness of sector coordination mechanisms changes over time, invariably because of changes in key actors or the wider policy environment (e.g., change of government or changes to agency staff). This highlights the need for formalizing coordination mechanisms to support effective processes at both the development partner and government level. As noted above, champions from both the government and development partners play a fundamental role in supporting and sustaining effective coordination processes and helping to build capacity in government leadership for achieving sector goals and outcomes. Formalizing coordination mechanisms provides a foundation to nurture and sustain such processes. Leadership should not be taken for granted as it too depends on the actions and influence of specific individuals and champions. Development partners must therefore be effective partners to support ongoing leadership capacity building through sustained engagement with the government to collaboratively resolve and manage sector issues, and more importantly, support the government to map out future programs.

68. It is important to structure coordination mechanisms around a comprehensive government sector development plan with a corresponding framework for monitoring and review. The relatively successful WSS sector development program over the past decade, which saw NWSDB expanding coverage and access to improved water supply and sanitation (to be one of only three South Asian countries to achieve the water and sanitation MDGs) can partly be attributed to this, through the government's development policy framework (footnote 17) and NWSDB's 10-year development plan.⁴³

2. Coordination principles

69. Findings from this review support the development of a set of coordination principles that can provide a basis for assessing the health and resilience of coordination arrangements (which may be likened to a donor coordination SWOT analysis)⁴⁴ in a given country or sector context, and between development partners and the government. Although their fulfillment may not guarantee the effectiveness of coordination arrangements or mechanisms, the principles proposed below can serve as a preliminary filter of the key elements required to achieve it. It is also important to interpret these principles in terms of desired objectives or targets, with effective coordination positively correlated to the extent that these are achieved:

- (i) Alignment of coordination mechanisms with national sector development plans and objectives (including level of integration and engagement with other sectors), with appropriate monitoring and reporting processes established;
- (ii) Harmonization and alignment among development partner sector programs and implementation processes;
- (iii) Existence of both formal and informal coordination networks or groups (between development partners and/or between development partners and

⁴³ Government of Sri Lanka, National Water Supply and Drainage Board. 2015. *10-Year Development Plan for Water Supplies and Sewerage Facilities, 2016-2025*. Colombo.

⁴⁴ An analysis undertaken by an organization to identify its internal strengths and weaknesses, as well as its external opportunities and threats. Here, the same principles are applied, but in the context of the coordination environment between and among development partners and the government in a given country and sector.

- government agencies), which meet on a regular basis with established links to government engagement frameworks or structures; and
- (iv) Government leadership (through sector champions) and ownership of sector development plans with clear links to development partner sector programs.

70. When applied with the conceptual model outlining dimensions and stages of coordination (Figure 5), these principles provide a simple assessment framework that can inform an assessment of the level of maturity of coordination mechanisms in a given country and sector. It is envisaged that future sector studies on donor coordination may build on the findings of this review to progressively develop a framework that can be applied with a higher level of confidence across countries and sectors.

Conclusions, Lessons, and Next Steps

A. Conclusions

71. **Overall, the sector programs supported by the three development partners during the review period were consistent with their respective strategies and aligned with the government's sector development plans.** Planning activities were appropriately coordinated between the development partners and with the government to ensure that the programs addressed key sector issues and leveraged synergies where appropriate, without overlapping on locations or beneficiaries.

72. **The support to the WSS sector was deemed *effective*, but there are concerns on process efficiency.** The programs were effective as evidenced by the country's rapid progress in achieving access to improved water supply and sanitation, particularly in rural and conflict-affected areas over the review period. However, project approval and implementation delays were widespread (Table A1.3), because of the lengthy procurement and approval processes on the part of both the government and development partners. This limited overall program and process efficiency for all development partners and is an area for improvement identified by all stakeholders.

73. **The review considers coordination between development partners to have been satisfactory, particularly since the end of the civil war.** In large measure, this is because only one agency (NWSDB) has been primarily responsible for the development and management of the sector and as there was a clear national development plan outlining sector objectives. No specific cases of ineffective coordination, for example, the duplication of project activities, were identified during the review.

74. Coordination between government agencies is promoted through the bimonthly WATSAN Coordination Committee meetings organized by the Department of Planning under the MCPWS. Development partners are invited to these meetings, which promotes coordination between them and other sector stakeholders. Although a formal development partner WSS working group organized and chaired by AFD did operate for some time, it has not been active since 2015. There is a need to consider whether a separate WSS sector development partner working group should be reestablished to meet regularly, as in the case in several other countries including Afghanistan and Viet Nam. The alternative would be for development partners to focus on the bimonthly WATSAN Coordination Committee meetings. Despite the satisfactory progress achieved in the sector to date, this paper argues that establishing a separate WSS donor group would still be valuable. Coordination could be further improved with a more formal coordination mechanism in place, since it would provide a forum for full and frank discussion of sector programs, and provide a basis for development partners to take matters forward to the bimonthly meeting when necessary. This also mitigates the risk related to changes in agency personnel and loss of institutional memory. In other countries, this model has proved very effective. This proposal is further discussed in the recommendations section below.

75. **From a technical and management perspective, there are several issues that call for further improvements in the coordination between development partners and the projects they support.** Findings from the joint fieldwork mission and interview program noted issues relating to equipment quality (linked to the tendering process, with insufficient weight being allocated to quality) and procurement procedures that were complex and slow, delaying project implementation, adding to costs, and potentially impacting sustainability. This will require more effective coordination between the government agencies and development partners to share information and ensure that programs are well designed and efficiently implemented.

76. The Ministry of Health and NWSDB share responsibility for water quality monitoring; however, there is little direct coordination between the two. The differences in water quality results by the two agencies as noted earlier may be grounds for closer coordination to strengthen confidence in the testing and monitoring systems. The improvement in public health because of the reduction in incidents of waterborne diseases over the past 25 years has been remarkable.⁴⁵ Improving coordination between the agencies will be important to address the CKDu concern (para. 31 [viii]).

77. **CKDu remains a challenge, with little information regarding its causes.** Consideration should be given to providing bulk WTP water to the affected areas. A policy on prioritizing areas for water network expansion to CBO scheme areas is desirable, especially in CKDu areas where the government is already investing heavily. A detailed assessment is needed, and projects designed for national and development partner funding should be identified as part of a sector development program prepared in close coordination with development partners and government agencies.

B. Lessons

78. Several lessons can be drawn from the findings of this joint review:

- (i) **WSS sector policy reform is complex and takes time (typically beyond the timeframe of a single project or investment) and requires strong government support (including the involvement of local champions) and coordination of policy support programs among development partners,** particularly in such a politicized sector in Sri Lanka (footnote 20). While the support of development partners such as ADB, JICA, and WBG is highly valued, it is important that they are not seen as placing undue external pressure on the reform process as this may trigger resistance. Policy and institutional reform can be assisted by external donor encouragement, but ultimately requires government commitment (and champions) to be successful. Active support and participation of development partners in formal coordination mechanisms can greatly assist this process through ongoing dialogue between key sector stakeholders.
- (ii) **The approach initially designed by WBG and further improved by ADB for the establishment of rural CBO water supply schemes is innovative and effective.** In particular, the involvement of local NGOs during scheme design raised awareness and encouraged community participation (especially by women) in scheme planning, supported by technical and training support by NWSDB and local authorities during the CBO establishment and subproject implementation phases. However, no follow-up projects from any development partners were implemented, which could have consolidated gains and strengthened CBO capacity to provide a sound basis for expanding some schemes to neighboring areas that NWSDB is currently reviewing.

⁴⁵ Between 1990 and 2013, the ranking of diarrheal diseases as a leading cause of premature death in Sri Lanka shifted from 4th to 34th place (footnote 20).

- (iii) **Coordination between the government and development partners is valuable and needs to continue to ensure that sector planning and development programs remain effective.** There are two significant ways this has been supported: (a) the medium-term plans prepared by NWSDB, which identify the priority towns for WSS development; and (b) the master plans, such as the one being prepared for sewerage undertaken with JICA support to map sector development needs.
- (iv) **Effective coordination between development partners depends in large measure on the commitment and initiative of donor agency officers to keep coordination groups relevant and active.** Coordination structures need to be well-defined and formalized, preferably with clear terms of reference that outline the objective of the group, and delegation of well-defined responsibilities for secretariat or chairmanship functions (including preparing and circulating meeting minutes), with a predetermined duration or rotation to ensure that each agency is aware of its responsibility as a member of the group. This also mitigates the risk of possible disruption resulting from the change in agency officers and places the responsibility with a donor agency instead of relying on the commitment of individuals or informal networks. The main benefits supporting the reestablishment of a development partner working group include:
 - (i) coordination and alignment of donor support and strategies and procedures, such as agreeing on common procurement and implementation procedures (e.g., common prequalification arrangements for suppliers of different types of equipment, or adopting common technical designs) to promote consistent approaches for streamlining implementation;
 - (ii) sharing knowledge and information on current and planned projects, thereby preventing duplication of sector programs supported by different donor agencies;
 - (iii) potential sharing of project resources between agencies, which in turn may reduce unnecessary material waste or duplication (e.g., cofinancing); and
 - (iv) communicating consistent approaches to encourage the government to pursue sector reform policies and streamline implementation of programs.

Donor coordination is desirable for achieving sector development outcomes, provided there is a shared vision of the challenges of the sector and the will (on the part of the government and development partners) to promote changes in sector policy. Having formal structures for coordination is important but not necessary for effective coordination, but willingness and commitment of individuals from donor agencies is essential. Complementing this with the establishment of formal mechanisms can significantly enhance resilience and sustainability; and

- (v) **Coordination tends to work best when there is a web of formal and informal engagements.** The evidence from this review suggests that it is not a case of adopting either formal or informal structures to facilitate effective donor coordination. For instance, formal water sector coordination mechanisms were established during the civil conflict period, which served as a means of coordinating many sources of external humanitarian and relief activities during the civil war and after natural disasters such as the 2004 tsunami. This structure eventually transitioned to the WATSAN Coordination Committee meetings under MCPWS following the end of the civil war. As a result, there now exists a web of informal structures that had developed around the initial coordinating structures

both between donors and the government, and between development partners themselves. However, there is a risk that without the formal “anchor” of the WATSAN Coordination Committee meetings (and associated working groups, including WSS), some of the informal structures that are now working well could also start to weaken over time. While formal and informal structures have been in place, there is merit in formalizing coordinating mechanisms to lay the foundation for systematic engagement and information sharing arrangements to build resilience in connectedness between sector actors and better manage change.

C. Next Steps

1. Suggestions for development partners and government

79. **For development partners.** If indeed there is merit in reestablishing a WSS working group, this group could meet bimonthly, possibly during alternate months to the WATSAN Coordination Committee meetings, which would complement the WATSAN Coordination Committee meetings by providing a forum for determining feasible sector-level interventions or programs. The group can add value by having more focused discussion between development partners on sector-specific issues, discuss progress on projects, and develop consistent approaches and share information and experiences to improve program implementation. In turn, this could assist the government achieve progress regarding overall sector development objectives. This contrasts with the larger WATSAN Coordination Committee meetings, which involve a larger group and cover links with wider sectors and topics that may not be relevant to all participants.

80. **For the government.** An overarching national water policy, which clearly prescribes water use priorities and provides clarity on the application of various legislation relating to water use management is desirable. This removes the possibility of political influence in water allocation decisions. Such a policy must also encourage integrated and consultative approaches to project planning between government agencies on all matters related to water use. This is especially important given the growing impact of climate change on the availability of water sources for all water-using sectors.

81. Water supply and sewerage system development requires land and water allocation, and negotiation with other ministries and agencies. Resolution of these issues can take substantial time and resources. Improved interagency coordination and adoption of an integrated approach to infrastructure planning (e.g., preparing common infrastructure development plans supported by digital asset mapping using geographical information systems) should be prioritized. For example, catchment deterioration is leading to environmental degradation and reduced source water quality. Policies are needed to promote basin-level catchment management and protection through implementing integrated water resource management to complement water infrastructure development.

82. **For both development partners and the government.** While each development partner has its own procedures and requirements for project planning and procurement, they should, as far as possible, establish a uniform approach that shortens both design and implementation periods, without jeopardizing project quality and timeframes. Implementation delays occur on both sides, mainly because of the large number of approvals required. Discussion with development partners, and perhaps a workshop, will be desirable to assess the extent to which: (i) procurement processes can be streamlined; (ii) whether at least to some degree, development partners can adopt a common approach or procedure; and (iii) to identify opportunities to increase the level of government interagency coordination to improve process efficiency and reduce delays.

83. On the government's side, contracts exceeding \$3 million need to be approved by the cabinet, which can lead to delays regarding project delivery timeframes. The government could consider reviewing this threshold and increasing it substantially to reduce approval-related delays. Development partners could also consider adopting a common process for the prequalification of suppliers for projects to ensure that equipment quality (e.g., for pipes and pumps) is adequate and does not undermine project sustainability. Adopting these changes could further reduce delays and improve project delivery timeframes, which have taken up to 2 years for procurement alone.

84. The role of development partners with respect to sector development targets should be clearly defined. The government needs to take responsibility by reviewing and improving sector development plans that provide detailed objectives and program outcomes over a prescribed period. This will serve as a useful tool to engage with and coordinate prospective development partner investment and support, including identifying opportunities for development partner involvement, and building on key strengths and strategies of different development partners. Such a document could build on the draft NWSDB 10-year development plan, prepared in 2015, but should contain more detailed information on project priorities, funding gaps, and proposed timing. Although NWSDB has good knowledge of the needs of rural communities, coordinating strategic support from all development partners will be helpful in defining the optimal program for medium-term development. For example, a TA project that would help define the optimal range of sewerage systems and identifying the towns where they could be applied would be useful. Such a TA project could also define a long-term program for the development of centralized and decentralized WWTP systems, which would provide a basis for planning development partner and government investment programs. JICA's technical assistance to support the preparation of a national sewerage master plan is a first step. In principle, development partners could coordinate to identify the number of towns in a group of districts based on the scale of their proposed investment to enable efficient planning, supervision, and construction. Common technical designs and requirements should also be agreed on, including for example, the mandatory disconnection of existing septic tanks. This approach can promote relatively efficient design and a consistent approach to implementation.

85. Development partners such as ADB, JICA, and WBG should remain closely engaged with the government and coordinate among themselves to improve the efficiency and effectiveness of support to the sector. The function and terms of reference of the Development Partners Secretariat coordinated through the WBG office in Colombo should be formalized to strengthen role clarity and advocate active participation of all development partners, including new bilateral donors, in sector working groups. The secretariat should play an active role in organizing periodic meetings with the working groups to share lessons and provide updates on key project developments. In the same vein, participation by development partners in the bimonthly WATSAN Coordination Committee meetings held by the government should also be strongly encouraged. Intersector and interagency coordination should be a priority for the government to enhance infrastructure and create value chains and new modes of service delivery. This provides a sound basis for Sri Lanka to build on the impressive sector achievements of the past decade and meet its WSS Sustainable Development Goals (SDG 6).

2. **A proposed preliminary sector development roadmap**

86. In this joint review, we offer several suggestions in the context of development partner coordination, to support the continued development and improvement of Sri Lanka's WSS sector based on experience gained by the three major development partners over the past decade. Although many sector achievements have been realized such as meeting the MDGs, there are still many that require ongoing coordination effort. Sector policy and institutional reforms in

Sri Lanka have experienced long gestation periods in line with other regions of developing Asia.⁴⁶ These gains must continue to maintain momentum, be adequately supported by government champions, and closely coordinated with development partners if sector goals (including SDGs) are to be achieved in the near future.

87. As noted earlier, this joint review presents an invaluable opportunity for Sri Lanka's WSS sector to benefit from the lessons and findings of the country's three main development partners. In this context, and complementing the perspective offered by recently completed WSS sector evaluations, a preliminary sector development roadmap (Table 4) was suggested after government and stakeholder consultation at the joint mission workshop. The roadmap is a forward-looking framework consolidating a number of lessons and recommendations from this review. It is not intended to be definitive or comprehensive as it is limited to the scope of this review, but offers a summary of the issues identified, which may be used by policymakers and development partners as a sector priority checklist. This can help to: (i) design and review sector policies and institutional reforms, (ii) design future WSS sector projects and interventions, and (iii) serve as a basis for consultation and stakeholder engagement among government policymakers and between development partners. The roadmap could also function as an action plan checklist for the government as part of its reviews of current sector development strategies and plans.

Table 4: Proposed Preliminary Water Supply and Sanitation Sector Development Roadmap

	Key issues	Options to resolve issues	Responsibility
General	Limited collaboration between development partners and government agencies	Key donors to actively participate in WATSAN meetings.	WATSAN Coordination Committee/ Development partners
		Review role of Development Partners Forum and reestablish WSS working group as key coordinating mechanism.	Development partners
	Lack of national legislation	Coordinate intersector consultation to assess the potential for a national water policy (to formalize water use priorities among sector uses).	MCPWS/Government
	Difficulty in improving policy framework	Provide support to policy development based on Sri Lanka's needs and priorities.	Government/ Development partners
		Coordinate discussions with development partners to consider establishing a TA cluster to support medium- to long-term policy and institutional reform measures.	Government/ Development partners
Projects	Inadequate planning	Improve coordination between government agencies in project planning and implementation.	Development partners/WATSAN Coordination Committee
	Frequent implementation delays	Streamline government/development partner procurement processes using consistent and unified processes to the extent possible (e.g., prequalification for equipment suppliers).	Government/ Development partners
		Review/implement requirement for detailed design prior to project commencement.	Development partners/MCPWS
Urban water	High NRW (particularly in Colombo)	Coordinate with development partners to develop common system for reporting	NWSDB

⁴⁶ Independent Evaluation Department. 2015. *Sustainability of Urban Water Supply and Sanitation Operations: Findings and Lessons*. Topical Paper, December 2015. Manila: ADB.

⁴⁷ The proposed preliminary WSS sector roadmap builds on the findings of earlier WSS sector evaluations (e.g., footnote 20) in Sri Lanka, including those identified in the overall joint country case study (para. 4) to which this review contributes.

Key issues		Options to resolve issues	Responsibility
		leakage and improving meter monitoring and replacement.	
	Lack of institutional linkages	Develop regional WATSAN Coordination Committees.	MCPWS/WATSAN Coordination Committee/RSCs
		Improve linkage with other government agencies (e.g., Roads Development Authority) to ensure improved integrated network planning and management.	All relevant agencies
		Map and digitize water and sewerage networks and make available under a common government database.	Municipalities/NWSDB
	Lack of independent regulation	Continue processes to enable introduction of PUC as sector regulator by 2018 (commenced).	Government
	Limited sustainability	Coordinate with development partners to ensure quality is given more consideration in procurement processes for all projects.	NWSDB/other EAs/Development partners
	Uncertain water quality	Review/resolve reasons for difference in NWSDB and Ministry of Health water quality assessments	NWSDB/Ministry of Health
Urban sanitation	Limited piped sewerage	Complete national sewerage master plan (ongoing) which can be used to promote a coordinated approach to identify priority areas for development.	JICA
		Coordinate with development partners on sharing data on optimal sanitation systems to identify appropriate options (e.g., centralized or decentralized wastewater treatment, biogas production).	NWSDB/Development partners
		Develop a long-term program to develop piped sewerage systems in major towns (informed by sewerage master plan under development).	Urban councils/Development partners
	Inadequate septage management	Define program to establish septage management systems in all cities without piped sewerage.	Urban councils/Development partners
Rural water	Limited piped water	Define national program of CBO development and extension of urban piped water to rural communities.	NWSDB or DNCWS/RWS
		Strengthen support program for CBOs including involvement of NGOs in design and implementation.	Projects
	CKDu	With development partners and other external partners, complete study of causal factors of CKDu.	Ministry of Health
		Continue process of establishing Reverse Osmosis plants in CKDu areas or connecting to urban WTPs with support of development partners and other organizations. Review options for rainwater harvesting in CKDu areas.	DNCWS/NGOs
Rural sanitation	Poor quality and coverage of rural sanitation	Coordinate with development partners to develop a common manual of recommended toilet design, including guidance on effective location and management of pit toilets.	NWSDB DNCWS/RWS

Key issues	Options to resolve issues	Responsibility
	Continue to support awareness-raising programs on improving sanitation and hygiene practices.	NWSDB/CMC

CBO = community-based organization, CMC = Colombo Municipal Council, CKDu = chronic kidney disease of unknown etiology, DNCWS = Department of National Community Water Supply, EA = executing agency, JICA = Japan International Cooperation Agency, MCPWS = Ministry of City Planning and Water Supply, NGO = nongovernment organization, NRW = nonrevenue water, NWSDB = National Water Supply and Drainage Board, PUC = Public Utilities Commission, RSC = regional support center of NWSDB, TA = technical assistance, WATSAN = Water and Sanitation, WSS = water supply and sanitation.

Source: Joint review team.

Appendixes

APPENDIX 1: ASIAN DEVELOPMENT BANK PROGRAM, 2007–2016¹

A. Sector Strategy

1. ADB's sector support to Sri Lanka has been guided by 3 Country Partnership Strategies (CPSs): (i) CPS 2004–2008, (ii) CPS 2009–2011, and (iii) CPS 2012–2016.² These strategies have demonstrated a generally consistent approach over the past 10 years. The program was designed to assist the government in (i) providing safe water for all, (ii) improving sanitation, (iii) supporting lagging and conflict areas, and (iv) promoting rational policy development. Following the difficulties experienced by the 2 policy-focused technical assistance (TA) projects in the 2000s and noncompliance with policy-oriented loan covenants under Third Water Supply and Sanitation Project,³ the CPS 2009–2012 made little mention of policy change, while few covenants directed towards policy change were included in loans including and following the Secondary Towns and Rural Community-Based Water Supply and Sanitation Project.⁴ The CPSs do not mention the chronic kidney disease of unknown etiology (CKDu) problem, which is reported to have been prevalent in the North Central province for over 20 years.

2. The only project approved during the third CPS period (2012–2016) was the Greater Colombo multitranches financing facility (MFF). While ongoing projects including the Dry Zone Urban Water and Sanitation Project⁵ and the Jaffna and Kilinochchi Water Supply and Sanitation Project⁶ address water supply issues in lagging and conflict areas, most of the program is now Colombo-focused. Although the needs of Colombo as a major international and business center are recognized, the loss of focus on regional and rural areas is a negative in an overall program context. The program as implemented does not therefore fully align with the objectives of CPS 2012–2016, an aspect that will need to be addressed in the CPS 2017–2020.

3. While the CPS 2012–2016 indicated that it would support reform in the sector, in practice, little has been achieved. However, the focus of the ongoing MFF does respond to CPS objectives relating to reducing nonrevenue water (NRW) in Colombo. Tranche 3 will support the construction of wastewater treatment plants in Colombo, which will be developed under public-private partnership (PPP) arrangements (design-build-operate for 18 years), which go some way toward meeting the private sector involvement objectives. However, full PPP will require the private partner to invest in the project, and mechanisms for this have not yet been developed.

4. ADB loan projects in the water supply and sanitation (WSS) sector that were approved or completed during the review period were consistent with the government's sector strategies and development objectives. At mid-2017, 5 TA projects and 5 loan/grant projects had been closed.

¹ This portfolio analysis benefited from the recently completed water and sanitation sector evaluation completed under the ADB CAPE for Sri Lanka (footnote 20), which provided useful context and evaluation findings to inform the joint review.

² ADB. *Country Partnership Strategies 2004–2008, 2009–2011, 2012–2016*. Manila.

³ ADB. 1997. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Democratic Socialist Republic of Sri Lanka for the Third Water Supply and Sanitation Project*. Manila.

⁴ ADB. 2003. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Democratic Socialist Republic of Sri Lanka for the Secondary Towns and Rural Community-Based Water Supply and Sanitation*. Manila.

⁵ ADB. 2008. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Democratic Socialist Republic of Sri Lanka for the Dry Zone Urban Water and Sanitation*. Manila.

⁶ ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Democratic Socialist Republic of Sri Lanka for the Jaffna and Kilinochchi Water Supply and Sanitation*. Manila.

B. Portfolio

5. Loans, grants, and TA projects approved and/or implemented over the study period are listed in Table A1.1 and A1.2, respectively. There were 10 WSS loans/grants or groups of loans/grants, and a number of them also included supplementary financing agreements. The \$300 million MFF relating to WSS in Greater Colombo, includes 3 tranches—2 under NWSDB and 1 under Colombo Municipal Council (CMC), to be implemented during 2012–2020. In addition, there were 3 multisector loans with water sector components.

Table A1.1 Water Supply and Sanitation Technical Assistance Projects
(Approved or Closed, 2007–2016)

Approval Year	TA Projects	Name	Type	Amount (\$ million)	Funding	Year Closed
Advisory and Capacity Development						
1	2002	4049	Strengthening the Regulatory Framework for WSS	AD	0.33	JSF/JFPR 2008
2	2008	7078	Institutional Strengthening for Decentralized Service Delivery in the Water Sector	AD	0.75	TASF 2011
3	2009	7320	Supporting Capacity Development for Wastewater Management Services in Colombo	CD	0.65	TASF 2011
4	2012	8206	Capacity Development for Nonrevenue Water Reduction	CD	0.20	JSF/JFPR 2014
5	2013	8562	Capacity Development for Project Implementation	CD	0.50	TASF 2017
6	2014	8835	Institutional Development of National Water Supply and Drainage Board	CD	1.00	TASF ongoing
7	2014	8733	Wastewater Management Improvement in Colombo Municipal Council	CD	0.50	TASF ongoing
Total					3.93	

AD = advisory, CD = capacity development, JFPR = Japan Fund for Poverty Reduction, JSF = Japan Special Fund, TA = technical assistance, TASF = TA Special Fund.

Note: The TA projects listed in the table are those approved and/or implemented during 2007–2016. However, the total amount of 6 TA projects approved from 2007 is \$3.6 million, with \$3.4 million net amount for water supply and sanitation components.

Source: Asian Development Bank.

6. ADB's lending program has supported the corporate objectives of the National Water Supply and Drainage Board (NWSDB), which is a responsive development partner. It has shown flexibility in approving reasonably timely additional financing in relation to the frequent time and cost overruns experienced in its WSS projects. These overruns have been one of the weakest features of the program, and while excuses can be made for severe under-budgeting in the Sri Lankan political and economic context, there could have been more learning from past mistakes, so that the need for additional financing could have been reduced or eliminated in later projects.

Table A1.2 Water and Sanitation Sector Loans and Grants Approved or Closed, 2007–2016

Approval Year ^a	Loan/Grant Number	Project Title	Funding	Amount (\$ million) ^c	Year Closed
1	1997	1575	Third Water Supply and Sanitation	ADF	83.1 2008
2	2003	1993/2275/ 2276/2757 ^b / 2758 ^b	Secondary Towns and Rural Community-Based Water Supply and Sanitation (Secondary Towns)	ADF	137.9 2013
3	2005	2201	Local Government Infrastructure Improvement Project	ADF	4.8 2015
4	2008	2477/0129/ 0130/2977	Dry Zone Urban Water and Sanitation	ADF/ WFPF	125.0
5	2009	2557/2558	Greater Colombo Wastewater Management	OCR	100.0
6	2010	2626	Conflict Affected Region Emergency Project	OCR	32.9 2017
7	2010	2710/2711	Jaffna and Kilinochchi Water Supply and Sanitation	OCR/ADF	90.6

Approval Year ^a	Loan/Grant Number	Project Title	Funding	Amount (\$ million) ^c	Year Closed	
8	2011	9154	Improving Community-Based Rural Water Supply and Sanitation in Post-Conflict Areas of Jaffna and Kilinochchi	JFPR	2.0	2017
9	2011	2790	Local Government Enhancement Sector Project and extension	ADF	119.0	
10	2012	2947 ^b /2948 ^b 3029 ^b /3030 ^b / 3348 ^b	Greater Colombo Water and Wastewater Management Improvement Investment Program ^d	OCR/ADF	300.0	
Total					995.3^e	

ADF = Asian Development Fund, JFPR = Japan Fund for Poverty Reduction, OCR = Ordinary Capital Resources, WFPF = Water Financing Partnership Facility (Netherlands).

Notes:

^a Reflects the approval year of the first approved loan for projects supported by two or more loans.

^b Approval year: For Loans 2757/2758 – 2011; For Loans 2947/2948 (Tranche 1) – 2012; For Loans 3029/3030 (Tranche 2) – 2013; For Loan 3348 (Tranche 3) – 2016.

^c Including secondary loans and additional financing; Loan 2626 was \$150 million, with \$32.9 million for water supply and sanitation (WSS) components. Reflects the net amount for WSS components.

^d The multitranche financing facility has 3 tranches.

^e The projects listed in the table are those approved and/or implemented during 2007–2016. However, the total amount of 8 projects approved during the period is \$907.4 million.

Source: Asian Development Bank.

7. **Project costs and timing.** The loan period included in the report and the recommendation of the President to the Board, and planned and actual project cost (including loans, cofinancing, and government/beneficiary costs) are summarized in Table A1.3. Excluded from the table are the multisector loans and Greater Colombo MFF Tranche 2, which had only commenced in 2016. The Water Resource Management Project⁷ was cancelled after limited implementation.

8. The average project cost for loans approved or completed during the study period was \$150 million, indicating overruns averaging close to 60%. Cost overruns were generally high, between 26% and 66%, however the Secondary Towns project overran by an exceptional 196%. There are many reasons for the large cost overruns compared with those in most other countries, such as: (i) the resurgence of conflict (2004–2007) limiting access to sites and making design difficult; (ii) the 2004 tsunami, which besides causing damage to infrastructure in the eastern and southern regions, also increased demand for reconstruction materials and labor; and (iii) the end of the conflict (in 2009) following which there was great demand for construction expertise and materials, which led to a major price hike. Project implementation issues associated with procurement processes and the performance of contractors also added to costs and led to delays.

⁷ ADB. 2000. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Democratic Socialist Republic of Sri Lanka for the Water Resources Management Project*. Manila.

Table A1.3: Project Costs and Duration

Project loan number	Effectiveness Date	Project cost (\$ million)			Period (months)		
		Planned	Actual	Overrun	Planned	Actual	Overrun
Loan 1575	17 Jul 1998	121	153	26%	85	123	45%
Loan 1993	21 Nov 2003	86	255	196%	71	135	90%
Loan 2477	13 Nov 2009	113	153	35%	56	87	54%
Loan 2557	9 Apr 2010	117	161	38%	64	88	38%
Loan 2710	6 May 2011	165	274	66%	76	99	30%
Loan 2947	25 Sep 2013	341	341	na	70	70	na
Total cost/Average period		943	1,337	72%	70	100	43%

na = not available.

Note: Agence Française de Développement (AFD) costs in the Jaffna and Kilinochchi Water Supply and Sanitation Project amounting to \$40 million were withdrawn because of project redesign. For the Greater Colombo MFF, the cofinancing amount is estimated at \$101 million.

Source: Asian Development Bank Independent Evaluation Department.

9. Time overruns of between 38% and 90% were experienced, with the Secondary Towns and Rural Community-Based Water Supply and Sanitation Project again the worst performing one.⁸ The cost and time overruns indicate that the program was inefficient from a process perspective. In addition to the factors leading to the cost overruns, delays in recruiting consultants and the requirement of cabinet approval for contracts over \$3 million, further contributed to the delays.

Table A1.4: Targets and Achievements for Selected Water Supply and Sanitation Projects

Project loan	Water supply (hh)		Sanitation (hh)		Cost (\$ million)	Cost/hh (\$ million)
	Target	Achievement	Target	Achievement		
Loan 1575	180,000	293,400	120,000	81,600	153	408
Loan 1993	187,500	127,300	32,900	22,500	255	1,753
Loan 2201	6,000	5,142	1,400	1,461	61	568
Loan 2477	50,000	na	25,000	NA	153	2,177
Loan 2557			148,000 ^a	NA	161	1,088 ^b
Loan 2710 ^c	60,000	na	20,000	NA	274	3,425
	127,000					
	3,200					
Loan 2947	sp	na			137	958
Total New	610,500					
Rehabilitated	143,000	425,842	360,300	105,561	1,198	

hh = household, MFF = multitranché financing facility, na = not available, WWM = wastewater management, WSS = water supply and sanitation, hh = household (or connection), sp = stand post

^a Number of beneficiaries estimated at 651,000, equivalent to about 148,000 households based on Department of Census & Statistics data. Total connections estimated at 51,000 domestic and 11,000 non-domestic expanding at about 1% per year (RRP Supplementary Appendix G – Economic Analysis). Other residents will benefit from the improved environment.

^b Mainly upgrading, thus cheaper than new construction.

^c The project has been delayed because of the inability to secure access to a water source. A revised project scope incorporating the construction of a desalination facility in Jaffna is currently proceeding.

Source: Asian Development Bank Independent Evaluation Department.

10. The cost and time overruns necessitated additional financing in several projects, through loans and government funding (Table A1.3). This was particularly evident in 2 projects (footnotes 4 and 5), with one needing 13 years to implement. Despite the cost and time overruns, the completed and near-completed projects have met or have the potential to meet their outcome objectives (Table A1.4). The

⁸ Except Loan 1757 Water Resources Management, which was cancelled; and Loan 2947 Greater Colombo MFF, which is not permitted to overrun.

multisector project on Local Government Infrastructure Movement⁹ is included in the table as it invested in significant WSS infrastructure development.

11. The WSS projects implemented during the review period are expected to provide good quality water to more than 600,000 households and rehabilitate supplies to a further 143,000 (in Colombo), benefiting about 3.2 million people (based on an average household of 4.2 persons) or more than 14% of Sri Lanka's population. This is a major achievement and has made a substantial contribution to the country's excellent performance in relation to the Millennium Development Goals.

C. Summary

12. Water management issues have affected some projects (footnote 5). In Kilinochchi, the refusal of the farming community to allow the project to source drinking water from the Iranamadu Tank led to the need to install an expensive desalination plant (currently being designed as part of revised project scope and additional financing) to provide water during the period prior to the expected delivery of Mahaweli water. The Dry Zone Urban Water and Sanitation Project faced difficulties completing the Per Aru reservoir, because of issues relating to irrigation, environmental safeguards, and resettlement.

13. The demarcation between the Department of Irrigation and NWSDB is a factor constraining effective water resources development, causing problems where policy change toward integrated water resource management is sought. This issue contributed to the failure of the policy objectives of the project (footnote 3), with the inability to comply with loan covenants leading to project cancellation (footnote 7).

14. Despite the focus on PPP in the last three CPSs and NWSDB policy in the early part of the review period, almost no progress was made. Only tranche 3 of the Greater Colombo MFF will attempt a PPP for its WWTPs through the introduction of design-build-operate contracts. PPP has been difficult to implement with respect to water supply in the absence of independent regulation, since private investors require a predictable regulatory environment where tariff changes are driven by analysis of the fiscal environment and not political expediency. Approval of the Public Utilities Commission to act as independent regulator in 2018 is a significant development.

15. The nature of water sector governance in Sri Lanka, with multiple ministries and agencies playing a role, means that stakeholder consultation and engagement is critical for achieving successful outcomes. The lack of support from key political champions and decision makers, or the inability to sustain support during project implementation, has resulted in delays or cost overruns, and in some cases failure to achieve desired outcomes and objectives.

16. The performance and responsiveness of NWSDB and CMC is an important enabling factor for sector development. These agencies have progressively developed valuable technical and project implementation capacity during the review period. The ongoing engagement and responsiveness of ADB in the sector is another enabling factor that contributed to effective implementation of the program. ADB persisted in undertaking feasibility studies during the conflict period when other donors stayed away. Thus, many projects could undertake implementation activities in the period immediately following the end of the conflict in 2009, with significant benefits flowing to communities much earlier than would otherwise have been the case.

⁹ ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Democratic Socialist Republic of Sri Lanka for the Local Government Infrastructure Improvement Project*. Manila.

APPENDIX 2: JAPAN INTERNATIONAL COOPERATION AGENCY PROGRAM, 2007–2016

A. Sector Strategy

1. Japan International Cooperation Agency's (JICA's) Country Analytical Work¹ has focused on three issues: (i) expansion of water supply improvement in urban areas and establishing new systems in rural areas, (ii) contribution to reducing nonrevenue water and improvement of management efficiency of the National Water Supply and Drainage Board (NWSDB), and (iii) identification of sanitation improvement priorities through the Project for the Strategic Master Plan under Sewerage Sector.

1. Water supply improvement

2. Urban water supply improvement has a long history of JICA assistance. JICA is now shifting its assistance to: (i) expansion of water supply in urban area (including the metropolitan area) to deal with increased water demand caused by urbanization and population growth and (ii) establishment of new water supply schemes in rural areas to expand piped water supply coverage and improve living conditions.

2. Reducing NRW and improving management efficiency of NWSDB

3. Regarding nonrevenue water (NRW), JICA plans to make use of its various assistance schemes. Replacement and/or rehabilitation of dilapidated or damaged pipes that cause water leakage will be conducted in projects with loan assistance, while human resource development to achieve the reduction of NRW will be conducted through technical assistance. Further, technology and know-how (e.g., leakage detection/monitoring and efficient tariff collection systems) to address NRW issues of Japanese small and medium-sized enterprises will be transferred through their verification surveys. These schemes should collaboratively achieve reduction of NRW. Further, JICA will look at management capacity development for NWSDB in terms of asset management and investment planning, while paying attention to water tariff revision under the supervision of the Public Utilities Commission of Sri Lanka to improve management efficiency. The issues mentioned in this section are tackled with the help of Japanese municipalities (waterworks bureaus), utilizing their hands-on experience and technologies.

3. Sewerage improvement

4. JICA is formulating a strategic masterplan under technical assistance that: (i) analyzes Sri Lanka's current status and the challenges of sanitation infrastructure, (ii) identifies necessary measures to address challenges, (iii) identifies priority cities (particularly in urban areas) where offsite sewerage should be constructed, and (iv) evaluates the feasibility of future individual projects. In (iii) above, quantitative criteria such as population density, expected impact on public health and the water environment, and water supply coverage will be developed to help the government identify priorities and expand sewerage connection coverage. Based on the results of the master plan, JICA will support high-priority sewerage infrastructure development projects through loan assistance in urban areas to address (i) the increase in the amount of wastewater as a result of the expansion of water supply because of urbanization and population concentration, (ii) drinking water source pollution, and (iii) public health and living conditions. At the same time, technical assistance will be conducted for (i) water environment monitoring and conservation, (ii) capacity development in operations and maintenance (O&M) for sewerage infrastructure, and (iii) regulatory development for the administration of the sewerage sector. Further, assistance for onsite sanitation facilities will be conducted through a combination of several schemes

¹ JICA. 2012. *Country Analytical Work: Democratic Socialist Republic of Sri Lanka (October 2012) – Chapter 3: Life Environment*. Tokyo.

including the “Verification Survey with the Private Sector for Disseminating Japanese Technologies,” which applies the technologies and/or products of Japanese small and medium-sized enterprises.

B. Portfolio

5. JICA has been active in the WSS sector in Sri Lanka over the past decade. In all, 7 loan projects with a value of roughly \$677 million, 1 grant project of \$11.6 million, and 4 technical cooperation projects were approved or closed during the financial years 2007 to 2016. These projects (Table A2.1) addressed the following areas: (i) improving water supply—expanding the existing water supply facilities in urban areas and introducing new pipe-borne water supply facilities including community-based small-scale facilities in rural areas; (ii) reducing NRW—replacing and repairing aged water pipes in urban areas and providing related technical cooperation; (iii) improving sewerage—implementing high-priority projects while analyzing the current status and challenges through technical assistance for the preparation of a strategic master plan. In addition to the main three areas, JICA implements several other schemes:

- (a) **Public-Private Partnerships**, utilizing technologies of Japanese small and medium-sized enterprises that meet local needs and conditions, such as measures against nonrevenue water, PC tanks, and ozone treatment of industrial wastewater; and
- (b) **Sector Training Program in Japan**, a form of technical cooperation undertaken by JICA, providing knowledge to stimulate people to draw inferences, which is crucial for human resource development, along with other assistance schemes. For Sri Lanka’s water sector, a number of officials from national and local governments have participated and built up necessary knowledge and techniques to apply within their sector.

Table A2.1 JICA loans, grant and technical assistance projects approved or closed, Japan Fiscal Year 2007–2016

Project ID	Type	Project Name	Project Performance (JICA Rating)	Status	Approval Date	Planned/ Actual Closing Date	Actual/ Planned Loan/Grant for WSS (\$ million)	
1	SL-P73	Loan	Lunawa Environment Improvement and Community Development Project	Satisfactory	Closed	28 Dec 2001	1 Apr 2010	52.2
2	SL-P90	Loan	Water Sector Development Project		Closed	28 Mar 2007	1 Jun 2015	113.7
3	SL-P93	Loan	Water Sector Development Project II		Closed	29 Jul 2008	1 Nov 2015	65.8
4	SL-P98	Loan	Eastern Province Water Supply Development Project		Closed	1 Mar 2010	1 Jul 2017	38.5
5	SL-P99	Loan	Kandy City Wastewater Management Project		Active	26 Mar 2010	1 Oct 2017	150.5
6	1161310	Grant	The Project for Rehabilitation of Killinochchi Water Supply Scheme		Closed	6 Mar 2012	31 Oct 2017	11.6
7	SL-P110	Loan	Anuradhapura North Water Supply Project Phase 1		Active	14 Mar 2013	1 Feb 2018	65.1
8	SL-P115	Loan	Anuradhapura North Water Supply Project Phase 2		Active	17 Nov 2016	1 Mar 2022	191.2

Project ID	Type	Project Name	Project Performance (JICA Rating)	Status	Approval Date	Planned/ Actual Closing Date	Actual/ Planned Loan/Grant for WSS (\$ million)	
9	TA-1	TA	Water and Sanitation Sector Advisor		Closed	1 Mar 2009	1 Sep 2010	na
10	TA-2	TA	The Capacity Development Project for NRW Reduction in Colombo City	Achieved objectives and attained outcome.	Closed	1 Apr 2009	1 Sep 2012	na
11	TA-3	TA	Project for Monitoring of the Water Quality of Major Water Bodies		Active	1 Mar 2015	1 Feb 2018	na
12	TA-4	TA	Project for the Strategic Master Plan under Sewerage Sector		Active	1 Sep 2015	1 Mar 2017	na

JICA = Japan International Cooperation Agency, na = not available, NRW = nonrevenue water, TA = technical assistance, WSS = water supply and sanitation.

Source: JICA's Evaluation Department.

C. Summary

1. Water supply improvement

6. JICA has been supporting water supply improvement in urban areas such as Greater Colombo and Greater Kandy through loans, as well as in other cities such as Nuwara Eliya, Matara, and Kilinochchi, through grant aid. Among them, the project in Kilinochchi intends to help Sri Lanka recover from the conflict by restoring and upgrading the water supply facility that had suffered serious damage. JICA had also provided water supply experts to support NWSDB in formulating new projects and project implementation.

7. A 2003 evaluation² confirmed that a change in source from wells to tap water was beneficial for socially vulnerable groups such as the elderly, the disabled, and people affected by illness. Also, many women felt that their livelihood had improved. On the other hand, it was confirmed that in addition to strengthening its technical capacity, it is important for NWSDB to upgrade its capacity in corporate planning including cost-benefit assessment. To assist in this, JICA has been supporting the revision of NWSDB's corporate plan, together with continuous support in water supply systems, through the Water Sector Development Project (II) (SL-P93).

8. The evaluation report of the loan project, "Kalu Ganga Water Supply Project for Greater Colombo," states that the project took more than 2 years to begin selection of consultants, and this became the main cause of the substantial delay in the project implementation period. Similar situations have occurred in past Japanese official development assistance (ODA) loan projects in Sri Lanka. Therefore, when implementing similar projects in the water sector in Sri Lanka, attention needs to be paid to time management when hiring consultants. Measures for "expediting the procurement process," which are taken by JICA's Sri Lanka Office, should be continued, along with efforts to further enhance the project management capacity of the executing agency.

2. Reducing nonrevenue water

² JICA. 2003. *Impact Evaluation of Greater Colombo Water Supply Project: Developing a New Framework*. Tokyo.

9. Nonrevenue water (NRW) in Matara decreased significantly from 40% in 2003 (before the project) to 21% in 2009 after the JICA-funded project for Improvement of the Water Supply System in Matara District, which implemented nonrevenue water countermeasures. JICA also provided technical assistance: “The Capacity Development Project for Nonrevenue Water Reduction in Colombo City” for 3 years from 2009. Measures for NRW reduction were implemented in two pilot areas, so that NWSDB’s system for NRW reduction could be established and technical skills improved. In addition, the “Water Sector Development Project (II)” (SL-P93) rehabilitated old water pipes with a total length of 56 km, and drafted a master plan targeting NRW reduction.

10. The evaluation report of JICA’s technical cooperation project, “The Capacity Development Project for Nonrevenue Water Reduction in Colombo City,” stated that since the Japanese loan project, Water Sector Development Project II, was concurrently in progress in two pilot sites, comparative measurement of the effectiveness of different NRW reduction techniques in the two pilot sites was possible; (i) pipe replacement works requiring other source of finance than the regular budget and (ii) O&M activities undertaken within the regular budget. Through the project activities, a list of priority actions for reducing NRW in Colombo City was established. A JICA-supported master plan “Update, Institutional Development, and Nonrevenue Water Engineering Study” was conducted in parallel with this project, which provided useful synergies. These projects were instrumental in implementing NRW reduction activities, building on related ADB projects being implemented at the time. Efficient scheduling and close coordination of the projects yielded significant synergies to address a shared outcome.

3. Sewerage improvement

11. At this stage, there is only one sewerage improvement project, “Kandy City Wastewater Management Project” (SL-P99). In sewerage improvement, residents’ involvement is essential in the civil works area. JICA sent Japan Overseas Cooperation Volunteers (JOCV) to the project office. They are working on awareness-raising activities for the poor together with the Kandy municipal office for community development to promote understanding of the project and improve the residents’ living conditions.

12. The main conclusions that can be drawn from the review of JICA-funded projects in Sri Lanka over the past 10 years are:

- (i) JICA has been implementing several urban water supply projects, mainly in Colombo and Kandy, which are the largest and second-largest cities in Sri Lanka, respectively. In the last 10 years, rural water supply projects have also been implemented, leading to an expansion of coverage and improvement in the living conditions of the people in Sri Lanka.
- (ii) These projects have improved the urban environment and have supported the provision of basic infrastructure for economic activities in Sri Lanka.
- (iii) The NRW problem has been tackled by technical assistance including provision of know-how and technology by Japanese municipalities (waterworks bureaus) and small and medium-sized enterprises. This has improved the efficiency of urban water supply schemes constructed/expanded under JICA projects, and also that of the management of NWSDB.
- (iv) The focus of investment will be shifted to wastewater to address problems such as increased wastewater volumes accompanying expansion of water supply, deterioration of living environment caused by rapid urbanization and economic activities.
- (v) Aside from infrastructure issues, the soundness of NWSDB management remains a challenge for sustaining the effectiveness of past projects, and promoting the implementation of sewerage projects, which are normally less profitable than those of water supply. JICA will continue to support NWSDB management through technical assistance and coordinate with the government and other development partners to collaborate and share information for achieving sector outcomes.

APPENDIX 3: WORLD BANK GROUP PROGRAM, 2007–2016

A. Sector Strategy

1. **The World Bank Group’s (WBG) Strategy for Water Supply and Sanitation.** The WBG’s strategy for water and sanitation has evolved with its role in global development and changing client needs. The core elements of this strategy over the past 3 decades are summarized below:

- (i) **1980s:** WBG financed significant investments in water services infrastructure development, but there was a realization that engineering-centric solutions were not adequate to address the environmental, social, and financial sustainability issues identified.
- (ii) **1990s:** The focus shifted to sustainable management of water and sanitation services. Greater attention was paid to private sector participation in the water sector. In addition, the Bank’s 1993 Water Resources Management Policy Paper¹ highlighted the “Dublin Principles” of a demand-based approach, based on what users wanted and were willing to pay for, and applying the subsidiarity principle of decentralizing water supply and sanitation (WSS) responsibilities to the lowest appropriate level. By 1995, the Millennium Development Goals had been developed, and these reinforced the focus on increasing access to basic WSS services and the importance of coordinated efforts with other development partners.
- (iii) **2000s:** The Bank’s approach recognized the need to balance infrastructure development for all water stakeholders with an improvement in the management of services. The 2003 Water Resources Strategy² called for integrated water resources management and appropriate staffing for this effort. The strategy also highlighted the possible impact of climate change on the sector. It stressed the need to innovate for better WSS service delivery and financing, and the need to improve the performance of utilities and user associations. The International Finance Corporation (IFC) targeted water, waste water, and sanitation as a strategic sector. In addition to direct investments, IFC pioneered subnational finance transactions, and engaged in advisory work to structure public-private partnerships in the water sector (PPPs).³; and
- (iv) **2010s:** The IFC’s roadmap for FY2011–2013 included water as an important theme with links to water, energy, food, and climate change.⁴ In 2012, water was added to the IFC’s five strategic areas of focus and growth.⁵ In the same year, informed by the 2030 Water Resources Group, IFC launched its cross-sectoral Water Sector Business Plan covering demand- and supply-side opportunities.⁶

2. The World Bank’s 2008 Sustainable Infrastructure Action Plan reinforced the principles from earlier policy documents, but with a greater recognition of the relationship between the various water-related subsectors (irrigation, hydropower, and environmental services), and emphasis on targeting the poor and facilitating public-private partnerships. The focus on outcomes included designing improved sectoral governance in the least developed countries through the WBG Governance and Anti-Corruption Implementation Plan, and improved results measurement of infrastructure services in all projects with WBG engagement. The IFC leveraged private finance through investment and advisory operations and

¹ World Bank. 1994. *Water Resources Management Policy Paper*. Washington D.C.

² World Bank. 2004. *Water Resources Sector Strategy: Strategic Directions for World Bank Engagement*. Washington D.C.

³ International Finance Corporation. 2007. *IFC Strategic Directions, FY2008–2010: Creating Opportunity*. Washington D.C.

⁴ International Finance Corporation. 2010. *IFC Road Map Fiscal Year 11–13*. Washington, D.C.

⁵ International Finance Corporation. 2012. *IFC Road Map Fiscal Year 13–15*. Washington, D.C.

⁶ The business plan covers water demand management and efficiency opportunities, including nonrevenue water reduction, innovative water- and energy-efficient technologies such as low energy desalination, and wastewater treatment and reuse, as well as supply-side opportunities such as distributed services and solid waste management.

via innovative instruments in the water sector (e.g., Infraventures⁷ and PPPs with public sector and municipal governments). As part of its infrastructure focus, the World Bank's Multilateral Investment Guarantee Agency guarantees supported PPPs and investments in subsovereign WSS projects.

3. **Positioning of Water and Sanitation in the Country Strategies for Sri Lanka.** Water and Sanitation has consistently been one of the key priorities in the World Bank's Country Strategies over the past decade, focusing on rural areas and the conflict-affected northern and eastern regions. The positioning of water and sanitation in the past 3 Country Assistance Strategies (CAS) is summarized below:

- (i) CAS 2003 has three pillars: (i) peace, (ii) growth, and (iii) equity. Water supply is one of the key areas for support under the pillars of peace and equity, focusing on providing resources for water supply in the conflict-affected northern and eastern regions and for the poor.
- (ii) CAS 2008 has three pillars: (i) supporting growth and poverty reduction, (ii) addressing the causes and consequences of conflict, and (iii) strengthening transparency and accountability. The first pillar has three strategic objectives: (a) expanding economic opportunities in lagging regions, (b) improving the investment climate and competitiveness, and (c) enhancing quality services and accountability. Water supply is one of the major areas for support under the strategic objective (i) expanding economic opportunities in lagging regions, focusing on securing water supply for the rural areas and the conflict-affected North Eastern region; and
- (iii) CAS 2012 also has 3 major focus areas: (i) facilitating sustained private and public investment, (ii) supporting structural shifts in the economy, and (iii) improving living standards and social inclusion. Water and sanitation is positioned in the third area, focusing on increasing quality of services, and expanding social inclusion and equitable access.

B. Portfolio

4. WBG has been one of the major players in the WSS sector in Sri Lanka with commitments of \$573 million through dedicated projects in the sector, or components of projects in various sectors. The projects have covered urban and rural water and sanitation and rehabilitation in the wake of natural disasters and conflict. The WBG has also provide significant nonlending support for infrastructure assessments, PPP frameworks, and urban policy covering water and sanitation among other sectors.

Table A3.1 World Bank Lending for Water Supply and Sanitation, Approved or Closed, 2007–2016

Dedicated WSS/Other	Project ID	Project Name	Status	Approval FY	Closed	Project Cost (\$ million)	Commitment (\$ million)	Net for WSS (\$ million)
Other	P010517	Private Sector Infrastructure Development	Closed	1996	2007	232.0	77.0	1.5
Dedicated	P058067	Second Community Water	Closed	2003	2011	62.4	39.8	27.9
Other	P077586	Economic Reform TA	Closed	2003	2008	18.8	15.0	1.5
Other	P074872	Community Dev & Livelihood	Closed	2004	2010	69.8	51.0	10.2
Other	P100390	Puttalam Housing Project	Closed	2007	2012	34.2	32.0	11.5
Other	P093132	Dam Safety & Water Resources Planning	Active	2008		69.3	65.3	47.0
Other	P087145	2nd Community Development and Livelihood Improvement	Closed	2010	2015	105.0	75.0	7.5
Other	P113036	N&E Local Services Improvement	Active	2010		86.0	50.0	7.5
Other	P118870	Emergency Northern Recovery	Closed	2010	2014	65.0	65.0	11.7

⁷ The IFC Global Infrastructure Project Development Fund.

Dedicated WSS/Other	Project ID	Project Name	Status	Approval FY	Closed	Project Cost (\$ million)	Commitment (\$ million)	Net for WSS (\$ million)
Other	P122735	Metro Colombo Urban Development	Active	2012		320.6	213.0	159.8
Other	P130548	Sri Lanka Strategic Cities Development	Active	2014		192.1	147.0	51.5
Other	P146314	Improving Climate Resilience	Active	2014		110.0	110.0	60.5
Other	P150140	North East Local Services Improvement	Active	2014		20.3	20.3	5.1
Dedicated	P147827	Water and Sanitation Improvement	Active	2015		183.9	165.0	165.0
Non-core	P152623	North East Local Services Improvement	Active	2016		-	20.0	5.0
Total Nonlending						1,569.4	1,145.4	573.2
	P070311	CDM TA for Sri Lanka	Closed					
	P112928	Infrastructure Assessment	Closed					
	P117210	Assessment Secondary Cities SL	Closed					
	P117210	EP and NP	Closed					
	P122112	SL PPP framework development	Closed					
	P128031	Urban Policy Note	Closed					

CDM = clean development mechanism, EP = Eastern Province, FY = fiscal year, ID = identification, NP = Northern Province, PPP = public-private partnership, SL = Sri Lanka, TA = technical assistance, WSS = water supply and sanitation.

Source: Independent Evaluation Group, World Bank.

C. Summary

5. A summary of the key findings and lessons from WBG project experience of water and sanitation (dedicated project Second Community Water and Supply Project) is provided below:

- (i) **Lack of continuity in monitoring and evaluation and its utilization by an implementing agency beyond project completion undermines the sustainability of development outcomes.** In this project, the monitoring function for rural water schemes weakened after project completion. Currently, the Rural Water Supply Division of the National Water Supply and Drainage Board maintains a rural water schemes database. However, there is no clear evidence that this database is shared with relevant institutions or used to prioritize critical support needs for community-based organizations (CBOs) managing water supply schemes.
- (ii) **Technical soundness of initial design and quality of construction affect CBO performance.** In this project, poor CBO performance in sampled cases could be traced to poor technical design, resulting from several factors: (i) insufficient time and resources spent on identifying a suitable water source; (ii) lack of local knowledge or capacity of consulting firms; and (iii) insufficient oversight by technical experts such as NWSDB staff. These factors often led to water source depletion, water quality problems, and frequent repair needs.
- (iii) **Strong and consistent institutional and technical support is needed to achieve sustainable service delivery in CBO schemes.** In this project, CBOs were expected to be in charge of construction and management of rural water supply schemes. However, technical aspects regarding operation and maintenance and financial supervision were often beyond the capacity of the CBO members. While the units of the Rural Water Supply Division of the NWSDB and Pradeshiya Sabhas are providing support in this regard, there appears to be great variation in the capacity and interest among these units to carry out this function, depriving needy CBOs of timely support in some cases, and affecting their performance; and
- (iv) **Proactive and adaptive project supervision in response to exogenous events can help safeguard project efficacy.** In this project, there are positive and negative examples: on

the one hand, the task team responded nimbly to the tsunami by taking action, including reallocating some of the funds to an emergency project and changing some project locations; on the other hand, the response was less nimble in taking steps to adjust the project targets to the reduction in available funds and an inflation surge, which affected the project outcome.

APPENDIX 4: LINKED DOCUMENT

The topical paper is part of a wider collaborative case study—*Towards Sustainable Water and Sanitation Services in Sri Lanka: Beyond Sustainable Development Goals to Supporting the National Economic Vision*—prepared by Independent Evaluation Department of Asian Development Bank, the Independent Evaluation Group of the World Bank Group, and the Evaluation Department of Japan International Cooperation Agency.

Accessible at: <https://www.adb.org/sites/default/files/linked-documents/SRI-WSS-Joint.pdf>