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Report No: PAD1223

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 117.4 MILLION
(US$ 165.0 MILLION EQUIVALENT)

TO THE

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

FOR A

WATER SUPPLY AND SANITATION IMPROVEMENT PROJECT

June 1 , 2015

Water Global Practice
Sri Lanka Country Management Unit
South Asia Region

CURRENCY EQUIVALENTS

Exchange Rate Effective Date: April 30, 2015

Currency Unit	=	Sri Lankan Rupee (LKR)
LKR133	=	US$1
US$ 1.40642	=	SDR 1

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

CAS	Country Assistance Strategy
CBOs	Community Based Organizations
CBSL	Central Bank of Sri Lanka
CKDu	Chronic Kidney Disease of Unknown Etiology
CDD	Community Driven Development
CPS	Country Partnership Strategy
CSOs	Civil Society Organizations
CWSSP	Community Water Supply and Sanitation Project
DA	Designated Account
DNCWS	Department of National Community Water Supply
DSUs	District Support Units
EA	Environmental Assessment
ERD	External Resources Department
ERR	Economic Rate of Return
EAMF	Environmental Assessment and Management Framework
EWHCS	Estate Workers Housing Cooperative Society
FM	Financial Management
GoSL	Government of Sri Lanka
GRM	Grievance Redressal Mechanism
GRS	Grievance Redressal Services
HIES	Household Income and Expenditure Survey
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICTAD	Institute for Construction Training and Development
ICT	Information, Communication, Technology
IDA	International Development Association
IPs	Indigenous Peoples
IPF	Investment Project Financing
IRR	Internal Rate of Return
ISC	International Support Consultant
IUFRs	Interim Unaudited Financial Reports
JMP	Joint Monitoring Program
LKR	Sri Lanka Rupees
MDG	Millennium Development Goal

MIS	Management Information System
M&E	Monitoring and Evaluation
MoF	Ministry of Finance
MoHIM	Ministry of Health and Indigenous Medicine
MPID	Ministry of Plantation Infrastructure Development
MUDWSD	Ministry of Urban Development, Water Supply and Drainage
NBRO	National Building Research Organization
NCB	National Competitive Bidding
NCWT	National Community Water Trust
NGO	Non-Government Organization
NLTA	Non-Lending Technical Assistance
NPC	National Planning Commission
NPD	National Planning Department
NPV	Net Present Value
NWSDB	National Water Supply and Drainage Board
O&M	Operation and Maintenance
PDI	Project Development Indicators
PDO	Project Development Objective
PE	Procuring Entity
PHDT	Plantation Human Development Trust
PMU	Project Management Unit
PS	Pradeshiya Sabha (Local Government)
PSC	Project Steering Committee
PRIMA	Portfolio Risk Management System
RPCs	Regional Plantation Companies
RWS	Rural Water Supply
RWSS	Rural Water Supply and Sanitation
SAC	Social Audit Committee
SBD	Standard Bidding Document
SLSI	Sri Lanka Standards Institute
SMF	Social Management Framework
SORT	Systematic Operations Risk-Rating Tool
SO	Support Organization
TA	Technical Assistance
VMW	Village Maintenance Worker
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WSS	Water Supply and Sanitation
WUA	Water User Association

Regional Vice President:	Annette Dixon
Country Director:	Francoise Clottes
Senior Global Practice Director:	Junaid Kamal Ahmad
Practice Manager:	Parameswaran Iyer
Task Team Leader:	Shideh Hadian

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Sri Lanka: Water Supply and Sanitation Improvement Project (P147827)

PROJECT APPRAISAL DOCUMENT

SOUTH ASIA

Report No.: PAD1223

Basic Information		
Project ID	EA Category	Team Leader
P147827	B - Partial Assessment	Shideh Hadian
Lending Instrument	Fragile and/or Capacity Constraints [ ]	
Investment Project Financing	Financial Intermediaries [ ]	
	Series of Projects [ ]	
Project Implementation Start Date	Project Implementation End Date	
24-Jun-2015	31-Dec-2020	
Expected Effectiveness Date	Expected Closing Date	
24-Sep-2015	31-Dec-2020	
Joint IFC [No]		

Practice Manager	Senior Global Practice Director	Country Director	Regional Vice President
Parameswaran Iyer	Junaid Kamal Ahmad	Francoise Clottes	Annette Dixon

Borrower: DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA			
Responsible Agency: Ministry of Urban Development, Water Supply and Drainage			
Contact:	Mr. K. G. Hettiarachchi	Title:	Secretary Ministry of Urban Development, Water Supply & Drainage
Telephone No.:	94 11 2177213	Email:	secretary@watermin.gov.lk

Project Financing Data (in USD Million)					
[ ]	Loan	[ ]	IDA Grant	[ ]	Guarantee
[X]	Credit	[ ]	Grant	[ ]	Other

Total Project Cost:	183.9	Total Bank Financing:	165.00
Financing Gap:			

Financing Source	**Amount**
BORROWER/RECIPIENT	5.0
International Development Association (IDA)	165.0
Local Communities	13.9
Total	**183.9**

Expected Disbursements (in USD Million)

Fiscal Year	2016	2017	2018	2019	2020	2021	2022	2023		
Annual	10.00	25.00	35.00	40.00	30.00	25.00	00.00	0.00		
Cumulative	0.00	35.00	70.00	110.00	140.00	165.00	00.00	0.00		

Institutional Data

Practice Area / Cross Cutting Solution Area

Water

Cross Cutting Areas

[ ] Climate Change

[ ] Fragile, Conflict & Violence

[X] Gender

[ ] Jobs

[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits percent
Water, sanitation and flood protection	General water, sanitation and flood protection sector	100		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Rural development	Other rural development	75
Urban development	City-wide Infrastructure and Service Delivery	25
Total		100

Proposed Development Objective(s)

The development objectives of the project are to increase access to piped water services and improved sanitation in selected districts; and to strengthen the capacity of associated institutions.

Components	
Component Name	**Cost (USD Millions)**
Component 1 - Water Supply and Sanitation Infrastructure	160.2
Component 2 - Institutional Capacity Strengthening	6.4
Component 3 - Sectoral Technical Assistance	6.1
Component 4 - Project Management Support	11.2
Total Project Costs	183.9

Systematic Operations Risk-Rating Tool (SORT)	
Risk Category	**Rating**
1. Political and Governance	Substantial
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	Substantial
9. Other	
OVERALL	**Substantial**

Compliance		
Policy		
Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes [ ]	No [X]
Have these been approved by Bank management?	Yes [ ]	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	X	
Natural Habitats OP/BP 4.04	X	
Forests OP/BP 4.36		X
Pest Management OP 4.09		X
Physical Cultural Resources OP/BP 4.11		X
Indigenous Peoples OP/BP 4.10		X

Involuntary Resettlement OP/BP 4.12	X	
Safety of Dams OP/BP 4.37		X
Projects on International Waterways OP/BP 7.50		X
Projects in Disputed Areas OP/BP 7.60		X

Legal Covenants

Name	Recurrent	Due Date	Frequency
Project Steering Committee		July 1, 2015	

Description of Covenant
Establishment of a Project Steering Committee which shall be maintained throughout the implementation of the Project.

Name	Recurrent	Due Date	Frequency
Project Management Unit		July 1, 2015	

Description of Covenant
Establishment of a Project Management Unit, which shall be maintained throughout the implementation of the Project, and staffed with competent personnel in adequate numbers, with qualifications, experience and terms of reference acceptable to the Association.

Name	Recurrent	Due Date	Frequency
Safeguards Compliance		Ongoing	

Description of Covenant
The Recipient shall ensure that the Project is carried out in accordance with the Safeguards Instruments as described in Section I of Schedule 2 of the Financing Agreement

Conditions

Source Of Fund	Name	Type

Description of Condition

Team Composition

Bank Staff

Name	Title	Specialization	Unit
Cecilia Belita	Senior Program Assistant	Senior Program Assistant	GWADR
Darshani De Silva	Environmental Specialist	Environmental Specialist	GENDR
Shideh Hadian	Senior Infrastructure Economist	Task Team Lead	GWADR
Minerva Espinosa-Apurada	Program Assistant	Program Assistant	GWADR

Sashikala Krishani Jeyaraj	Program Assistant	Program Assistant	SACSL
William D. Kingdom	Lead Water and Sanitation Specialist	Acting Practice Manager until April 30, 2015	GWADR
Nadeera Rajapakse	Consultant	Consultant	GENDR
Mohamed Ghani Razaak	Senior Social Development Specialist	Senior Social Development Specialist	GSURR
Sunethra Chandrika Samarakoon	Procurement Specialist	Procurement Specialist	GGODR
Mili Chachyamma Varughese	Operations Analyst	Economic Analysis	GWASS
G. W. Anjali U. Perera Vitharanage	Procurement Analyst	Procurement Analyst	GGODR
Bernadeen Enoka Wijegunawardene	Financial Management Specialist	Financial Management Specialist	GGODR
Samantha Prasada Wijesundera	Water & Sanitation Specialist	Water & Sanitation Specialist	GWADR

Non-Bank Staff

Name	Title	City
Andrew Robinson	Water and Sanitation Specialist	Le Fey, France

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Sri Lanka	Districts/GN Divisions	Towns and Villages	Towns and Villages		

I. STRATEGIC CONTEXT

A. Country Context

1. Sri Lanka is a lower middle-income country with a total population of 20.5 million people. Following 30 years of civil war that ended in 2009 Sri Lanka's economy grew at an average 7.5 percent per year during 2010-2013, reflecting a peace dividend and a determined policy thrust towards reconstruction and growth. Sri Lanka's economy is also transitioning from a previously predominantly rural-based economy towards a more urbanized economy oriented around manufacturing and services. In 2013 the service sector accounted for 57 percent of GDP, followed by manufacturing (33 percent), and agriculture (11 percent). Per capita Gross Domestic Product (GDP) reached USD 3,280 in 2013. The Government of Sri Lanka (GoSL) envisions reaching an annual per capita GDP of USD 7,000 by 2020. High growth has translated into shared prosperity with national poverty headcount ratio declining from 15.2 percent in 2006/07 to 6.7 percent in 2012/13. The country is ranked 73rd in Human Development Index indicators in 2014.

2. Sri Lanka averaged fiscal deficits of around 7-8 percent of GDP over the past decade. GoSL has been able to reduce fiscal deficit from 9.9 percent of GDP in 2009 to 5.9 percent 2013. Public debt, which was over 106 percent of GDP in 2002, was reduced to 78 percent by 2013. However, the level of public debt remains high. Budget expenditure on interest payments account for 5 percent of GDP, equally high as capital investments.

3. There has been a tremendous focus on resettling internally displaced people and rebuilding the Northern and Eastern provinces that were most heavily affected and inaccessible during the conflict with the aim to reconnect these provinces and better integrate them economically with the rest of the country. The Government also aims to provide decent and healthy living conditions for every Sri Lankan family by year 2020, which includes among others, access to safe piped water supply to 60 percent of the population from current coverage of 44 percent.

4. Despite all the achievements, Sri Lanka faces several challenges such as: persistent inequalities and pockets of poverty in lagging regions, plight of vulnerable groups including displaced peoples and those working in the Plantation sector, persistent malnutrition across all segments of the population[1], and emergence of a new form of Chronic Kidney Disease of uncertain etiology (CKDu) with public health implications for the country.[2]

B. Sectoral and Institutional Context

5. **Sector Policy and Strategy**. Since 2000 the Government has set out a range of policies covering all aspects of the water and sanitation sector which, taken together, provide a sound framework within which the sector operates. The Government's vision for the water sector is to provide access to safe drinking water for all citizens over the medium term (by 2020) with a particular emphasis on increasing the quality of service (increasing the proportion of people served through piped water connections to 60 percent and tripling coverage by sewerage systems to 7

[1] Malnutrition affects 22 percent of children under the age of five, and is higher in Sri Lanka than in other countries of similar income level.

[2] There is no conclusive report on causes of CKDu but its progress may be exacerbated by drinking water which is hard and high in fluorides.

percent). The government also envisages a sector with improved institutional performance where tariffs are set to ensure cost recovery, and regulatory reforms are introduced, so that there can be greater self-financing of capital works through innovative financing structures. In rural areas there will be a continued focus on community involvement in water supply and greater collaboration between the various actors in the sector including the National Water Supply and Drainage Board (NWSDB) and the local authorities.

6. **Sector Performance.** Sri Lanka has achieved Target 7 of the Millennium Development Goals (MDG) to reduce by half the proportion of people without sustainable access to improved drinking water source and an improved sanitation facility.[3]

7. Drilling down below the national figures, however, highlights some significant variations across the country. The Household Income and Expenditure Survey (HIES) 2011 presents sector data according to sub-sector (Table 1). There are three sub-sectors: Urban Sub-sector (primary and secondary cities/towns and communities with populations above 6,000); Rural Sub-sector (low density village areas); and Estates Sub-sector (Plantations with small yet high density cluster communities). Table 1 shows the decreasing quality of service moving from the urban to the rural areas, and from the rural areas to the estates.

Table 1: Water and Sanitation Access, by Sub-Sector (2010)

Main sub-sectors	Population 2010 ('000s)	Water Supply Access to Improved Sources	Sanitation Access to Imptoved Sanitation
Urban Sub-sector	4,440 (21.5%)	88%	96%
Rural Sub-sector	14,900 (72.2%)	67%	80%
Estate Sub-sector	1,300 (6.3%)	54%	52%

8. Lack of access to improved water supply and sanitation (WSS) has multi-sectoral impacts. Causes of persistent malnutrition include poor hygiene habits and lack of access to clean water as well as affordability of food. Progress in reaching the MDG for malnutrition and child mortality is therefore linked to progress in improving water supply, sanitation and improved hygiene behavior.

9. **Sector Institutions.** Following the election of the new president in early January 2015 the ministerial responsibilities for the sector have been revised and are now as set out in Table 2.

Table 2: Ministries and Their Roles in the Water and Sanitation Sector

Institutions	Responsibilities
Ministry of Finance (MoF)	Formulate overall economic/fiscal development policies and strategies. Allocates funds through the MUDWSD and directly to provinces for WSS service delivery.
Ministry of Urban Development, Water	Formulate policies, laws, regulations and legislations on drinking water and sanitation. Coordinate among sector partners, monitor fund utilization and

[3] The Joint Monitoring Program (JMP) update in 2014 indicates that 93.8% of population has access to improved water and 92.0% has access to latrines, nationwide in 2012 against targets of 83.8%.

Supply and Drainage (MUDWSD)	negotiate for financing. Approve implementation of major and minor development projects and programs.
Ministry of Provincial Councils and Regional Development	Provide supportive services for Provincial and Local Government sectors. Implement policies, plans and programs in respect of provincial councils and local governments. Provide or on-lend grant/loans to local authorities for public utility works.
Ministry of Plantation Infrastructure Development	Improve the socio economic status of the rural community living in the estate plantation sector.
Ministry of Health and Indigenous Medicine	Protect public health through leading the surveillance of health based on water quality measures in collaboration with NWSDB, provincial health authorities and CBOs; and thereby prevent, control and reduce public health burden.

10. In terms of service delivery, the National Water Supply and Drainage Board (NWSDB) under the purview the MUDWSD, is the lead agency providing pipe-borne water for the urban population supplemented by the municipal and local authorities servicing a limited number of secondary cities and towns. Most urban sanitation is on-site but NWSDB provides piped sewerage to the outskirts of Colombo (the Municipal Council is responsible in the core city area).

11. The NWSDB has more than 10,000 employees with 11 Regional Support Centers (RSCs) at the provincial level for overall management, 24 regional offices for operation and maintenance of water supply schemes and 19 District Support Units (DSUs) to provide technical assistance for rural schemes. The key financial indicators for NWSDB show a relatively static overall financial performance with increasing costs being offset by higher tariffs. In general, the service and operational performance of NWSDB is reasonable.

Table 3: Key Performance Indicators for NWSDB, 2006-2013

Indicators	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
Collection ratio (percent)	1.03	0.98	0.99	0.94	1.00	0.99	0.98	0.98
Operating ratio	1.48	1.03	1.03	1.21	1.18	1.39	1.28	1.37
Average tariff (LKR/m^3)	26.09	26.36	31.38	34.00	38.00	40.05	42.11	43.59
Piped water supply coverage (percent)	29.00	30.00	32.00	35.00	39.00	42.00	43.00	45.00
Water availability No. of hours	16.00	17.00	18.00	18.00	20.00	20.00	20.00	20.00
Sewerage coverage (percent)	1.50	1.50	1.50	1.50	1.50	1.50	1.90	1.90
Non-revenue water (percent)	34.00	33.00	32.00	32.00	31.00	30.70	29.90	30.20
Total staff /1,000 connections	8.70	8.20	7.60	7.16	6.60	6.40	6.10	5.80

Source: Head Office of NWSDB.

12. Overall, while the NWSDB has a good track record of delivering quality service, it struggles financially and needs to review its institutional arrangements to ensure it is oriented to meet the ever growing demands made on it.

13. The majority (about 85 percent) of the rural population sources its water supplies from point sources although there are a growing number of piped schemes to meet demand for higher levels of service and to address particular water quality/quantity problems. The piped rural water supply (RWS) schemes are almost exclusively managed by Community Based Organizations (CBOs). Rural sanitation is normally a pit latrine with septic tanks constructed in more densely populated areas. The legal status of the CBOs reveals a blurred picture. Some CBOs are registered as legal

entity, whereas others are not. Where a CBO is not recognized in law as a corporate body, it may not hold property in its name nor does it have the legal backing for the enforcement of the recovery of the charged tariffs. Going forwards, therefore, each CBO should be registered as a legal entity.

14. Until recently the National Community Water Trust (NCWT) provided some limited assistance to the communities operating the rural water supply schemes along with the Pradeshiya Sabha (Local Government) and in some cases the NWSDB. The Trust was established in 2010 and remained relatively weak throughout its short life, employing an estimated 60 staff to cover the needs of about 4,500 CBOs/WUAs across the country. With limited resources it struggled to find a clear role for itself. Government recognized the need to significantly enhance its support to these rural schemes as it was becoming clear that an increasing proportion were non- or partially-functioning (estimated at 40 percent by NWSDB), although lack of good quality data and systemic monitoring and evaluation (M&E) of the sub-sector makes this hard to confirm, rendering sector management that much more difficult.

15. In response, the Government set up a new Department (Department of National Community Water Supply – DNCWS), Gazetted in September 2014, as a successor to the NCWT with broader responsibility for ensuring the long term sustainability of community water supply systems. Whilst the intent of the Government is clear, the DNCWS is still in its infancy and needs support and capacity building to fully define and deliver its envisaged role.

16. The typical arrangement for water supply to the estates sector is by gravity piped supplies to serve up to 125 families supplemented by wells, and rainwater harvesting. Sanitation is on-site latrines but there are many reported instances of water source pollution due to unsanitary latrines used by the plantation communities. Schemes are typically managed by the Regional Plantation Companies (RPCs) with support from the Plantation Human Development Trust (PHDT).[4] The Government is represented in the PHDT by the Ministry of Plantation Infrastructure Development. Funds to develop water and sanitation facilities are mostly provided by the PHDT supplemented by the Regional Plantation Companies (RPCs). The most appropriate institutional model to deliver water and sanitation services is still unclear. Earlier World Bank supported projects attempted to use community based models in the estates sector but with limited success. Given the low quantity and quality of WSS services in the estates this is a critical shortcoming.

17. Across all sub-sectors the sustainability of water resources is becoming a major challenge, both with respect to quantity and quality of raw water and the need for environmental protection of water sources. Urbanization and population increase, increasing levels of source pollution, watershed/source degradation, increasing seasonal variations in the river flows, salinity intrusion, and CKDu are all putting pressure on water quality while a lack of mechanisms for water allocation impacts availability.

C. Higher Level Objectives to Which the Project Contributes

18. The project is aligned with the Country Partnership Strategy (CPS) FY2013-FY2016 (Report No. 66286-LK). The project will seek to increase equitable delivery of water supply and sanitation services in urban, rural and estate areas. It thus supports one of the CPS's three Focus Areas -

[4] The PHDT is a Tripartite Organization consisting of the GoSL, Regional Plantation Companies (RPCs) and Plantation Trade Unions formed by the GoSL to implement social development programs to enhance the quality of life of the Plantation Community in the Estates managed by the RPCs.

Improving living standards and social inclusion by: (i) increasing quality of services; (ii) reducing the prevalence of malnutrition; and (iii) expanding social inclusion and equitable access.

19. In particular the proposed project will support development in the lagging regions and the estates sector where access to WSS is lower and poverty level is higher compared to the national average. Thus the project will also support the World Bank Group Corporate Goals on poverty reduction and shared prosperity. It will do this by reducing time spent collecting water, freeing it up for more productive uses and by reducing susceptibility of these vulnerable groups to health risks posed by water-borne and sanitation related disease. Such diseases have negative impacts on household incomes associated with increased healthcare costs, lost time and productivity.

II. PROJECT DEVELOPMENT OBJECTIVES

PDO

20. The development objectives of the project are to increase access to piped water services and improved sanitation in selected districts; and to strengthen the capacity of associated institutions.

Project Beneficiaries

21. The project will directly benefit an estimated 426,000 people (approximately 107,000 households) with safe piped water supply, of which approximately 26,300 households are in towns, 15,800 households in estates and the remaining 64,900 households are in rural areas. This will meet about 14 percent of the GoSL's national target of increasing piped water coverage from current 45 percent to 60 percent (additional 3 million people) by 2020. Furthermore, augmentation of some of the existing systems will improve service delivery in the project areas benefiting approximately 25,800 households. The NWSDB will certify the works expenses. Sanitation programs will benefit approximately 43,000 families to build the individual latrines in rural areas and estates. Management of fecal sludge is a growing problem in urban/small towns where on-site septic tank sanitation is the norm. The project will finance the construction of strategically located septage treatment facilities in each of the project districts. This will improve sanitation for people in towns and the environmental conditions in the catchment area of these facilities.

22. Women and children will benefit significantly from project interventions, as they currently bear the burden of securing the daily drinking water needs of the family and disproportionately suffer the consequences of illnesses associated with poor access to water and sanitation. To help promote the interests of women the Water User Association (WUA) committees will be required to have at least three members who are women.

23. The project has a strong poverty focus. There was found to be a strong correlation between poverty - measured by the poverty head count - and the level of access to water services. The selection[5] of the seven high priority districts was thus based on three criteria: (i) percentage of people with access to unimproved/unsafe water; (ii) percentage of households with access to non-piped water source; and (iii) districts in the dry zones[6]. Introducing the Poverty Headcount Index directly

[5] Selected through an objective and transparent screening process in consultation with National Planning Department (NPD), MUDWSD and the NWSDB.

[6] There are 3 climatic zones in Sri Lanka: (i) Wet Zone, (ii) Intermediate Zone, and (iii) Dry Zone.

into the process did not materially change the priority districts. The seven priority districts in four Provinces are:

- ✓ Mullaithivu and Kilinochchi districts in Northern Province
- ✓ Nuwara Eliya district in Central Province
- ✓ Badulla and Monoregala districts in Uva Province
- ✓ Kegalle and Ratnapura districts in Sabaragamuwa Province

24. Central Province is home to some 54 percent of the estate population in the country. This is important given that the estate poverty headcount index at 11.4 is more than double that in urban areas (5.3) and 20 percent higher than in rural areas (9.4) according to the 2012 statistics.

25. The poverty dimension of the project is reinforced in the project's sanitation investments. It is usually the poorest groups which lack access to toilets not because they don't understand the value of a toilet but because they cannot afford the construction cost. Under the project, eligible families in rural and estates will receive a sanitation grant to build hygienic toilets.

PDO Level Results Indicators

26. Achievement of the PDO will be monitored using the following indicators:

a) Direct project beneficiaries, of which female (percentage)
b) People provided with access to "Improved Water Sources" (Urban), of which female (percentage)
c) People provided with access to "Improved Water Sources" (Rural + Estates), of which female (percentage)
d) People provided with access to "Improved Sanitation" (Rural + Estates), of which female (percentage)
e) Populated and functioning RWSS monitoring and evaluation system
f) Increase in proportion of fully functioning CBOs

III. PROJECT DESCRIPTION

A. Project Components

27. The project comprises four components which are described in more detail in Annex 2.

- Component 1 - Water Supply and Sanitation Infrastructure
- Component 2 – Institutional Capacity Strengthening
- Component 3 - Sectoral Technical Assistance
- Component 4 - Project Management Support

Component 1 – Water Supply and Sanitation Infrastructure ($160.24 million, IDA $145.22 million)

28. This component will finance infrastructure investments to support expansion of piped water services in urban, rural and estate areas in the above mentioned selected districts. Cost effective technical solutions will ensure that each unit of investment delivers the maximum service improvement. Within the urban sub-sector the focus will be on small towns as the Government has

a number of projects already planned for larger urban centers. The selection of urban schemes is based on criteria set nationally by NWSDB and with further filters set by the project to benefit the maximum number of people.

29. The rural schemes will be implemented through a participatory and demand responsive approach and in close coordination with the Local Authorities, Pradeshiya Sabha (PS). The rural schemes will be selected through a set of agreed criteria. The rehabilitation and/or expansion of existing rural schemes would be included based on agreed criteria and up to 15 percent of the rural sub-sector investment amount. For rehabilitation schemes, 30 percent of the contract value will be contributed by the CBOs in kind or cash, payable to the contractors directly.

30. In Central Province investment will focus on piped water supplies and sanitation in estates and adjoining rural villages. From experience of earlier pilots in the estate sector some of the key issues to be considered include: (i) capacity of the estate workers to manage the schemes, and alternatives in the event of low capacity/interest; (ii) roles of the different parties in operations and maintenance (O&M) – the Water Board, the plantation owners, the community, the PHDT and the Estate Workers Housing Cooperative Society (EWHCS).

31. For urban sanitation, the project will finance the construction of septage Treatment Plants in each district. Rural and estates sanitation improvements will use appropriate models in line with government policy and provide an incentive grant of LKR 35,000 (about 70 percent of the proposed latrine cost of LKR 50,000) to eligible households. Identification and selection of beneficiaries will be done by the close coordination of the WUA and the District Support Units.[7]

32. ***Hygiene Education and Awareness Programs*** are at the heart of any successful sanitation program. The PMU will support and organize intensive hygiene promotion programs to educate communities, in particular school children, on practices such as hand washing, proper use of latrines, menstrual hygiene, and preventing contamination of water sources, etc. and emphasize the socio-economic costs of poor sanitation and the benefits of good hygiene and improved sanitation. The hygiene education campaign will start at the time of community mobilization, and will continue through most of the project life.

Component 2 – Institutional Capacity Strengthening ($6.43 million, IDA $6.43 million)

33. The project will support the detailed design and operationalization of the DNCWS through the following activities.

- Institutional design and capacity strengthening of DNCWS by supporting: (a) preparation of a detailed design of the department including organizational structure, staff numbers and skill sets, job descriptions and so on; (b) offices and equipment needed to set up the department in each districts; and (c) training for staff of the department;

[7] From the initial stage of the propjet, the existing District Units under the NWSDB will be used as District Support Units (DSUs) within the administration and implementation arrangements for the entire project, where staff of DNCWS and NWSDB work together to implement the RWS activities, under the Project Management Unit of the MUDWSD.

- Design and implementation of an M&E system to capture indicators of system functionality and sustainability. This will include a baseline survey of all existing CBOs/WUAs. The system will include mobile phone monitoring systems that are simple and cost-effective;
- Design and implementation of sustainability financing and incentive framework to: clarify the CBO liability for repairs, rehabilitation and replacement costs; generate incentives for CBOs to manage schemes and sanitation facilities better; and encourage regular and reliable monitoring of scheme performance and sustainability;
- Design and implementation of a systematic approach to use the M&E data to assess and enhance the performance of all CBOs and operations of the water supply schemes in rural and estates sub-sectors. This will help ensure that schemes are functional for their full economic life through a range of initiatives including: (a) administrative backstopping to CBOs; (b) technical backstopping; and (c) training and networking to help the CBOs solve problems on their own; and
- Establish a program to register all CBOs as legal entities.

34. This component will also support strengthening of other institutions required for the delivery of increased access to piped water services and improved sanitation in the selected districts. This will include, RWS Division of the NWSDB, and support to the design and implementation of an approach to ensure long term sustainability in the estate water supply schemes through partnering with the PHDT, the plantation companies and the EWHCS.

Component 3 – Sectoral Technical Assistance ($6.06 million, IDA $6.06 million)

35. The project will support technical assistance to improve sector capacity, including:

- *Preparation of a Comprehensive Water Supply and Sanitation Sector Program,* in collaboration and consultation with the National Planning Department, to improve water supply and sanitation across the island. This will allow GoSL to strategically invest in the sector through a programmatic approach which can be financed by local or foreign funds.
- *Preparation of National Program to develop a strategy to mitigate the aggravating effects of drinking water quality on CKD.* The TA would build on the ongoing efforts by the Government of Sri Lanka, a task force appointed by the President and the private sector, and would include: (i) a Water Quality Mapping to assess the ground water quality at the district levels, which help to identify possible risk areas in relation to the spread of CKDu and other diseases; and (ii) preparation of a National Strategy to enable NWSDB and other sector organizations to provide a comprehensive WSS response to the CKDu threat, which includes developing a risk rating system (based on water quality mapping), and assessing different technical and cost effective approaches (e.g., Rain water harvesting, bowser supply, Reverse Osmosis Plants).

Component 4 - Project Management Support ($11.20 million, IDA $7.28 million)

36. This Component will finance the administration and management of project implementation. A Project Management Unit (PMU) will be established in the implementing Ministry to manage and implement the project activities at the district and village levels in close coordination with the PHDT and DNCWS (Details are in Annex 3).

B. Project Financing

Lending Instrument

37. The project will be funded by an IDA Credit under the Investment Project Financing (IPF) instrument.

Project Cost and Financing

38. Project costs and financing are presented in Table 5. For the new rural and estates water supply schemes, the community contributions will be in the form of labor (mostly trenching and backfilling for pipe network) estimated at 10 percent of the total contract value. For the rehabilitation and/or expansion of the existing rural water supply schemes, the community contribution will be 30 percent of the contract/works value in cash and/or in kind. Therefore, there will be tripartite contract among the NWSDB, WUA, and the contractor. IDA will finance the remaining 70 percent of the contract value. Government of Sri Lanka will provide counterpart funds of about 2.7 percent of total project costs, mainly for the staff salaries and allowances of the Government officials who will be working on the project implementation and cost of land.

Table 5: Project Cost and Financing
(Including Taxes and Duties; and Physical and Price Contingencies of 10%)

PROJECT COMPONENTS	IDA Financing (US$ Million) Net of Community and Government Contributions	IDA Financing as % of Total Net of Community and Government Contributions	Community Contribution in form of Labor	Government Financing	Grand Total Cost (US$ Million)	IDA Financing as % of Total
COMPONENT 1 - Water Supply and Sanitation Infrastructure	**145.22**	**100.0%**	**13.92**	**1.10**	**160.24**	**90.6%**
Water Supply Schemes	116.32	100.0%	8.46	0.00	124.77	93.2%
Sanitation Supports	21.21	100.0%	5.46	0.00	26.67	79.5%
Implementation Support Consultants	7.69	100.0%	0.00	0.00	7.69	100.0%
Land for Water and Sanitation Infrastructure	0.00	0.0%	0.00	1.10	1.10	0.0%
COMPONENT 2 – Institutional Capacity Strengthening	**6.43**	100.0%	**0.00**	**0.00**	**6.43**	100.0%
COMPONENT 3 – Sectoral Technical Assistance	**6.06**	100.0%	0.00	0.00	**6.06**	100.0%
COMPONENT 4 - Project Management Support	**7.28**	100.0%	**0.00**	**3.92**	**11.20**	65.0%
TOTAL PROJECT COST	**165.00**	100.0%	**13.92**	**5.02**	**183.93**	89.7%

C. Lessons Learned and Reflected in the Project Design

39. The World Bank supported Sri Lanka with two consecutive Community WSS Projects during 1992-2010. The 1st CWSSP (Credit 2442-CE) for US$ 24.3 million was closed on December 1998 with a satisfactory rating. The 2nd CWSSP (Grant H0350-CE) for US$ 39.8 million closed in

December 2010, with moderately satisfactory rating. Under the two projects, over 1.4 million people were provided access to safe water through construction of rural schemes, and close to 120,000 latrines were constructed. The lessons learned from these two World Bank projects, the Third Water Supply and Sanitation Sector Project and the Secondary Towns and Rural Community Based Water Supply and Sanitation Project of the Asian Development Bank (ADB); and from other international experiences are summarized below:

- Continuous technical and management backstopping support to the CBOs during the project period is instrumental in improving sustainability of the CBO managed schemes.
- Communities require close support from Partner Organizations post construction until their CBO reaches a minimum degree of maturity to handle scheme's O&M.
- Long term scheme sustainability depends on putting in place systematic mechanisms to provide the CBOs with both technical and administrative support.
- Diligent investigations of groundwater sources, particularly in the dry zone, should be conducted to ensure quality and yield of the water sources throughout the year. Clustering subprojects around surface water sources should be considered.
- Asset ownership and legal status of the CBOs need to be defined to strengthen the CBOs' legal standing thus enabling them to address tariff revision and collections issues.

40. Project design is also informed by two non-lending technical assistance (NLTA) studies. The first study, on the Estates sub-sector, highlighted the low quality of services in the estates and the challenges of organizing communities to take responsibility for water and sanitation services given the more complex institutional arrangements in the estates where the PHDT, RPCs and EWHCS have to work together to deliver sustainable services.

41. The second NLTA study, which assessed how to deliver the Government's goals for the water sector, identified challenges of mobilizing funds, increasing the financial sustainability of the NWSDB, and the likely blurring of traditional divides between rural and urban as service delivery methods converge towards piped systems. Issues of water resources were identified as possible constraints going forwards.

42. Project design builds on the above with a particular emphasis on ensuring long term support to CBOs through Component 2. In addition, the project will support investments across all sub-sectors, implemented by NWSDB, but with service delivery arrangements appropriate for the sub-sector. The PHDT and estate companies will support service delivery in the estates, the CBOs and DNCWS in the rural areas, and the NWSDB in the towns/urban areas.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

43. The MUDWSD will be the executing agency for the project. Annex 3 presents detailed project implementation arrangements. A Project Steering Committee (PSC) will be set up at the national level to provide guidance on all components, in particular where cross-Ministry support and coordination will be essential. A PMU will be established under the MUDWSD with key staff from the NWSDB, the DNCWS and the PHDT. The DNCWS will actively support the

implementation of service delivery in rural areas whereas the PHDT will be engaged in the implementation of service delivery in estates.

B. Results Monitoring and Evaluation

44. **Monitoring and Evaluation (M&E).** Project monitoring will be achieved by updating the existing Management Information System (MIS) of the NWSDB used in other donor financed projects. This will be supplemented by the M&E system to be established under Component 2 of the project to allow for regular sector monitoring of investments in the rural and estate schemes.

45. **Project Implementation Progress.** The Results Framework Indicators (Annex 1) will be routinely monitored and measured during project implementation against base line data and targets.

C. Sustainability

46. The project will address sustainability in five key ways by:

i. Designing a system of technical and administrative backstopping to monitor and enhance the capacity of the CBOs that manage rural water schemes in the country;
ii. Supporting the operationalization of the Department of National Community Water Supply to be able to play a key role in supporting the CBOs in the long run;
iii. Engaging the stakeholders and partnering with the PHDT to develop and implement sustainable service models for the estates water service delivery in Nuwara Eliya district;
iv. Engaging systematically and continuously with citizens and beneficiaries at all stages of the process – thus building support for schemes, and an understanding of the role of the communities in operations and maintenance; and
v. Giving women a key role in the design and subsequent oversight of rural schemes.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

47. The results of the detailed Systematic Operations Risk-Rating Tool (SORT) and risk management measures are presented in Annex 4. The overall implementation risk of the project is rated Substantial. The key risks are: (i) multiple institutional approaches in the sector make the governance and accountability difficult at the institutions, and country level. The evolving institutional set up in the DNCWS for supporting rural water supply and CBO managed schemes. This is a new organization which will have to clarify the detailed requirements to meet its mandate and then operationalize those requirements; (ii) the enclave structure of the estates sector requiring coordination and cooperation across a range of different institutions including the regional plantation companies, the PHDT and the EWHCS; (iii) inadequate financial management capacity, weak internal and external audits, weak compliance monitoring and inadequate grievance redress system; and (iv) developing a robust monitoring and evaluation system that supports sustainability of the more than 4,500 CBO managed schemes in the country.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

48. The project will deliver significant economic benefits to the communities living in project areas. Access to piped water and improved sanitation will lead to savings in health care costs, reduce time spent on collection of water and accessing sanitation, increase the number of productive person days and make available increased amounts of safe water for domestic use. Project's support to construction of septage treatment plants in urban areas will improve management and safe disposal of septage thereby leading to decreased environmental pollution.

49. For estimation of the project Net Present Value (NPV) and Economic Rate of Return (ERR), only costs and benefits associated with construction and rehabilitation of piped water supply and construction of toilets were considered. Costs included capital and O&M costs as well as costs of community mobilization and project administration. Benefits included time savings, health care cost savings, productivity gains and value of incremental water available for consumption. Results were calculated by component and at the overall project level, presented in the table below, and detailed in Annex 6.

Table 6: Economic Rate of Return – Sub-Sector Wise

Sub-Sector	ERR (%)	NPV (US$)
UWSS (Water supply only)	16.31% [8]	34,356,890
RWSS	23.18%	61,316,713
EWSS	33.39%	22,062,018
Overall Project	21.88%	117,735,622

50. ***Financial Analysis***. Financial viability for representative urban water schemes using an Internal Rate of Return (IRR) computation has been assessed assuming on-lending of 15 percent of the IDA credit by GoSL to the NWSDB as a loan with the remainder passed as a grant. This on-lending arrangement is consistent with the GoSL approach with other donors. No financial analysis has been undertaken for the rural and estate schemes where all capital costs are financed as a grant by GoSL and tariffs are set by the CBOs to recover O&M costs. The IRR for the 6 urban sub-projects is presented in table 7 below indicate that all six sub projects as a whole is financially viable and sufficiently robust when faced with capital cost increases of 10 percent and revenue reductions of 10 percent. Annex 6 presents more details on financial analysis.

Table 7: Net Present Values (NPV) and Internal Rates of Return (IRR) For Six Urban Sub-Projects

Sub Project	Investment (Rs. Mill)			Net Present Value at 7% (Rs. Mill)			IRR
	Grant (85%)	Loan (15%)	Total	Base Case	Increase in O&M Costs by 10%	Drop in Revenue by 10%	
All six sub-projects	5,445.59	960.99	6,406.58	414.22	132.64	0.0	10.9%

[8] The ERR for the UWSS component is a conservative estimate because benefits of sanitation interventions are not included.

B. Technical

51. The project will finance pipe-borne water supply and on-site/decentralized sanitation infrastructure in the urban, rural and estate sub-sectors. In each case the most appropriate, cost effective and environmentally sustainable technological options would be employed adhering to nationally accepted norms.

52. In the provision of urban water supply the NWSDB, as the asset owner and the eventual operator of the schemes will take full responsibility for delivering this subcomponent. Their activities include source investigation, geotechnical investigations, concept and detailed designs, tender documentation, tender and construction supervision. The beneficiaries will be provided with a metered drinking water supply, treated to the standards of Sri Lanka Standards Institutes (SLSI).

53. In urban small towns, investments will be made for intake, pumping main, conventional water treatment plant and distribution network, with a service standard of 24 hour water supply. The per capita supply would range from 80 to 120lpcd depending on the availability and cost effectiveness of the delivery.

54. The rural and estate scheme design will include metered connections to all households who register to receive water. In rural and estates the NWSDB with the assistance of Implementation Support Consultants will provide overall technical guidance covering source investigation, geotechnical investigations, concept and detailed designs, tender documentation, tender and construction supervision. The selection of project will be on a demand responsive approach subject to objective criteria. The beneficiaries will be provided with a metered water supply, treated to SLSI standards, and reliable water supply of not less than 80lpcd.

55. Sanitation in urban areas is confined to provision of septage treatment facilities strategically located to maximize access to a larger population. Each plant will be provided with at least two gully bowsers for the collection of septage. The NWSDB will carry out all the technical work and be responsible for activities up to commissioning the plant and handover the asset to the local authority for operation. The treatment capacity of the plants will range from 35 to 60 m^3 per day. The treatment process is expected to be waste stabilization ponds with treated effluent discharged to local rivers/streams with treated effluent quality meeting national standards set for discharges to inland water bodies.

56. Sanitation in rural and estate areas will be provided using water seal latrines with on-site disposal. Typical designs will be produced to ensure quality in functionality and construction. The sanitation component will be implemented by owners in parallel to the water supply component and will attempt to achieve total sanitation in participating communities.

57. The hydraulic designs will be done in accordance with technical manuals developed by NWSDB and structures will be designed in accordance with the national standards. Specifications for common construction works will be in accordance with Institute for Construction and Development (ICTAD) specifications and for pipes and incidentals with specifications developed by NWSDB. All investigations and construction quality testing will be carried in laboratories belonging to nationally accepted institutions and to requirements and procedures institutionalized within NWSDB.

Financial Management

58. The proposed Financial Management (FM) procedures are in line with fiduciary requirements of OP 10.00. The PMU on behalf of Secretary MUDWSD would be responsible for overall FM arrangements of the project. NWSDB under MUDWSD, which implemented the recently closed World Bank managed Nep-Wash Project (Grant Funded-TF010773) has gained experience in handling World Bank managed/funded operations receiving a FM rating of " MS" or above during implementation. The proposed project is much larger with multiple implementing agencies and spending units including the District Support Units (DSUs) in addition to the PMU, and therefore has a "Substantial" FM risk rating. An FM assessment was undertaken which included the NWSDB, the MUDWSD and the DSUs, and suitable risk mitigation measures and capacity building elements are proposed. There are no overdue audit reports and ineligible expenditures under the main implementing agency, which is MUDWSD.

59. *FM Staffing*. The Chief Accountant of MUDWSD has been assigned as a focal person for the project. However, due to the scale and complexities of the proposed project, will be supported by additional FM staff to be recruited / assigned to PMU to work on full time basis.

60. *Funds Flow*. The funds requirement for the project will be budgeted in the annual budget of the MUDWSD and drawn by the PMU, based on the annual work plan. A segregated/dedicated Designated Account (DA) in United States Dollar (USD) will be opened at the Central Bank of Sri Lanka to be handled by the PMU to receive the World Bank funds to the project. Funds will also flow from PMU to respective DSUs. In addition, under rural and estate sanitation component incentive grants will be remitted to WUAs from DSUs, and in turn WUAs will provide grant to the eligible beneficiaries according to the agreed mechanism (See Annex 3 for details).

61. *Disbursements*. Disbursements will be report-based. An initial advance would be deposited into the segregated DA maintained in USD. Thereafter, withdrawals from the DA will be on the basis of six monthly forecasts as reflected in the quarterly Interim Unaudited Financial Reports (IUFRs) by the project. Quarterly IUFRs are due to be submitted to the World Bank within 45 days of end of quarter by the PMU.

62. *Audit Arrangements*. The internal auditors attached to MUDWSD and NWSDB will carry out the project internal audit. External audit of the project will be carried out by the Auditor General of Sri Lanka. The annual audit reports will be submitted within six months of the end of the financial year and monitored in Portfolio Risk Management System (PRIMA). The audited financial statements will be made available for public disclosure.

C. Procurement

63. The PMU established in MUDWSD will be responsible for procurement including preparing the Procurement Plan, and drafting bidding documents/RFP. Procurement of goods, works and services will be carried out in accordance with: World Bank "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 revised July 2014 (Procurement Guidelines); "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 revised July 2014 (Consultant Guidelines); and the provisions stipulated in the Financing Agreement.

64. *Procurement Risk Assessment and Mitigation.* The procurement capacity assessment and procurement arrangements are described in Annex 3. The mitigating measures to address procurement risks are: (i) improving and publishing the complaint handling mechanism; (ii) use of agreed Standard Bidding Documents (SBDs) for procurement of goods and works under NCB, and the Bank SBDs for ICB and consulting services; (iii) preparation and adoption of a Project Procurement Administration Manual, acceptable to the Bank; and (iv) further training of procurement staff on procurement in Bank financed projects.

65. *Procurement Plan.* The initial procurement plan for the first 18 months of project implementation, acceptable to the Bank, has been prepared by the PMU. This plan has been agreed between the PMU and the Bank on May 21, 2015 and is available at the PMU website, NWSDB website, MUDWSD website and in the Bank's external website. The Procurement Plan will be updated annually or when required to reflect project implementation needs and improvements in institutional capacity.

D. Social (including Safeguards)

66. *Social Safeguards.* All efforts will be taken to utilize State land for the infrastructure development. However, preliminary social assessments point to the need for additional land in some project locations to be funded by the GoSL. There may be situations where State land in urban areas is already encroached by illegal settlers or squatters. In rural areas, past experience shows the possibility of obtaining small plots of land through voluntary donations. Nevertheless, OP 4.12 on Involuntary Resettlement has been triggered for the project and a Social Management Framework (SMF) has been prepared to provide guidelines for the identification of social risks and the policies and regulatory frameworks for instituting mitigation measures that need to be adopted to address any adverse social impacts. The SMF has been disclosed both locally and in the Bank Infoshop. In addition, social screenings for three sub projects have been carried out. The findings from the social screenings show that subproject interventions will not have any adverse social impacts leading to resettlement or displacement of persons. The social screenings also point to the absence of the communities of indigenous people in the subproject areas. Therefore, the OP 4.10 is not triggered.

67. *Gender.* The project envisages the participation of both men and women in realizing its goals and objectives as well as ensuring its sustainability. Therefore, gender considerations have been incorporated into the SMF to ensure participation of men and women throughout the project cycle including sharing of project benefits. The project will carry out gender assessments and consultations which will be incorporated in project designs and planning.

68. *Citizen Engagement and Grievance Redress System.* The previous Community WSS Projects experiences show that CBOs including the WUAs played a vital role in engaging citizens in planning, implementation and monitoring of the sub projects. Thus, the WUAs will be formed and strengthened to ensure citizen participation in the project implementation. At subproject level, Social Audit Committees (SAC) will be established by CBO leaders and the representatives of women and youth from the respective Grama Niladhari divisions where subprojects are implemented. The objective of SACs is to monitor sub-project activities to ensure that the funds are used for intended purposes.

69. The project will establish a Grievance Redress Mechanism (GRM) which will be transparent, objective and unbiased to address any issues or grievances related to both

environmental and social safeguards. The GRM will operate at three different levels: (i) GRM is at the site (sub-project) level; (ii) Divisional level GRM will seek to resolve an issue quickly, amicably, and transparently. All grievances received will be entered in a dedicated database and updated regularly. Database will include information on the date of receipt of grievance, type of grievance and resolution and the date of resolution; and (iii) GRM at national level where all stakeholders including community groups will have the opportunity to make complaints, if any, related to the projects through the Grievance Redress Service of the Bank.

70. **World Bank Grievance Redress**. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

E. Environment (including Safeguards)

71. By adopting an integrated approach towards safe drinking water supply, sanitation, septage management and hygiene education in the selected urban, rural and estate communities, the project is expected to deliver many positive health and environmental benefits to the receiving communities in the seven selected districts, where currently access to these facilities are low relatively compared to national standards. Given the Bank's two earlier engagements in the sector, there is adequate knowledge about the type and extent of environmental benefits and challenges that could be typically expected in the proposed investments and lessons learnt that could be positively built upon.

72. With past project experience it is known that implementation impacts associated with the construction of water supply and sanitation are not significant and can be effectively mitigated with good planning and construction practices. However, there are other potentially serious concerns that the project would be required to identify and assess early in the designs as well during operation of each WS scheme. First, growing competition for water resources among domestic, agricultural, industrial and other users that can lead to conflicts and possible water shortages. Hence, ensuring proper water resources management through water budgeting, etc. in the feasibility stage is necessary. Second, contamination of water resources in subsequent phases that can lead to deterioration in the safety of the water sources. While water yield/quality testing will be mandatory in identifying the source, water safety planning and regular monitoring should be an integral part of sub-project implementation. In 2005, the NWSDB jointly with the Ministry of Health prepared a water quality surveillance action plan targeting all drinking water supply schemes in Sri Lanka. Although implementation of this action plan has been slow to begin with, greater attention is now being paid for water safety planning under NWSDB owned drinking water supply schemes. The project will seek opportunities to take these initiatives forward and promote water safety planning under its schemes and at the same time increase capacity among scheme operators for basic water safety planning.

73. Wastewater management in rural schemes is not considered to become a significant issue, as evident from the earlier two RWS projects, because pipe water will be mostly used for drinking purposes with insignificant levels of wastewater discharge. However, in town areas it may become an issue, hence wastewater disposal will need to be considered integrally with the provision of piped water. With the introduction of septage treatment facilities in selected town areas, the project would contribute significantly to the reduction in environmental pollution, where the current practice is to dispose in open dumps. These septage units will be small in capacity, hence the risk of failure or mismanagement will be less. The project will mitigate against such risks through adequate attention on operational arrangements and institutional capacity.

74. The project has triggered the policy on Environment Assessment OP 4.01 as physical interventions to the environment will be made through the expansion of piped water services, in urban and rural areas in the high priority districts, thus there will be a need to mitigate the possible sub project specific environmental impacts involved. OP/BP 4.04 is triggered more on a precautionary basis. While it is expected that most expansion/ rehabilitation and septage treatment work will be in already built up areas, new water source development may involve potential changes to natural resources/habitats, especially where rivers in upper watershed areas may be tapped.

75. Given the demand responsive approach adopted by the project, the GoSL has developed an Environmental Assessment and Management Framework (EAMF) which has been reviewed, cleared and publically disclosed locally and in the World Bank Infoshop. The EAMF includes a general assessment of the water supply and sanitation sector in the selected districts, type of safeguard issues to be anticipated, recommendation of mitigation measures and a process for assessing and managing safeguard and other issues at the sub-project level, implementation arrangements, capacity building requirements and monitoring framework. The EAMF has also been applied to the first year sub-projects with environmental screening and preparation of Environmental Management Plan (EMPs) completed for one groundwater supply and two surface water extraction schemes.

76. The mandated project level Climate and Disaster Risks Screening was carried out. The screening include assessment of exposure, sensitivity, and on adaptive capacity framework to consider and characterize risks from climate and geophysical hazards in Sri Lanka. Screening focused on key components of the project in the project areas, and its broader development context. The screening indicated where risks may exist and where further work may be required to reduce or manage these climate and geophysical risks. These risks are summarized below:

- *Extreme Temperature* resulting in drought. As stated above, one of the criteria for selecting the project areas was Dry Zone Factor, which covers all the North and Eastern Provinces. Current Drought is a key issue in Kilinochchi and Mullaithivu. In the other areas also, hydrological drought becomes a major issue especially during January to April. Future Drought is expected to worsen in Kilinochchi and Mullaithivu.

- *Extreme Precipitation* resulting in flooding. Selected project areas are prone to floods. Increase in the rainfall intensities has been observed in some areas.
- *Sea Level Rise*. Some project areas exposed, but not seen as a major problem, as they are not directly in the coastal lines.
- *Storm Surge*. Mullaithivu is vulnerable to storm surge. Storm surge height is expected to increase, but estimates are highly uncertain. Storm surge and Tsunami hazard maps are available for coastal districts with the disaster management center. These will be helpful specially designing the physical activities under the project.
- *Strong Winds*. Wind hazard has been observed to be affecting these areas increasingly, but in isolated pockets. No proper analysis has been carried out to identify the exact geographical area. The maximum wind speed from tropical cyclones is expected to increase, but estimates are highly uncertain.
- *Land Slide*. Ratnapura, Kegalle, Nuwara Eliya and Badulla are prone to landslides. National Building Research Organization (NBRO) has developed landslide hazard zonation maps for most of these areas which will be useful in the design of the intake/storage and distribution systems.

Annex 1: Results Framework and Monitoring

SRI LANKA: Water Supply and Sanitation Improvement Project (P147827)

Project Development Objective (PDO): The development objectives of the project are to increase access to piped water services and improved sanitation in selected districts; and to strengthen the capacity of associated institutions.

Results Indicators	Core	Unit of Measure	Base line	Cumulative Target Values						Frequency	Data Source/ Methodology	Responsibility for Data Collection	Description
				YR 1	YR 2	YR 3	YR 4	YR 5	YR 6				
PDO Level Results Indicators [9]													
Indicator 1: Direct project beneficiaries of which female (percentage)	☒	Number '000	0			198.6 ( )	397.6 ( )	596.2 ( )	740.6 ( )	Quarterly	M&E and MIS system, quarterly		Indicator 2 + 3 + 15 (given Indicator 4 is subset of Indicator 3)
Indicator 2: People provided with access to Improved Water Sources (Urban), of which female (percentage)	☒	Number '000	0			26.3 ( )	52.6 ( )	78.9 ( )	105.2 ( )	Quarterly	M&E and MIS system, quarterly	District Unit NWSDB/ DNCWS/ PHDT	Urban populations provided with access to water supply connections
Indicator 3: People provided with access to Improved Water Sources (Rural + Estates), of which female (percentage)	☒	Number '000	0			114.6 ( )	229.2 ( )	343.9 ( )	424.1 ( )	Quarterly	M&E and MIS system, quarterly	District Unit NWSDB/ DNCWS/ PHDT	Rural (new and rehabilitation) + Estates populations gaining access from connections
Indicator 4: People provided with access to Improved Sanitation (Rural + Estates) of which female (percentage)	☒	Number '000	0			43.0 ( )	86.0 ( )	129.0 ( )	172.0 ( )	Quarterly	M&E and MIS system, quarterly	District Unit NWSDB/ DNCWS/ PHDT	Rural + Estate populations provided with access to toilets from intermediate indicator
Indicator 5: Rural M&E system established,		Proportion of schemes in	0	System Set up	20	40	60	80	100	Quarterly	MIS	NWSDB/DNCWS/PHDT	System Number of CBO data sets in M&E system

[9] The PDO indicators and intermediate result indicators are only related to the project and measure the additional benefits of the project; hence, the base line data is zero at the start of the project. What Sri Lanka has achieved in water and sanitation service provision to its population is presented in Section I part B above.

Project Development Objective (PDO): The development objectives of the project are to increase access to piped water services and improved sanitation in selected districts; and to strengthen the capacity of associated institutions.													
Results Indicators	**Core**	**Unit of Measure**	**Base line**	**Cumulative Target Values**						**Frequency**	**Data Source/ Methodology**	**Responsibility for Data Collection**	**Description**
				YR 1	**YR 2**	**YR 3**	**YR 4**	**YR 5**	**YR 6**				
populated and used in decision making		database (percent)											
Indicator 6: Increase in proportion of fully functioning CBOs											M&E and MIS system, quarterly		Percentage of schemes identified as failed improves over time. Will be identified at implementation.
Intermediate Results (Component One): Water Supply and Sanitation Infrastructure													
Indicator 7: New piped household water connections that are resulting from the project intervention **(Urban)**	☒	Number '000	0			6.6	13.3	19.7	26.3	Quarterly	M&E and MIS system, quarterly reporting	District Unit NWSDB	
Indicator 8: New piped household water connections that are resulting from the project intervention **(Rural)**	☒	Number '000	0			16.1	32.2	48.3	64.4	Quarterly	M&E and MIS system, quarterly reporting	District Unit NWSDB/ DNCWS	
Indicator 9: New piped household water connections resulting from project intervention **(Estates)**		Number '000	0			4.0	7.9	11.8	15.8	Quarterly	M&E and MIS system, quarterly reporting	District Unit NWSDB/ PHDT	
Indicator 10: Piped household water connections that are benefiting from "rehabilitation" works undertaken under project **(Rural)**	☒	Number '000	0			8.6	17.2	25.8	25.8	Quarterly	M&E and MIS system, quarterly reporting	District Unit NWSDB/ DNCWS	Rehabilitation is expected to be 15 percent of the investment in rural areas.

Project Development Objective (PDO): The development objectives of the project are to increase access to piped water services and improved sanitation in selected districts; and to strengthen the capacity of associated institutions.													
Results Indicators	**Core**	**Unit of Measure**	**Base line**	**Cumulative Target Values**						**Frequency**	**Data Source/ Methodology**	**Responsibility for Data Collection**	**Description**
				YR 1	**YR 2**	**YR 3**	**YR 4**	**YR 5**	**YR 6**				
Indicator 11: People provided with access to "Improved Sanitation" of which female **(Rural)**	☒	Number '000	0			35.7 ( )	71.9 ( )	107.9 ( )	142.9 ( )	Quarterly	M&E and MIS system, quarterly	District Unit NWSDB/ DNCWS	Population = toilets *4
Indicator 12: People provided with access to "Improved Sanitation" of which female **(Estates)**		Number '000	0			7.3 ( )	14.5 ( )	21.8 ( )	29.1 ( )	Quarterly	M&E and MIS system, quarterly reporting	District Unit NWSDB/ PHDT	Population = toilets *4
Indicator 13: People trained in improved hygiene behavior or sanitation practices; of which female **(Rural)**	☒	Number '000	0		32.2 ( )	64.4 ( )	96.6 ( )	128.9 ( )	128.9 ( )	Quarterly	M&E and MIS system, quarterly reporting	District Unit NWSDB/DNCWS	From each household, minimum two heads of HH are trained
Indicator 14: People trained in improved hygiene behavior or sanitation practices of which female **(Estates)**		Number '000	0		7.9 ( )	15.8 ( )	23.7 ( )	31.6 ( )	31.6 ( )	Quarterly	M&E and MIS system, quarterly reporting	District Unit NWSDB/PHDT	From each household, minimum two heads of HH are trained
Indicator 15: Households gaining access to safe disposal of fecal sludge of which female		Number '000	0			7.3 ( )	14.7 ( )	22.0 ( )	29.4 ( )	Quarterly	NWSDB/ PMU		Service area of septage plants
Intermediate Result (Component Two): Institutional Capacity Strengthening													
Indicator 16: Number of CBOs visited and evaluated by DNCWS		Number '000	0							Quarterly	M&E and MIS system, quarterly	District Unit NWSDB/DNCWS + PHDT	Will be determined after completion of baseline surveys

Project Development Objective (PDO): The development objectives of the project are to increase access to piped water services and improved sanitation in selected districts; and to strengthen the capacity of associated institutions.													
Results Indicators	**Core**	**Unit of Measure**	**Base line**	**Cumulative Target Values**						**Frequency**	**Data Source/ Methodology**	**Responsibility for Data Collection**	**Description**
				YR 1	**YR 2**	**YR 3**	**YR 4**	**YR 5**	**YR 6**				
Indicator 17: Other water service providers the project is supporting	☒	Number	0			80	162	242	322	Annually	PMU	PMU	WUA established = Number of schemes
Indicator 18: DNCWS organizational structure designed and approved by Ministry		Number	0	0	1	1	1	1	1	Annually	PMU	PMU	
Intermediate Result (Component Three): Sectoral Technical Assistance													
Indicator 19: Comprehensive sector program prepared and approved by Ministry		Number	0	0	0	1	1	1	1	Annually	PMU	PMU	
Indicator 20: WSS CKD mitigation program prepared and approved by Ministry		Number	0	0	0	1	1	1	1	Annually	PMU	PMU	
Intermediate Result (Component Four): Project Management Support													
Indicator 21: Proportion of grievances registered related to project delivery that have been redressed		Percent	0	60	80	90	95	95	95	Annually	PMU	PMU	

Annex 2: Detailed Project Description

SRI LANKA: Water Supply and Sanitation Improvement Project (P147827)

1. The project will cover seven high priority districts selected by an objective assessment based on three criteria:

- ✓ Percentage of households with access to unimproved and unsafe water (60% weight)
- ✓ Percentage of households with access to non-piped water source (20% weight)
- ✓ Dry zones factor (20% weight).

2. The seven districts comprise: Kegalle and Ratnapura in the Sabaragamuwa province; Badulla and Monoregala in the Uva province, Kilinochchi and Mullaithivu in the Northern Province, and Nuwara Eliya district in Central province. The Project Operational Manual (POM) will include operational and technical details of the project activities, as well as the agreed selection criteria for water and sanitation programs.

Component 1 – Water Supply and Sanitation Infrastructure ($160.24 million, IDA $145.22 million)

3. This component will finance infrastructure investments to support expansion of piped water services in urban, rural and estate areas in the above districts and institutional sanitation in the rural areas. Cost effective technical solutions will ensure that each unit of investment delivers the maximum service improvement. The project will also support construction of latrines in rural and estates sub-sectors to help communities reach total sanitation, whereas in the urban towns septage treatment will be funded by the project.

1.i. Urban Water Supply

4. Within the urban sub-sector the project focuses on small towns given that NWSDB has a number of projects already planned for the larger urban centers. The emphasis on small towns also enables the project to extend its investments more broadly across the participating districts. Planned investments are subject to the following conditions which have been introduced to maximize project impact: (i) maximum cost per connection to be less than LKR 300,000; (ii) at least one new scheme per district (except Nuwara Eliya where the focus is on estates and rural subsectors); (iii) minimum of 500 connections per scheme; and (iv) not more than one rehabilitation project per district. A total of six small town water supply schemes have been identified for investment from a long list of priority projects submitted by the NWSDB. The list has been developed based on an objective criteria used consistently across the country for identifying and prioritizing investment in the sector.

5. The small town water supply schemes identified are: (i) Galigamuwa WS Scheme in Kegalle with 10,700 connections; (ii) Pambahinna WS Scheme in Ratnapura with 4,800 connections; (iii) Siyabalanduwa WS scheme augmentation in Monoregala with 4,110 new connections; (iv) Mullaithivu WS scheme in Mullaithivu with 3,330 connections; (v) Mullankavil WS Scheme in Kilinochchi with 2,200 connections; and (vi) Haldummulla WS scheme in Badulla with 4,220 connections. The total number of connection in the urban sector is approximately 29,400. The system augmentations would enhance the service delivery to existing customers in addition to the new connections.

6. All urban schemes will be designed considering a design horizon of 30 years and would include full conventional treatment to Sri Lanka Standards for potable water. The design supply would be 80-120-lpcd, 24 hour supply. The designs will typically comprise the intake structures for surface water sources or tube or dug wells for groundwater sources, pumping main, raw water storage tank, aeration structures, coagulation and flocculation units, settlement tanks, filtration structures, disinfection chambers, treated waters storage tanks, transmission lines, distribution lines and office buildings. There will also be ancillary electromechanical works.

7. The prefeasibility and feasibility studies, water yield and quality studies, geotechnical investigations, hydraulic and structural designs and tender documentation will be conducted by the NWSDB with the tender and contract implementation being transferred to the PMU. Contract and construction supervision will be done at the level of the district offices of the NWSDB.

1.ii (a). Rural Water Supply (New Schemes) and Institutional Sanitation

8. In the rural subsector, the selection of schemes will be based on a "participatory and demand responsive approach". First, at the district level Pradeshiya Sabhas will be ranked and selected based on a set of agreed criteria; and second, within each participating Pradeshiya Sabha communities will be selected according to criteria for new schemes broadly include the following:

- Water sources can be identified with the necessary yield and quality for the scheme to operate 15 years without further source development
- Availability of existing drinking water supply facilities within 200 meter from premises
- Community Demand for a piped water supply scheme
- The village should be situated in an area that the NWSDB is not proposing a scheme or proposes an expansion of supply within the next 5 years; except where such works would provide bulk supply to a WUA during the project period
- Village or Cluster of villages support 100 – 300 households (HH)
- There is access to electricity to the proposed pump houses or has <1km to a grid connection

9. The project will finance the provision of water supply for an estimated population of about 258,000 through construction of approximately 320 subprojects; typically of 200 connections per scheme.[10] The beneficiaries represented by the Water User Association (WUA) would contribute to the project in the form of labor for trenching and backfilling of piped networks roughly valued at 10 percent of the contract costs. The WUA will be formed for the purpose of mobilizing the communities on matters related to supporting the construction of the water supply projects, facilitating the sanitation component and awareness building on hygiene and environmental health related issues, and for taking over the O&M of the system. Based on initial survey demand for institutional sanitation will be established for possible financing.

10. All rural schemes will be designed considering a design horizon of 15 years and would include full treatment to Sri Lanka Standards for potable water. The design supply would be 80-lpcd, 24 hour supply, and:

[10] Number of schemes and number of connections per scheme are subject to change marginally depending on the schemes identified and selected under the project.

i. The works would typically include storage tanks, intakes, shallow and deep tube/dug wells, pump houses, treatment structures, pump installation and electrical work, pumping mains, supply and distribution lines.

ii. Civil and electro-mechanical works will be contracted out to qualified contractors. House connections for all beneficiary families will be included in the contract. The beneficiaries are required to provide unskilled labor for trenching and backfilling for distribution lines and house connections which is estimated at roughly 10 percent of contract value.

iii. The community will be fully trained and be made responsible for the operation and maintenance of the system. This training and the community mobilization would be undertaken by the PMU and DNCWS.

iv. The feasibility studies, water quality and yield tests, geotechnical investigations, final designs and bid documentation will be carried out by NWSDB with the assistance of a consulting firm engaged by the PMU. The subsequent tender documentation, tender and contracting will be done at the level of the PMU.

v. Tariff system will be appropriately structured to cover all O&M costs and replacement costs of pumps after 10 years.

1.ii. (b). Rural Water Supply (Rehabilitation and/or Expansion)

11. The project will allocate 15 percent of the funds for the rural water investment for rehabilitation and/or expansion of the existing CBO managed schemes. Community contribution will be higher and agreed at 30 percent. Rehabilitation work will be carried out through a tripartite contract among NWSDB, WUA, and the contractor, with 30 percent of the payments to be made to the contractor by the WUAs, which could be in cash and/or kind. The remaining 70 percent is funded under the project. Selection criteria for the rehabilitation schemes will be different than those for the new schemes, which broadly include:

i. Current status of the O&M (including their legal status, transparency of operations, operations activities, improvements of schemes in the past 5 years).
ii. Demand for rehabilitation and willingness to contribute 30 percent of the capital cost.
iii. A detailed proposal from CBOs for rehabilitation and benefits derived from the improved system.

1.iii. Estate Water Supply

12. In Nuwara Eliya district, Central Province, the project will focus on piped water supplies in estates and adjoining rural villages. From experience of earlier pilots in the estate sector some of the key issues to be considered include: (i) Capacity of the estate workers to manage the schemes, and alternatives in the event of low capacity/interest; (ii) Roles of the different parties in O&M – the Water Board, the Regional Plantation Companies, the community, the PHDT and the Estate Workers Housing Cooperative Society (EWHCS).

13. The selection of schemes in the estates will also be based on a participatory and demand responsive approach. The estates /divisions will be selected based on some selection criteria:

i. Percentage of families in the division who do not get minimum water requirement (45 liter/head/day)
ii. Water source availability and assurance of continuous supply

iii. Uncompleted projects which are productive but stopped due to lack of funds
iv. Projects under which a large number of families would be benefitted with relatively less investment
v. Housing schemes for which a large investment have already been made but beneficiaries do not live in them due to water problems
vi. Marginalized families, who haven't got any assistance from sub projects implemented by the government or donors during last 5 years

14. The Plantation Human Development Trust (PHDT) will play a lead role in the selection of estate communities, will intermediate with Regional Plantation Companies (RPCs), lead the community mobilization and provide implementation support.

i. The beneficiaries represented by the Water User Subcommittee of Estate Workers Housing Cooperative Society (EWHCS) will contribute towards the capital costs in the form of labor valued at about 10 percent of the contract cost. This subcommittee and its membership will carry out the same functions of a WUA in the rural sector. This sub-project component will provide water supply for an estimated population of over 63,000 by way of approximately 130 schemes; typically of 120 connections per scheme. Beneficiaries who had expressed willingness to be connected would be eligible for a free connection under construction contract. Tariff system will be appropriately structured to cover all O&M costs and replacement costs of pumps after 10 years.

ii. All civil and electro-mechanical works will be contracted out to qualified contractors. The works would typically include storage tanks, intake chambers, weirs, pump houses, treatment structures, pump installation and electrical work, pumping or gravity mains, supply and distribution lines. The beneficiaries are required to provide unskilled labor for trenching for distribution lines. The community (represented by EWHCS) will be fully trained and be made responsible for the operation and maintenance of the system. This training and the community mobilization would be undertaken by the regional staff of the PHDT under the guidance of the PMU.

iii. All estate schemes will be designed considering a design horizon of 15 years and would include full treatment to Sri Lanka Standards for potable water. The design supply would 80lpcd, 24 hour supply. All structural and hydraulic designs will be done in commensurate with international codes and standards.

iv. The prefeasibility and feasibility studies, water quality and yield tests, geotechnical investigations, final designs and bid documentation will be carried out by NWSDB with the assistance of the PMU. The subsequent tender documentation, tender and contracting will be done at the level of the PMU. The implementation, including supervision of works and community mobilization, being transferred to the PHDT Regional Directorates and supported by the PMU.

v. Metering for plantation communities will be introduced on a pilot basis for subsequent scale up during the project. However, if found to be difficult, a fixed user fee system will be introduced for the purpose of cost recovery. The fee will be appropriately structured to cover O&M, including replacement cost of pumps (if any) and incidentals after 10 years.

1.iv. Urban Sanitation

15. The project will focus on the collection and treatment of septage in urban areas, given that there are no facilities for safe discharge of septage in any of the areas covered under the project. Septage treatment facilities will be constructed in each district, located strategically to cover the largest catchment. In the larger or denser districts, a second plant may also be considered. The treatment capacity is expected to be 35 to 60 m3/day. All preliminary studies, engineering and tenders will be done by the NWSDB with O&M transferred to the respective local authorities after training their staff. At least two bowsers will be provided for each plant for the collection and transfer of septage. This service will be provided by the local authority at a fee that would cover the operation and maintenance of the treatment plant and equipment. A Memorandum of Understanding (MoU) will be signed between the Local Authority and NWSDB for technical support services. The proposed septage treatment method is Waste Stabilization Ponds (WSP) or any other appropriate methods considering availability of land, ease of operation and maintenance, low sludge production and operational cost effectiveness. The treated effluent will be discharged after a certain retention time to the surface water body. The effluent discharge will be in accordance with Sri Lanka Standards for discharge of treated water to inland water bodies.

1.v. &1.vi. Rural and Estate Sanitation

16. The project will focus on the provision of sanitation in the form of latrines to communities in the rural areas and in plantation estates targeting beneficiaries who do not have access to a latrine of their own so as to help achieve total sanitation in communities. Standardized technology and delivery models in line with current government policy would be employed to ensure consistency amongst different programs of the government. In this program, it is proposed that incentive grants be provided to households that do not have a latrine of their own. Identification and selection of such beneficiary households would be the responsibility of the WUA and be done in close collaboration with the DSUs at the district level. Beneficiaries will be entitled to a sanitation grant of Rs. 35,000. Any remaining costs of constructing the latrine will be contributed by the household beneficiaries (in kind and /or cash). Beneficiaries in the estate sector would also be provided with the same grant amount. The mechanism for transfer of grant is summarized in the Financial Management section and detailed in the POM.

17. In parallel the project will support hygiene education and awareness building programs including on environmental health to improve health outcomes. The PSUs will carry out this task through the services of the officers of the NWSDB and the International Support Consultant.

18. In the implementation of all activities; the designs for hydraulics will be done in accordance with technical manuals developed by NWSDB and the designs for structures in accordance with the British Standards (BSI). Specifications for common construction works will be in accordance with ICTAD specifications and for pipes and incidentals on specifications developed by NWSDB. All investigations and construction quality testing will be carried in laboratories belonging to nationally accepted institutions; and to requirements and procedures institutionalized within NWSDB.

Component 2 – Institutional Capacity Strengthening ($6.43 million, IDA $6.43 million)

19. This component forms a core part of the project design, where the project will promote long term support mechanisms to improve the sustainability of Community Based Organization (CBO)

managed rural and estate sector water schemes and service delivery. The DNCWS will play a key role in the sustainability of the community managed rural water supply. The project will provide a range of technical assistance support to enhance the capacity of this Department and help with formulating an institutional framework and operational strategy to sustain the RWS investments. These will include:

a) Comprehensive Technical Assistance (TA) engagement to build the capacity of the DNCWS which is mandated to help improve the operations of the RWS schemes and enhance sustainability of the investment throughout the useful life of the infrastructure assets covering: (a) institutional design of the whole department including organizational structure, staff numbers and skill sets, job descriptions; (b) offices and equipment needed to set up the department in each of the project's seven districts; and (c) training for staff of the departments.

b) A sustainability financing and incentive framework will be developed to clarify liability for repairs, rehabilitation and replacement costs; generate incentives for CBOs to manage schemes and sanitation facilities better; and encourage regular and reliable monitoring of scheme performance and sustainability.

c) Creation of a RWS data base and the Monitoring and Evaluation (M&E) system. Given that data on CBO operated RWS schemes in Sri Lanka are inconsistent, limited and outdate; managing the sector has been extremely difficult. Given this, the project will fund surveys for obtaining data on the functionality of 4,500 CBO-managed rural water schemes already in existence which will feed into an M&E system to be developed during initial stage of the project life which includes sector indicators for the functionality and sustainability. This will help ensure that schemes are functional for their full economic life through a range of initiatives including: (a) administrative backstopping to CBOs; (b) technical backstopping; and (c) a system to help the CBOs solve problems on their own. The system will employ mobile phone technology for the monitoring systems that will be simple and cost-effective. The M&E system will capture information on scheme performance/functionality and sustainability of the 4,500 CBO-managed rural water schemes already in existence, the schemes to be constructed under the proposed project and the ones to be introduced in the future.

d) Introducing a program for confirming the legal status of CBOs; such as being a registered entity, asset ownership, etc.

20. This component will also support strengthening of other institutions required for the delivery of increased access to piped water services and improved sanitation in the selected districts. This will include, RWS Division of NWSDB, and support to the design and implementation of an approach to ensure long term sustainability in the estate water supply schemes through partnering with the PHDT, the plantation companies and the EWHCS.

Component 3 - Sectoral Technical Assistance ($6.06 million, IDA is $6.06 million)

21. The project aims to support the following technical assistance programs to identify critical gaps in the water supply and sanitation service delivery in Sri Lanka and provide the information, tools and the knowhow to the guide the sector with strategic direction:

a) Preparation of a Water Supply and Sanitation Sector Program. The project will provide financial and technical assistance for the preparation of a program, in collaboration and consultation with the National Planning Department, to improve water supply and sanitation

across the island. The program would be led by the NWSDB in collaboration with the NPD to address the gaps and strategically invest in the sector through a programmatic approach which can be financed by local or foreign funds. An appropriate financial model would also be developed.

b) National Program to develop a strategy to mitigate the aggravating effects of drinking water quality on Chronic Kidney Disease of unknown etiology (CKDu). The TA would build on the ongoing efforts by the Government of Sri Lanka, a task force appointed by the President and the private sector, and would include: (i) a Water Quality Mapping to map out the ground water quality assessments at the district levels, which help to identify possible risk areas in relation to the spread of Chronic Kidney Disease of unknown etiology (CKDu) and other diseases; and (ii) preparation of a National Strategy to enable NWSDB and other sector organizations to provide a comprehensive WSS response to the CKDu threat, including developing a risk rating system (based on the water quality mapping), assessing different technical and cost effective approaches.

Component 4 - Project Management Support ($11.20 million, IDA $7.28 million)

22. The Component will finance the administration and management of project implementation both at the head office of the MUDWSD and at the district level. To the extent possible and feasible, the administration and implementation of the project should utilize the existing resources (computers, vehicles, motorbikes, etc.) to implement this project in a cost effective manner and minimize the costs. Coordination and cooperation among Government agencies to share their unused resources is critical and MUDWSD will review the project requirements and play a timely catalyst role to ensure cost effective implementation. The salaries and allowances for the civil servant staff will be funded by the Government.

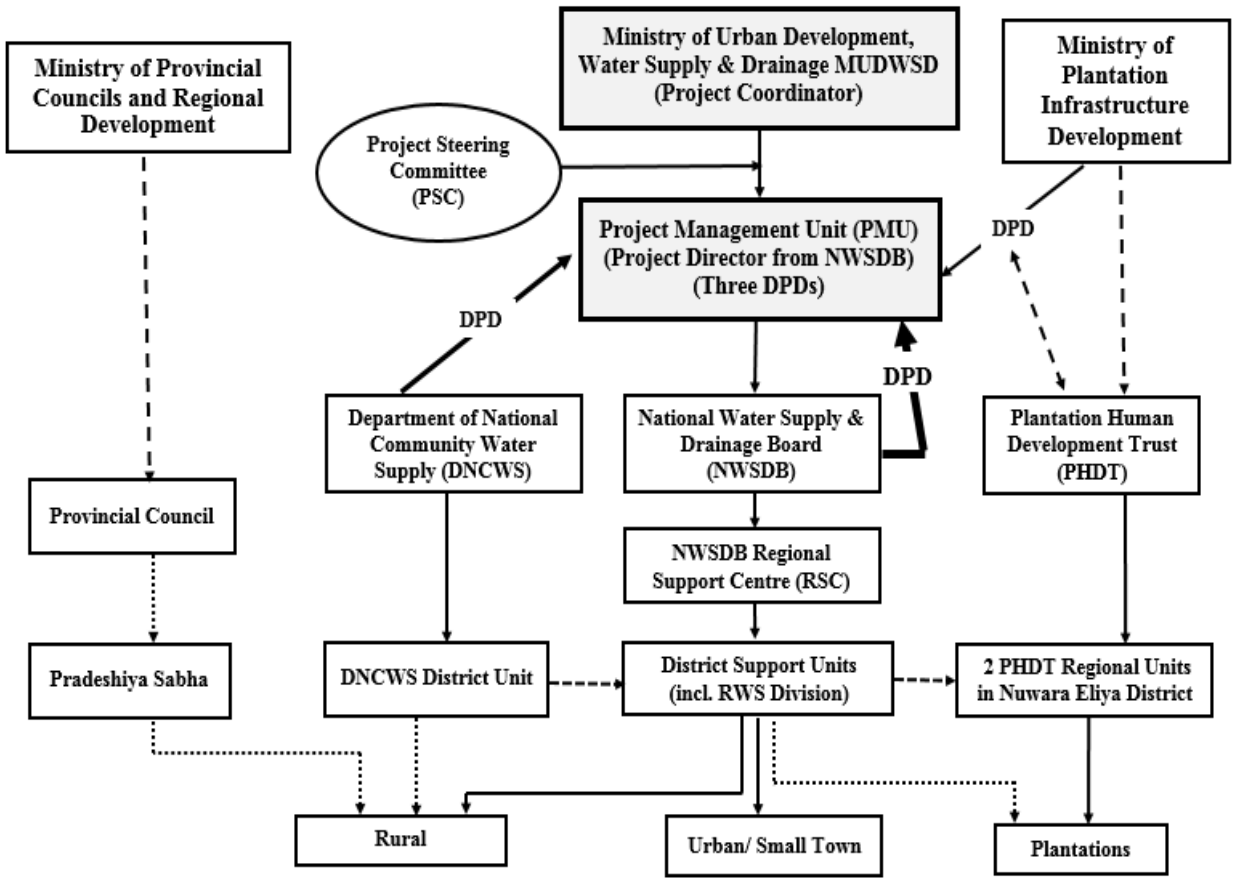
Annex 3: Implementation Arrangements

SRI LANKA: Water Supply and Sanitation Improvement Project (P147827)

I. Institutional and Implementation Arrangements

1. The Ministry of Urban Development, Water Supply and Drainage (MUDWSD) will be the executing agency for the project. A Project Steering Committee (PSC) will be set up at the national level to provide guidance on both components, in particular where cross-Ministry support and coordination will be essential. PSC will have three sub-committees for each of the sub-sectors to have more focused discussion meetings and report to the main PSC as and when necessary.

Figure 1: Project Institutional and Implementation Arrangements



2. PSC Members is as follows:

- Ministry of Finance
- Ministry of UDWSD – Secretary, is the Chair of the PSC
- Ministry of Public Administration, Provincial Councils, Local Government and Democratic Governance –Secretary or Addl. Secretary
- Ministry of Irrigation and Agriculture – Secretary or Addl. Secretary
- Ministry of Plantation Infrastructure Development – Secretary or Addl. Secretary

- Ministry of Health and Indigenous Medicine – Director General of Health Service or Addl. General
- Ministry of Policy Planning and Economic Affairs (NPD and ERD) – DG or Addl. Director General
- Ministry UDWSD Addl. Secretary, Technical
- NWSDB – General Manager
- DNCWS – Director General
- PHDT – Director General or his representative
- Central Environmental Authority – DG or Addl. Director General
- NWSDB - Addl. GM / Project Director as the Secretary to the PSC
- NWSDB – Addl. GM responsible for the regions/districts
- NWSDB - Addl. GM responsible for sewerage

3. The Project Management Unit (PMU) will be established under the MUDWSD with key staff from the National Water Supply & Drainage Board (NWSDB), and Department of National Community Water Supply (DNCWS). In addition, a Deputy Project Director appointed by Ministry of Plantation Infrastructure Development (MPID) will coordinate the work of Plantation Human Development Trust for the estates sub-sector project activities. PMU will be headed by a Project Director (PD) from the NWSDB at the level of Assistant General Manager or above to provide overall project management for all three sub-sectors. The Deputy Project Directors will be at level of Chief Engineers or above from NWSDB and similar level from MPID/PHDT and DNCWS. Key staff of PMU is as follows:

Position	**No**	**From**
Project Director	01	NWSDB
Deputy Project Director (Technical)	01	NWSDB
Deputy Project Director (Community Dev)	01	DNCWS
Deputy Project Director (Technical)	01	PHDT/MPID
Chief Accountant	01	MUDWSD (Part Time)
Senior Officer	01	PHDT/MPID
Chief Engineers	03	NWSDB (01) and DNCWS (01)
Engineer Assistants	02	NWSDB
Chief Sociologist	02	NWSDB (01) and DNCWS (01)
Senior Community Development Officer	02	DNCWS
Senior Accountant	01	Services to be obtained
Procurement Specialist	01	NWSDB full time
Procurement Officer	02	NWSDB or any other government, institution released full time to the project
Environmental Specialist	01	Services to be obtained
Institutional and Communication Specialist	01	Services to be obtained

4. The scale, scope and coverage of the project calls for many more additional staff which have to be hired on contract basis, based at PMU head office, district offices, and at the Pradeshiya Sabha (village) levels – that is at the project sites. It was discussed and agreed with the NWSDB that these additional resources are hired under one contract, through a Consulting Firm.

5. The scope, composition, and skills requirements of Implementation Support Consultants (ISC) are as follows. Two teams will be responsible for implementing this proposed project.

- The NWSDB/ DNCWS/ PHDT
- The Consultant Team

Composition of the NWSDB/ DNCWS/ PHDT Team

Position		Man Months	Total M/M
Project Management Unit (PMU)			
Project Director	NWSDB	60	60
Deputy Project Director	NWSDB	60	60
Deputy Project Director	DNCWS	60	60
Deputy Project Director	PHDT/MPID	60	60
Assist. Gen. Manager (Finance) -25 percent	NWSDB	15	15
Chief Sociologist	NWSDB	60	60
Chief Engineer	NWSDB	60	60
Sr. Community Development Officer	DNCWS	60	60
Procurement Specialist	NWSDB full time	60	60
02 Procurement Officers	NWSDB or any other government institution released full time to the project.	60	120
District Support Units (DSU)			
07 District Managers	NWSDB	54	378
07 Sociologists (part-time)	NWSDB	27	189
07 Community Dev. Officers	DNCWS/PHDT	54	378
07 Engineers RWS (part-time)	NWSDB	27	189
07 Engineers	DNCWS/PHDT	54	378
07 Accountants (part-time 25 percent)	NWSDB	14	98
Urban Small Town Units (USTU)			
06 Engineers Assistants	NWSDB	54	324
Pradeshiya Sabha Level Rural Units PSRU			
30 Community Development Assist.	DNCWS	48	1,440
30 Community Development Assist.	DNCWS/PS	48	1,440
Plantation Support Units			
06 Technical Assistants	PHDT	36	216
08 Community Development Assist.	PHDT	48	384
Total		**899**	**5,849**

6. The above team will be advised and assisted by the ISC team. However, ISC will not have any line responsibilities and will not be directly involved in operational matters. It is proposed that a consortium of International and Sri Lankan Consultants will work under the direction of the Project Director and station at the PMU.

Consultant Team - International Input

Position	**Man Months**
1. Advisor to the Project Director, referred to as Team Leader	36
2. Community Development Specialist	12
3. MIS Specialist	6
Total	**54**

Consultant Team – Sri Lanka Input

Position	**Man Months**
1. Deputy Team Leader	54
2. Community Development Specialist	24
3. Environmental Specialist	18
4. Sanitation & Hygiene Specialist	24
Total	**120**

7. In addition to the Consultant team, the following staff will be hired by the Consultant on contract unless the positions could be filled by the NWSDB/DNCWS/PHDT.

Contracted Staff

Position	**Man Month**	**Man Months**
07 Senior Engineers	51	357
01 Senior Accountants	54	54
07 Accountants	51	357
01 Senior Training Officer	52	52
07 Training Officers	51	357
07 Environmental Officers	51	357
38 Engineering Assistants	48	1,824
32 Technical Assistants	48	1,536
02 Secretaries	54	108
01 Office Manager	54	54
07 Office Assistants	51	357
09 Accounts Clerks	51	459
07 System Operators	51	357
17 Drivers	51	867
09 Office Laborers	51	459
Total	**769**	**7,555**

8. Component 1 - Water Supply and Sanitation Infrastructure will be implemented by the NWSDB under the MUDWSD and in close collaboration with and the support from DNCWS and PHDT, as well as Provincial Councils, district and divisional Health Authorities, and Pradeshiya Sabhas (Local Authorities).

9. Component 2- Institutional Capacity Strengthening will be carried out by PMU in close coordination with and support from NWSDB, DNCWS and PHDT.

10. Component 3 - Sectoral Technical Assistance will be carried out by the PMU/NWSDB and support from the line Ministry.

11. District Support Units (DSUs) at each project district will be strengthened to handle one small town water supply, septage treatment and Rural Water Supply and Sanitation. At least a District Manager and an Accountant will be assigned from NWSDB in addition to the other staff at DSU. The staff of the District Units will be as follows.

Staff of District Support Units

Position	No.	From
District Manager/ Chief Engineer	01	NWSDB
Engineers	03	NWSDB (01), ISC (01), DNCWS (01)
Sociologists	01	NWSDB
Community Development Officer	01	DNCWS
Environmental Officer	01	ISC
Accountant	01	NWSDB
System Operator	01	ISC
Engineering Assistants	06	NWSDB (01); ISC (05)
Technical Assistants	05	ISC
Community Development Assistants	10	DNCWS
Supportive Staff	05	ISC

12. *Urban/Small Towns Sub Projects.* Feasibility studies of urban/ small towns will be carried out by the Planning & Design (P&D) Section of the Regional Support Centers (RSC) of NWSDB. Existing RSC offices in the identified 7 districts will be utilized for design and documentation of small town sub-sector. Appraisals of those will be done by the Main Project Appraisal Committee of the NWSDB. Planning, designs and documentation of those will be carried out by the P&D Section of the RSC/NWSDB with the support of P&D Section and Sewerage section of the NWSDB and PMU. Implementation of urban/small town subprojects will be carried out by District Officers of the NWSDB with the support from PMU and approval from relevant Procurement Committee.

13. *Rural and Plantation Sub Projects.* Ranking of Pradeshiya Sabha areas for implementation of rural subprojects will be prepared by the District Unit of NWSDB in coordination with DNCWS. Similar activities for estates will be done by the PHDT, and all in accordance with the approved criteria. Approval of same will be given by the district level committee consist of Chief Secretary of the Provincial Council, DGM of RSC, District Secretary, District Officer of the DNCWS, Assistant Commissioner of Local Government, District Director of Health Services, District

Educational Officer (if relevant) and District Manager of the District Unit of NWSDB (as Convener).

14. Priority list of rural/plantation sub-projects for implementation within the Pradeshiya Sabhas will be prepared by the District Unit of the NWSDB, taking in to consideration of Local Authority level Participatory Development Plan (LAPDP), in accordance of the approved criteria. Approval for same will be given by the Committee co-chaired by Chairman of PS and Divisional Secretary of the area together with District Manager of NWSDB, District Officer of DNCWS, Regional Manager of PHDT, Medical Officer of Health, Engineer (RWS) of the District Unit (as Convener).

15. Overall implementation responsibility of rural/plantation sub projects will be the District Unit of the NWSDB. This unit will work in close coordination with DNCWS District Unit, Regional Unit of PHDT and Plantation Companies. Planning, Design, Documentation and contracting of rural sub projects will be carried out by the District Office of NWSDB with the support from PMU and approval from the relevant Procurement Committee.

16. *Community Participation and Citizen Engagement.* Communities will participate at all stages of decision making process of rural/Plantation sub projects. To facilitate the community engagement on WASH programs, a Water User Association (WUA) will be formed in each rural sub-project representing the relevant user communities both during the implementation and post-implementation O&M of the schemes. In the Plantation sector, a WUA will be formed within the water subcommittee of the Estate Workers Housing Cooperative Society (EWHSC). Finalization of proposals for the subprojects will be done together with WUAs. During implementation WUAs will be given an opportunity to inform district office on progress and issues of the works carried out by the contractor. Stakeholders' forum for urban township will be formed to get feedback from citizens and stakeholders.

17. Awareness program for selection of subprojects and training programs for WUA members for sustainability of RWSS systems will be supported by Civil Society Organizations (CSOs).

18. PMU would carry out the following functions directly.

i. Preparation and implementation of Annual Work Plans
ii. Setting up of criteria for ranking of PS areas and selection of subprojects.
iii. Review and update implementation Guidelines
iv. Selecting an implementation support consultant
v. Overall management of operations (including personnel, long term & short term consultants).

19. Periodic reviews of the project and implementation progress will be done together with members from Planning and Design, Sewerage, RWS Divisions of the NWSDB, and also from DNCWS and PHDT.

Monitoring & Evaluation

20. Monitoring and evaluation of the water schemes is critical for their sustainability particularly for rural and estates water supply schemes. Project monitoring will be enhanced by

updating the existing Management Information System (MIS) of the NWSDB and the DNCWS. This will help regular sector monitoring of the investments made in particular that for the rural water and CBO managed schemes. Similarly, the District level monitoring will be enhanced by using information, communication, technology (ICT), and in particular mobile technology, to collect and record data on all aspects of project implementation. The Results Framework Indicators (Annex 1) will be routinely monitored and measured during project implementation against base line data and targets.

II. Financial Management, Disbursements and Procurement

Financial Management (FM)

21. The primary responsibility for FM would rest with the PMU under MUDWSD, which will include: (i) ensuring compliance with all financial covenants in the legal agreement; (ii) managing funds in an efficient, effective and transparent manner, obtaining funds from the Bank; (iii) furnishing financial reports to the Bank; (iv) forwarding project audit reports to the Bank; and (v) overall co-ordination and monitoring FM activities of all DSUs involved in the project and any other requests relating to FM made by the Bank team.

22. The FM unit of the PMU will be headed by a qualified and experienced Finance Manager who would preferably have some prior experience handling FM arrangements of donor financed operations. He/she would work for the project on part time basis and will provide guidance and direction required to ensure that the FM arrangements are implemented to the satisfaction of the GoSL and the World Bank. It is proposed to assign/recruit one project accountant and relevant FM support staff dedicated to the project to work under the Finance Manager to handle daily/routine accounting and FM activities of the PMU.

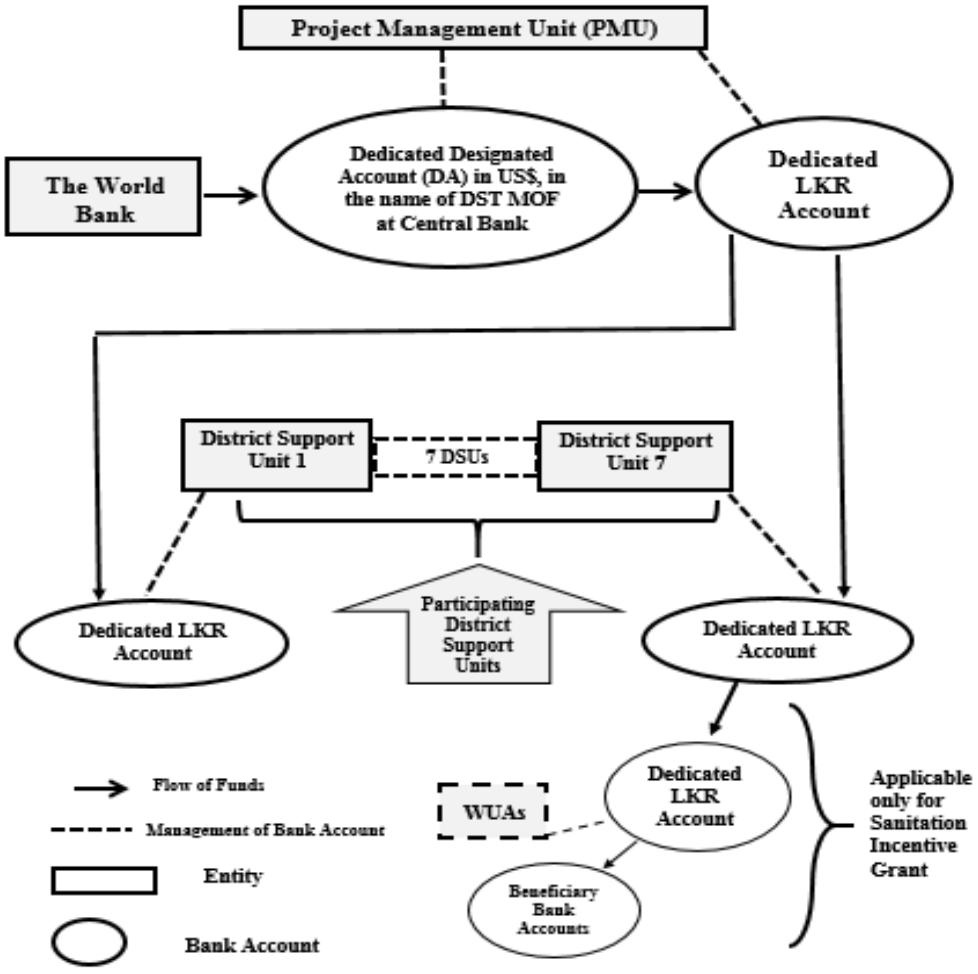
23. The project accountant, who would be a qualified and experienced accountant, working on full time basis, will be responsible for day today project FM activities. This includes project budgeting, disbursement planning and forecasting, operation of the DA including claiming replenishments, disbursement of project funds, making project payments, maintaining books and records for project financial transactions, submission of quarterly project interim financial reports to the Bank, preparation of annual project financial statements and interact with project internal/external auditors on the audit issues and their follow up. The accountant will work under the overall supervision, direction and guidance of the PMU Finance manager.

24. The existing District Support Units (DSUs) will carry out FM activities for the related components implemented by them. It is envisaged that 7 DSUs will be taking part in the project and they would perform the functions of a spending unit/accounting unit with regard to the activities to be executed by their component/s. The DSUs are currently having FM staff for their routine work, however, for the project it is envisaged a dedicated accountant will be assigned from NWSDB to each of these units to work for the project. The PMU will do fund transfers as imprests to the DSUs on a periodic basis and each DSU will manage the payments related to their project components. They will also be responsible for the following: maintaining books of accounts, periodically reporting back on expenditures incurred to PMU and providing information required for internal and external audit when required. No other unit/institution will handle project funds other than the PMU and the 7 DSUs.

25. It is proposed to open one project Designated Account (DA), denominated in USD, at the Central Bank of Sri Lanka (CBSL). The DA will be operated and managed by PMU. The disbursements will be report based. Quarterly consolidated Interim Unaudited Financial report (IUFR) will be submitted to the Bank by PMU within 45 days of end of each quarter. The Bank will advance funds to the DA in adequate amounts to meet project expenditures for a forecast of 6 months, as reflected in the quarterly IUFRs. Withdrawal Applications (WAs) will be prepared by the PMU and replenishments to the DA will be based on the IUFRs approved by the Bank. The formats of IUFRs, designed in accordance with the guidelines issued by the Bank will be agreed during negotiations and the agreed formats will be attached to the Disbursement Letter (DL).

26. *Fund Flow Mechanism*. The Figure 2 below shows the Flow of Funds Mechanism for the entire project and for the sanitation incentive grant.

Figure 2: Fund Flow Mechanism



27. The PMU will open a separate dedicated Sri Lanka Rupee (LKR) account operated by the PMU to make payments for eligible project expenditures. Exchange losses arising due to the transfer from DA to LKR will not be considered eligible expenditure and will not be absorbed by the IDA credit. In a similar manner, all 7 DSUs will have separate dedicated LKR accounts opened

to carry out payments related to their respective activities under the project. However, all the DSUs will report back the expenditure incurred to PMU on a monthly basis. DSUs will process payments, maintain accounting records and relevant supporting documentation related to their respective components and share information with PMU as relevant

28. IDA credit proceeds will be used to finance eligible expenditures necessary to meet the development objectives of the project with due attention to considerations of economy and efficiency in accordance with the provisions of the Financing Agreement. If the Bank determines that credit funds have been used to finance ineligible expenditures, the amounts used for such expenditures should be refunded to the Bank by the GoSL.

29. It was agreed between the Bank and the MUDWSD that all fund transfers would be between bank accounts and that no cash transfers would take place. At present all DSUs have fully fledged accounting units that manage Government budgets, follow government procedures, and operate bank accounts. The detailed project payment procedures that clearly state the responsibilities of each of the staff will be laid down in the FM Manual which will become part of the Operational Manual that would be developed for the project.

30. *Sanitation Incentive Grant.* Under rural & estate sanitation component, the project would also transfer grants to communities through the WUAs adopting a CDD approach. These grants will be transferred by DSUs to WUAs in three instalments at pre-determined amounts. WUA in turn will make transfers to bank accounts of beneficiary households, adopting the same number of tranches and amounts. WUA will maintain information and report back to DSU, on details of fund transfers to beneficiaries after the release of each tranche. These grants will be considered as incentive grants and each tranche released by DSU to WUA will be recognized as expenditure for WB disbursement purposes at the time of remitting the tranche to WUA by the DSU, since the expenditures have been incurred by the beneficiaries. This is due to the fact that, as confirmed by the technical team, to reach the given milestones, beneficiaries have already incurred expenditure equal/higher than the cumulative amounts released by DSU and hence each tranche released, can be considered as a re-imbursement. Reasonable assurance of utilization of grant funds by beneficiaries for intended purposes will also be obtained, through monitoring/oversight mechanisms prevailing at PMU/DSU and WUA levels (such as verification of mile stones achieved in latrine construction by technical team) as well as additional alternative assurance mechanisms of internal audits and an independent technical audit. For the purposes of financial management, WUAs would be still required to follow simplified rules, procedures and guidelines including maintaining simple records regarding the grant funds received and subsequent transfers to beneficiary household bank accounts. Any grants funds remaining unutilized at the WUA at project closing may have to be returned back to IDA. After the completion of construction of latrines in each eligible village, the WUA will submit the list of beneficiaries including beneficiaries' confirmation to the DSU confirming construction of latrines using IDA funds.

31. Each WUA receiving the grant will have to have a dedicated bank account opened to receive funds from DSU and use this account to carry out fund transfers to eligible beneficiary household bank accounts. DSU will have adequate monitoring mechanisms to monitor the use of incentive grants by the beneficiary households and WUAs to ensure that the funds are used for intended purposes. The details of this component managed through incentive grants will be elaborated in the FM manual which is part of Operational Manual covering the required aspects

such as eligibility criteria, fund flow mechanisms, accounting, record keeping and reporting, and other relevant FM arrangements would be available by negotiations. For all other expenditures, IDA disbursements would be on actual expenditures. The Operational Manual is expected to be ready by the Project Negotiations.

32. *Accounting Policies and Procedures*. All funds for the Project will be routed through the PMU which will be responsible for funding all project expenditures, accounting for them, and for reporting on the financial and physical progress of the project. Coordination will be required with the DSUs for the various activities and hence close liaison will be required with the accounting staff of these DSUs in all areas of FM.

33. The PMU's and DSUs accounting practices will be governed by the GoSL Financial Regulations. For the project, the PMU and DSUs will maintain accounts on the cash basis of accounting and will also comply with the government finance regulations and applicable circulars. Separate accounting records will be maintained for the project by each of the DSUs and PMU. Bank accounts will be reconciled on a monthly basis and trial balances and financial statements will be prepared on monthly basis to facilitate monitoring of the progress of the project.

34. NWSDB, in normal course of business, uses a tailor made computerized accounting system named Virtual Private Network (VPN).The systems have password controls and audit trials. The systems are made on line with the Regional offices and financial statements up to the Income and Expenditure statement are generated at Regional level. The systems facilitates generation of expenditure reports by budget classification thus enabling comparing with the budget and monitoring expenditure against the budget. For the project, it is advised that a separate chart of accounts that enable separate accounting for the project is created in the NWSDB regular accounting system.

35. *Internal Audit*. In addition to the annual financial statement audit, the Project will be subjected to an internal audit. It is envisaged that the project internal audit will be carried out by the internal auditors attached to MUDWSD and NWSDB. An internal audit team will be appointed comprising of representatives of both MUDWSD and NWSDB to carry out the internal audit of the project by 31st December 2015, by secretary MUDWSD. The findings of the internal audit team will be reviewed by the internal audit committee appointed for the project. The internal auditors will assess whether the funds have been disbursed on a timely basis and used effectively and efficiently for the intended purposes. The internal audit will also examine the physical and qualitative aspects of the assets constructed or procured under the project. This will provide further assurance on the legitimacy and the eligibility of the payments made from the credit proceeds.

36. The project internal audit report will be addressed to the Secretary of the MUDWSD with a copy to the Project Director (PD) to initiate necessary follow up actions as required. The PMU will share the internal audit reports with the Bank within 60 days of end of each quarter.

37. *External Audit*. The annual financial statements of the project will be prepared by the PMU and audited by the Auditor General of Sri Lanka. This is the supreme audit institution of the country and ensures full transparency and provides reasonable assurance to all the stakeholders on the use of project funds. The external audit will cover project activities carried out by all project agencies and all payments made from the various project accounts. The external audits would be

conducted every fiscal year and will be submitted within 6 months of the end of the fiscal year. These external auditing arrangements will be agreed with the Auditor General's Department of Sri Lanka. The PMU is responsible for the timely submission of the annual audited financial statements to the Bank.

38. *Audit Reports*. The following audit report will be monitored in the Audit Reports Compliance System in PRIMA. According to the Bank's Access to Information Policy, the audit reports received by the Bank for the project will be disclosed in the Bank's external Website for public access.

Implementing Agency	**Audit Report**	**Auditor**	**Date**
PMU	Project Annual Financial Statements	Auditor General	June 30 each year

39. *Financial Covenants*. The Financial covenants are: (i) audited annual project financial statements to be submitted to the Bank no later than six months of the following fiscal year; and (ii) consolidated project IUFRs to be submitted to the IDA no later than 45 days following the end of the reporting quarter.

40. *Disbursement Categories.* IDA will finance 100 percent of eligible expenditures including taxes for goods, works, non-consulting services, consulting services, training and workshops, incremental operating costs of the project. There is a GoSL contribution that will be required to fund salaries and allowances of GoSL civil servants who would be working for the project which is estimated at about US$ 2.7 million. IDA financing percentage for incentive grants will be at 100% with a fixed incentive grant per beneficiary household amounting to Rs. 35,000/-

41. The proceeds of the IDA credit will be disbursed against eligible expenditures in the following categories:

Category	**Amount of Financing Allocated (in USD Million)**	**Percentage of Expenditures to be Financed (including taxes & duties)**
(1) Goods, works, non-consulting services, consultants' services, and Training under parts 1, 2, and 3 of the Project	146.14	100%
(2) Grants under Part 1 of the Project	11.58	100%
(3) Goods, non-consulting services, consultants' services, and Incremental Operating Costs under Part 4 of the Project	7.28	100%
Total	165.0	

42. *Incremental Operating Costs* (IOC) include the normal expenditures of the project such as reasonable costs of goods and services required for the day-to-day implementation of the Project including maintenance of vehicles and equipment, fuel, office supplies, utilities, consumables, office rental and maintenance, bank charges, advertising expenses, travel of staff (including per

diems, accommodation), and salaries of selected contracted support staff, but excluding salaries of officials of the Recipient's civil service. GoSL would provide budgetary allocation for the counterpart funding under the project to finance salaries of GoSL staff as required.

Procurement

43. Procurement for the proposed project would be carried out in accordance with: World Bank's "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 revised July 2014 (Procurement Guidelines); "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 revised July 2014 (Consultant Guidelines); and the provisions stipulated in the Financing Agreement. Unless otherwise agreed with the Bank, the Bank's Standard Bidding Documents, Requests for Proposals, and Forms of Consultant Contract will be used.

44. In case of conflict between the Bank's procurement procedures and any national rules and regulations, the Bank's procurement procedures would take precedence. The general descriptions of various items under different expenditure categories are described below. For each contract to be financed by the Credit, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frames are agreed between the Borrower and the Bank project team and included in the initial Procurement Plan. The PMU has prepared a detailed, project-specific, Procurement Administration Manual that further elaborates the project procurement methods, procedures, arrangements, including arrangements for disclosure, complaint handling and procurement audits. It has also completed a detailed matrix for procurement related corruption mapping and mitigating actions that would be used as an anti-corruption guiding document for the project.

45. *Procurement Implementation Arrangement.* The PMU will be responsible for all procurement activities including monitoring and reporting. Bidding process for procurement below the Ministry's threshold will be handled by the PMU. The bidding process for higher value contracts will be handled by the Procurement Division of the MUDWSD on request through the PMU. Bidding documents drafted by the respective implementing units irrespective of the value will be reviewed by the procurement staff attached to the PMU. The PMU will be staffed with a Procurement Specialist, supported by a Procurement Officer. Additional procurement support will be needed when the project becomes fully functional.

46. *Procurement of Works.* Works procured under this project shall be procured following ICB, NCB, shopping, and may involve force account in some cases. Bank standard documents will be used for ICB contracts. Standard Bidding Documents of the Borrower as agreed with the Bank will be used for NCB contracts. Procurement of such works shall be guided by the provisions applicable to those as laid down in the corresponding paragraphs of Procurement Guidelines as well as in the Procurement Administration Manual of the project.

47. *Procurement of Goods and Non-Consulting Services.* Goods and Non-Consulting Services procured under this project shall be done using Bank's SBDs for all ICB and National SBDs agreed with (or satisfactory to) the Bank for all NCB and Shopping.

48. *Requirements under National Competitive Bidding (NCB).* In order to ensure economy, efficiency, transparency and broad consistency with the provisions of the Procurement Guidelines, goods, works, and non-consultant services procured under the National Competitive Bidding (NCB) method shall be subject to the following requirements:

i. Only the model bidding documents for NCB agreed with the Bank shall be used for bidding;
ii. Invitations for bids will be advertised in at least one widely circulated national daily newspaper, and bidding documents will be made available at least twenty one (21) days before, and issued up to, the deadline for submission of bids;
iii. Qualification criteria will be stated in the bidding documents, and if a registration process is required, a foreign firm declared as the lowest evaluated responsive bidder shall be given a reasonable time for registering, without let or hindrance;
iv. Bids will be opened in public in one location, immediately after the deadline for the submission of bids, as stipulated in the bidding document (the bidding document will indicate the date, time and place of bid opening);
v. Except in cases of *force majeure* or exceptional situations beyond the control of the implementing agency, the extension of bid validity will not be allowed;
vi. Bids will not be rejected merely on the basis of a comparison with an official estimate;
vii. Except with the prior concurrence of the Bank, there will be no negotiation of price with bidders, even with the lowest evaluated bidder;
viii. A bidder's bid security will apply only to the specific bid, and a contractor's performance security will apply only to the specific contract under which they are furnished; and
ix. Bids will not be invited on the basis of percentage premium or discount over the estimated cost, unless agreed with the Bank.

49. *Selection of Consultants.* Major consultancy services to be procured shall follow the World Bank guidelines for selection of consultants and standard documents of the Bank shall be used. Short lists of consultants for services estimated to cost less than $500,000 or equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. The Bank's Standard Request for Proposal (RFP) (October 2011) will be used as a base for all procurement of consultancy services under the Project. The following methods will be applicable for selection of consultants, consistent with the relevant sections of the Bank's Consultant Guidelines:

a. Quality- and Cost- Based Selection (QCBS).
b. Quality-Based Selection (QBS).
c. Least Cost Selection (LCS).
d. Fixed Budget Selection (FBS).
e. Selection based on Consultants' Qualifications (CQS): for services estimated to cost less than US$300,000 equivalent per contract, in accordance with the provisions of paragraph 3.7 of the Consultant Guidelines.
f. Single-Source Selection (SSS).
g. Procedures set forth in paragraphs 5.2 and 5.3 of the Consultant Guidelines for the Selection of Individual Consultants.
h. Sole Source Procedures for the Selection of Individual Consultants.

50. *Thresholds for Procurement Methods and Prior Review*. Review thresholds and requirements for different methods of procurement of works, goods, non-consulting services and selection of Consultants based on the current procurement risk rating are listed in the table below. These thresholds and review requirements may be modified on the basis of reassessed risk ratings during project implementation in agreement with the Bank.

Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value (Threshold)	Procurement Method	Contracts/Processes Subject to Prior Review
Works	>= US$10,000,000	ICB	All contracts.
	<US$10,000,000	NCB	All contracts over US$5million equivalent. All other contracts subject to post review.
	<=US$50,000	Shopping	All contracts subject to post review.
	<=US$50,000	Force Account	All contracts subject to post review.
Goods	>=US$1,000, 000	ICB	All contracts.
	<US$1,000,000	NCB	All contracts over US$500,000 equivalent. All other contracts subject to post review.
	<=US$50,000	Shopping	All contracts subject to post review
		DC	All contracts costing more than US$50,000 equivalent. All other contracts subject to post review.
Consultant Services (firms)	>=US$500,000	All competitive methods; advertise internationally	All contracts.
	<US$500,000	All competitive methods; advertise nationally	All contracts over US$200,000 equivalent. All other contracts subject to post review.
	<US$300,000	CQS	All contracts costing more than US$200,000 equivalent. All other contracts subject to post review.
		SSS	All contracts costing more than US$50,000 equivalent. All other contracts subject to post review.
Individual Consultants		IC (Section V of Consultant Guidelines)	All contracts over US$100,000 equivalent. All other contracts subject to post review.
		IC- Sole source	All contracts costing more than US$50,000 equivalent. All other contracts subject to post review.

51. *Post Review*. Contracts below the prior review threshold for goods, works and consultancy services will be subject to post review, as per the procedure set forth in paragraph 4 of Appendix 1 of the Bank's Procurement and Consultant Guidelines. The Borrower shall retain complete documentation for each contract and make it available to the Bank or its nominated consultant for carrying out the post review. At least 20 percent of contracts that have not been prior reviewed would be post reviewed. The procurement risk rating for the project is 'High'.

52. *Assessment of Procurement Capacity*. The PMU will be staffed with a Procurement Specialist supported by a procurement officer. Additional procurement support will be needed when the project becomes fully functional. The main procurement risks identified by the assessment were:

a. Absence of a systematic procurement performance and compliance monitoring mechanism at country level.

b. Complaint redressal system has to be streamlined.

c. Poor implementation of public disclosure procurement actions.

d. Possible collusive practices among contractors in the procurement of works.

e. Inherent weaknesses on fiduciary risks of transparency and fairness in goods and works contracts.

f. Varying market capacity in designing appropriate qualification requirements as per Bank's SBD Goods and Works with an ability to influence the market in receiving appropriate pricing and delivery commitments

g. Inadequate experience in contract administration

53. Risk management measures which have been agreed are:

a. A procurement team headed by an experienced procurement specialist and supported by experienced procurement officers, and dedicated to the project, will support the PMU. Having procurement staff with engineering background will be an added advantage.

b. Procurement staff will be imparted training, specifically on fraud and corruption flags, and on addressing complaints.

c. The Procurement Administration Manual will include procurement procedures to be followed under each component of the project, together with standard/model documents, formats and templates to be used, as agreed with the Bank.

d. The PMU will prepare and forward to the Bank an annual procurement progress report, which will include, *inter alia*, procurement plan updates, action on findings of post reviews and other procurement and contract administration issues.

e. The PMU will implement a monitoring mechanism for procurement, which will include implementation, as well as the defects liability phase and warranty phase of contracts.

f. The following 3 key indicators will be used for assessing procurement performance and procurement risk rating:

   i. Percentage of procurement activities which have more than 15 percent delay from the original bid validity period in bid/proposal evaluation.

   ii. Percentage of contracts which have more than 15 percent modifications by value.

   iii. Percentage of contracts with completion period extended by 10 percent of the original contract period.

g. Percentage of procurement activities which had complaints.

h. Corrective actions will be to address deficiencies identified by the Bank post reviews.

54. *Disclosure.* The following documents will be disclosed on the Borrower's Website: (i) procurement plan and updates; (ii) invitation for bids for goods and works for all ICB and NCB contracts; (iii) request for expression of interest for selection/hiring of consulting services; (iv) contract awards of goods and works procured following ICB/NCB procedures; (v) list of contracts/purchase orders placed following shopping procedure (on a quarterly basis); (vi) short lists of consultants; (vii) contract awards for all consultancy services; (viii) list of contracts under DC or CQS or SSS (on a quarterly basis); and (xi) action taken report on complaints received (on a quarterly basis).

55. The following details shall be published in the Bank's external website and United Nations Development Business (UNDB): (a) invitation for bids for procurement of goods and works using ICB procedures, (b) request for expression of interest for consulting services with estimated cost more than $500,000, (c) contract award details of all procurement of goods and works using ICB procedure, (d) contract award details of all consultancy services with estimated cost more than $500,000, and (e) list of contracts/purchase orders placed following SSS or CQS or DC procedures on a quarterly basis.

56. *Complaint Handling.* A complaint handling mechanism for the project will be developed and will be published on the Borrower's website. On receipt of complaints, immediate action will be initiated to acknowledge the complaint and redress in reasonable time frame. All complaints received will be forwarded to the Bank for information and the Bank will be kept informed after the complaints are redressed.

57. Procurement Plan (PP). The initial procurement plan for the first 18 months of project implementation, acceptable to the Bank has been prepared by the PMU. This plan has been agreed between the PMU and the Bank on May 21, 2015 and is available at the PMU website, NWSDB website, MUDWSD website, and in the Bank's external website. The Procurement Plan will be updated annually or when required to reflect project implementation needs and improvements in institutional capacity. SEPA, the web based procurement plan execution and management tool, will be rolled out during the first three months of the project implementation.

58. *Frequency of Procurement Supervision.* In addition to the prior review of high value contracts, supervision to be carried out from Bank offices, the capacity assessment of the implementing agencies has recommended semi-annual supervision missions to visit the field to carry out reviews of procurement actions. In addition to the prior review of contracts by the Bank, at least 20 percent of the contracts that have not been prior reviewed would be post reviewed in terms of the Bank Guidelines given the procurement risk rating for the project is 'High'.

59. *Capacity Building.* Project staff will be given adequate procurement training through a comprehensive capacity building program. Junior staff will be trained on-the-job. Bank procurement staff will assist in rolling out the capacity building program. The key procurement staff of the PMU and the implementing agencies would be trained on procurement procedures pertaining to Bank Financed projects in general and specific to the project in particular. A workshop would be conducted for Procurement Staff and other key staff of the PMU and all the implementing agencies to align them with the Bank's procurement procedures as well as to

introduce methods for identifying and mitigating risks, including corruption mapping and risk mitigation actions.

60. The PMU would disseminate and conduct training on Procurement Administration Manual. In addition, the Bank would facilitate training sessions on Government's procurement policy and procedures as applicable to Bank financed projects as a measure to avoid potential confusion between the government procurement procedures vis-a-vis Bank procurement procedures. Both short-term local and overseas training would be provided to select key staff in line with the actual requirements of the project. Several measures are being introduced as indicated in the Corruption Risk Mapping and Mitigation Action Plan for improving governance in procurement and to minimize procurement related corruption risks under the Project. Action would be taken to establish a system of handling complaints; and a procurement website as indicated in the Corruption Risk Mapping and Mitigation Action Plan. With these risk mitigation measures, procurement risk rating is likely to be improved and would be reviewed and reassessed during the supervision missions for adjustments.

III. Environmental and Social (including safeguards)

Environment

61. As evident from the World Bank-financed Community Water Supply and Sanitation Project 2 (CWSSP2) and the North East Pilot Water and Sanitation Project (NEPWASH), construction impacts of water supply and sanitation facilities are not very serious and can be managed with good environmental planning and management practices at site. However, there are larger issues of concern with implications for project design and implementation. One that would require attention during the design and implementation of water supply schemes is the long-term safety and management of the water resources. First, this includes water scarcity and potential conflict among different water use groups. The project will be implemented in several districts with widely varying climatic conditions and substantial water shortages are often experienced, especially in the dry zone districts. Although small town and rural water supply schemes may not involve large scale abstraction that results in significant depletion of water resources, it is necessary to consider potential conflicts and water source capacity viz. a. viz. the existing/projected demand during the design stage of sub-projects, for both ground and surface water resources.

62. Second is the possible contamination of water resources through agricultural run-off, improper disposal of sewage and solid waste and other adverse land-use developments that take place in the catchment, subsequent to project development, that can lead to water source deterioration. While source water quality testing will be an integral part of sub-project development, regular water quality testing and implementation of basic water safety plans should be streamlined into scheme operation and maintenance. The project will take a pragmatic approach and capitalize on the GoSL's decision to introduce water surveillance and safety planning for all types of water supply schemes and operators.

63. Currently, none of the project served areas have sewage collection or treatment facilities. Septage collected by gully bowsers is currently disposed of at open dumpsites maintained by the local authorities, which pose a major environmental and health hazard. The project will finance

small scale septage treatment facilities in selected townships where septic waste will be treated to national standards before discharging to the environment.

64. With the provision of pipe borne water supply to communities, the risk of increased generation of wastewater that is improperly disposed may arise. Under the World Bank financed CWSSP 2 and North East WASH Projects, wastewater management from increased access to water was not observed to be a major issue in the rural areas as water is mainly used for drinking purposes only. However, this issue in town areas could be of more significance. The NWSDB will be encouraged to assess the extent of the problem and develop suitable wastewater management solutions.

65. The demand-responsive approach adopted under this project means that the participating communities and sub-projects are yet to be identified. As such, the MUDWSD has prepared a comprehensive Environment Assessment & Management Framework (EAMF). The EAMF identifies environmental concerns that require attention during the design and implementation stages of sub-projects and recommends a process for the early identification and mitigation of potential impacts in all categories of sub-projects.

66. As a routine, the project environmental staff, together with the communities and the Partner Organizations (POs) in the case of rural schemes, will undertake an early environmental planning exercise using the environmental screening form given in the EAMF. The screening form covers all important elements in an Environmental Analysis (EA) in a structured questionnaire manner and will capture potential environmental issues early in the sub-project cycle to recommend way forward based on the significance of issues identified. As per the EAMF guidelines, a detail EA will be warranted in the event that significant environmental issues are anticipated, if not, the project could proceed with an Environmental Management Plan (EMP). Water Safety Plans (WSP), with a focus on watershed management and water quality monitoring, will be considered a product of the EMP.

67. The EAMF has been applied to the year 1 investments which are comprised of 2 ground water and 1 surface water extraction schemes. Accordingly, safeguard assessments for all schemes have been completed which has been inclusive of public consultation of potentially benefitted and affected people at the sub-project level. The EAMF has been reviewed, cleared and publically disclosed both locally and via Infoshop.

68. The main responsibility for ensuring compliance with environmental safeguards requirements will be borne by the PMU which will be supported by a full-time environmental specialist. Among its key tasks, the PMU will be responsible for providing overall environmental safeguards management supervision and direction, review and endorsement of sub-project specific safeguard assessments, capacity building for effective safeguards management to the implementing agencies and progress reporting to the World Bank. In addition, the district project implementation units will be supported by environmental officers who will act as the nodal point directly responsible for day-today implementation of environmental safeguards at the district level.

69. Technical capacity to undertake environmental screening, detailed EAs, EMPs and water safety plans will be developed within the project implementation units as well as in the participating institutions under training programs supported by the project. Review and clearance

of sub-project level environmental screening and EAs will be undertaken by the PMU and in the case of "Category B sensitive" type of sub-projects, concurrence of the World Bank will be required.

Social

70. *Social Safeguards.* All efforts will be taken to utilize State land as much as possible for the infrastructure development. However, preliminary social assessments point to the need for additional land for water asset development due to lack of suitable State land in some project locations. There may be situations where State land in urban areas is already encroached by illegal settlers or squatters. Alternatively, in rural areas, past experience shows the possibility of obtaining small plots of land through voluntary donations. Nevertheless, OP 4.12 on Involuntary Resettlement has been triggered for the project and a Social Management Framework (SMF) has been prepared to provide guidelines for the identification of social risks and the policies and regulatory frameworks for instituting mitigation measures that need to be adopted to address any adverse social impacts. The SMF has been disclosed both locally and in the Bank Infoshop. In addition, social screenings for three urban projects (Galigamuwa, Pambahinna, and Mullaithivu) have been carried out. The findings from the social screenings show that subproject interventions will be not have any adverse social impacts leading to resettlement or displacement of persons. However, there will be minor and temporary disturbances and inconveniences to public life during civil construction work. Such construction related impacts will be addressed through a mitigation plan to be implemented by the contractors which will be monitored by the PIA. The social screenings also point to the absence of the communities of Indigenous People in the subproject areas. Therefore the OP 4.10 is not triggered.

71. *Gender*. The project envisages the participation of both men and women in realizing its goals and objectives as well as ensuring its sustainability. Therefore, gender considerations have been incorporated into the SMF to ensure participation of men and women throughout the project cycle including sharing of project benefits. Water and sanitation is key to household wellbeing and community livelihood improvement. With its main thrust on the reduction of poverty and vulnerability, the project will carry out gender assessments and consultations. Consultations with men and women will focus on eliciting their perceptions, issues, priorities and suggestions. Outcomes of the consultations will be incorporated into in project designs and planning. Furthermore, active participation of women in Water User Associations and Social Audit Committees to be formed under the project will be assured by assigning a quota for women's representatives, for example, one third of the total membership. Women's participation in those community level associations and committees will facilitate them to perform a dynamic role in designing, planning and the management of micro level water supply systems and sanitation facilities.

72. The Project level M&E system will also include among others a set of gender sensitive indicators that measure the project's impact on women. In this regard, the staff of the client agency will be trained to adopt gender sensitive M&E indicators in project progress review and monitoring processes. Educated young women selected from subproject locations will be assigned to facilitate community mobilization processes which are an essential part of the project preparatory stage. Overall, the project will have significant positive social impacts on women in terms of access to improved water and sanitation facilities, decrease of their burden of having to draw water from

faraway places while waiting in queues and saving of their time in which could be utilized to engage in productive activities.

73. *Citizen Engagement & Grievance Redress System.* The project will introduce the Citizen Engagement Model. Engagement of citizens is anticipated at two different levels:

i. At the subproject level, Social Audit Committees (SAC) will be established. The SACs will be constituted by CBO leaders and the representatives of women and youth from the respective Grama Niladhari divisions where subprojects are implemented. A Social Audit system will not only provide a mechanism to receive citizen's feedback but also to ensure accountability on the part of service deliverers. Furthermore, it allows the beneficiary participation in the process of project management. Sub project level SACs will have responsibility of overseeing the quality of the work carried out by contractors, implementation of activities related to social and environment safeguards, and providing feedback on the status of project implementation to the district level authorities. Social Audits will be conducted at two different levels, first at the stage of moving from project planning to project implementation; and secondly, at the time of project completion and commissioning.

ii. At project level, sub-project steering committees will be established with representatives from the Water Board, Community Water Department, and Planation Human Development Trust (PHDT) and civil society organizations. These Sub-Project Steering Committees will be entrusted with the tasks of decision making relating to project implementation, reviewing the progress of sub project level implementation including, safeguards, social inclusion and equity aspects, complaints and reports submitted by SACs on the quality and issues of sub project level contacts and taking appropriate action to address any issues arising from project implementation.

74. The project will establish a ***Grievance Redress Mechanism (GRM)*** which will be transparent, objective and unbiased to address any issues or grievances related to both environmental and social safeguards. The GRM will operate at three different levels. The lowest level of the GRM is at the site (sub project) level where the project implementation and/or supervision team at site will keep a feedback register and receive project related complaints or comments or suggestions from the local level stakeholders. The project team will review the feedback and take appropriate actions. The middle level of the GRM will seek to resolve an issue quickly, amicably, and transparently out of courts in order to facilitate activities to move forward. This middle level GRM will be established at Divisional Secretariat/Local Authority level to respond to grievances brought to their notice by the general public and the SACs, WUAs and other stakeholders. The representatives of the local community will also be included as an impartial third party in the grievance redress process.

75. All grievances received will be entered in a dedicated database and updated regularly. Database will include information on the date of receipt of grievance, type of grievance and resolution and the date of resolution. The GRM will be monitored regularly, as it provides important feedback on the functioning of the project.

IV. World Bank Grievance Redress

76. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit www.worldbank.org/grs. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 4: Systematic Operations Risk-Rating Tool (SORT)

SRI LANKA: Water Supply and Sanitation Improvement Project (P147827)

Risk category	Rating	Explanation of the rating	Proposed mitigation
Political and Governance	Substantial	Decision Making and Ownership. Multiple institutional approaches in the sector make the governance and accountability difficult at the institution, and country level.	NWSDB and Ministry of Urban Development, Water Supply and Drainage (MUDWSD) take the lead in sector and in project and coordination capacity and activities will be ensured by a dedicated PMU. The project steering committee chaired by the Secretary of MUDWSD will involve District and Local Governments to ensure inter-agency coordination.
Macro-economic	Moderate	Macro-Economic risks**.** Worsening fiscal deficit and inflationary pressures could affect project costs and portfolio performance.	Close monitoring of macro-economic policy, and continued dialogue with counterparts. For specific projects, managing the risk of inflation would involve providing for sufficient contingency funds.
Sector Strategies and Policies	Substantial	Water supply and sanitation governance and service delivery occur through an array of institutions with often overlapping responsibilities.	Coordination mechanisms between the PMU and line agencies will be formalized to facilitate inter-agency collaboration at an early stage of project preparation.
Technical Design of Project	Moderate	Rural Water and Estate Water design require careful institution arrangements to ensure sustainability.	As part of preparation activities, Bank reviewed and assessed the institution arrangements for Rural and Estate WS service delivery including the roles of the Department of National Community Water Supply (DNCWS) and PHDT. Component 2 will help address the risks and strong participation of the PHDT and DNCWS in project design and implementation will further mitigate this risk.
Institutional capacity for implementation and sustainability	Substantial	1. Capacity constraint at district level. 2. Procurement: Capacity Constraints and weak compliance monitoring in procurement. 3. Financial Management: At implementation agency and PMU level. 4. MUDWSD will take the lead in implementation, however, capacity constraint and effective monitoring	1. A dedicated PMU is required to coordinate the work at district and local level. At project preparation, the PMU will be established and will be guided by the NWSDB and Bank, to ensure timely project preparation and thereafter project implementation. 2. Bank will continuously support on training and professional development programs to strengthen skills and capacities of staff in procurement. Bank will support

Risk category	Rating	Explanation of the rating	Proposed mitigation
		system on project performance, in particular in the rural WSS, could affect long term sustainability of the project.	the client in implementation of effective procurement monitoring mechanism. 3. Bank will support the client on the Financial Management requirements at the time of preparation, and during implementation. 4. The project preparation arrangements are being designed to ensure that local authorities and other central agencies involved in the project retain critical responsibilities with regard to selection, design and supervision of sub-projects. A project monitoring system will be developed. TA to develop effective backstopping support for RWSS.
Fiduciary	Substantial	1. Country Level Fiduciary Risks (Financial Management). Inadequate FM capacity; weak internal and external audit 2. Country Level Fiduciary Risks (Procurement) Capacity constraints, weak internal controls and compliance monitoring, inadequate grievance redress system.	1. Financial Management assessments and procurement assessments of the Water Board was done at the start of the project, to mitigate the associated risks during project implementation. 2. Fiduciary capacity assessment at macro and sector levels; FM capacity building activities in projects; training and Auditor General's Department officials in Value-For-Money audits and investigative audits. 3. The Bank will work with the Ministry of Finance to strengthen the procurement monitoring and oversight functions. The Bank will continue to support training and continuous professional development programs to strengthen skills and capacities of staff in PFM and public procurement.
Environment and Social	Moderate	1. Environmental Risks/Sustainability - Urban water supply sources are affected by competition between major sectoral users; weak protection of water sources, particularly in densely populated or	1. Strong communication efforts to raise public awareness on improved governance, environmental sustainability and such issues, and stakeholder consultations. Better policy on water resource management and allocation, technical

Risk category	Rating	Explanation of the rating	Proposed mitigation
		commercialized areas, can undermine the safety of the traditional sources. 2. Natural Disasters - Could affect development activities and project performance. 3. Environment Safeguards; Water quality and quantity issues at source. 4. Social Safeguards and resettlement issues	assistance for water safety planning etc. World Bank safeguards guidelines applicable to the project will ring fence the water quality issues, in addition to the Government's own guidelines. 2. Country has access to resources for natural disasters through Climate Resilience Improvement Project (P146314) and the Catastrophe Deferred Drawdown Option (P147454). 3. An Environmental and Social Assessment Management Framework (ESAMF) was prepared during the preparatory stage by the client in consultation with the World Bank. The ESAMF will identify and outline procedures proposed to ensure environmental impacts are evaluated and mitigated accordingly. These include, environmental assessments, Environmental Management Plans (EMPs), specifications in bid documents, monitoring plans etc. which will be followed during project implementation at the subproject level. In addition the ESAMF will also outline the required enhanced assessments that will be required of water sources in districts located in dry zones during sub project preparation to reduce risk of source failure during subsequent operations. 4. The ESAMF will also help understand the broader social impacts and mitigation measures for adverse impacts. Based on the ESAMF, Resettlement Action Plans (RAP) will be prepared for sub projects that may have resettlement and livelihood impacts due to land acquisitions, if any. As per the initial information on project area, there will be no impacts anticipated on

Risk category	Rating	Explanation of the rating	Proposed mitigation
			indigenous people but the social assessment will verify the social safeguards requirements of OP 4.10.
Stakeholders	Substantial	1. Limited financial autonomy and sustainability of NWSDB due to current tariff policy/structure and weak accountability of the NWSDB at the Province level. 2. Weak CBO management of RWS schemes due to capacity constraints and absence of formal institutional arrangement for technical/administrative backstopping to CBOs is a barrier to long term sustainable service delivery in rural areas. 3. Unclear mandate and role of the newly established Department of National Community Water Supply	1. Government Policy envisage to mitigate the risks associated with NWSDB: (i) transform NWSDB into a commercially viable institution and set a tariff scheme based on the principles of cost recovery and the customer's ability to pay; (ii) improve efficiency of Provincial and Local Authorities in terms of managerial, technical and financial capacities, and (iii) reducing reliance on foreign funding to finance water and sewerage infrastructure. 2 & 3. The Government has established the Department of National Community Supply (DNCWS) as a success to the National Community Water Trust (NCWT) to help build capacity of community managed RWS schemes. The project will provide substantial support to operationalize the DNCWS under Component 2 and help ensure sustainable CBO managed schemes. A formal arrangement to be agreed in each Province to provide for continuous technical and administrative backstopping support to CBOs, with collective efforts of NWSDB HQ, RSCs/DSUs, DNCWS and the PCs/LAs (Provincial Councils/Local Authorities).
OVERALL	**Substantial**		

Annex 5: Implementation Support Plan

SRI LANKA: Water Supply and Sanitation Improvement Project (P147827)

1. The project will be implemented in seven districts spread across four of the nine provinces in Sri Lanka. Five districts are adjoining one another in and around the central hills of the country and to the east and south east of Colombo. The two other districts are in the north of the island. The project will have a Project Management Unit (PMU) set up under the main counterpart (MUDWSD), based in Colombo, and with whom the Bank's core team will interact on a regular basis. Given the geographic spread of the project area and to facilitate coherent planning and at the level of the district and across sub-sectors; the PMU will depend on the present NWSDB structure and its chain of command to the district office to implement the project. The existing District Units under the NWSDB will be used as District Support Units (DSUs) within the administration and implementation arrangements for the entire project, where staff of DNCWS, PHDT, and NWSDB work together to implement the project activities, under the supervision of PMU.

2. Implementation Support Consultants (ISCs) will be engaged to provide support to the PMU and DSUs in the design and construction supervision of the water supply subprojects and also for project monitoring and reporting. Whilst the ISCs report to the PMU; they are also entrusted with the task of preparing progress reports in a format acceptable to the Bank. The ISCs will seek the assistance of the POs appointed at the level of the subprojects to gather the data from grass root level to enable accurate reporting of implementation status.

3. In addition to formal supervision missions it is anticipated that the Clients will need focused support particularly in the early period of implementation. In this regard, the Bank team will mobilize staff and consultants as needed to provide timely advice.

4. The Bank recognizes that the DNCWS is in its formative stage and will require intensive support during project implementation to build its capacity to undertake the functions mandated to it by the Government. The Bank expects that in the interim period, the NWSDB and other consultancy support would cover any shortfall of expertise in the Department. However, the project objective is to build capacity and assist the Department to become fully operational and fulfilling its mandate within the project period.

5. Bank Implementation Support missions will be undertaken at least twice a year with a team of specialists which will include the TTL, co-TTL, procurement and financial management staff, environmental and social safeguards staff, and technical and institutional specialists and consultants, as appropriate. The Bank team will start the formal mission with discussions with the MoF, MUDWSD, the PMU and representatives of the DSUs. This will be followed by visits to the districts on a rotating basis.

6. Additional informal progress review visits will be undertaken once every two months covering at least two districts at a time. The task team will seek the assistance of the PMU and DSUs in reviewing the implementation progress in each district in these visits.

7. The Bank's supervision of the project would focus on the following areas;

a) Institutional Arrangements: The Bank team will review the implementation of the PMU and the decentralized arrangements, including roles and responsibilities of all the different actors (NWSDB, DNCWS, PHDT, ISC and other stakeholders) under the project implementation arrangements.

(i) Implementation Progress of Water Supply and Sanitation Schemes: The Bank team will review the progress in the implementation of the schemes in each DSU and will address related issues (if any).

(ii) Safeguards: The supervision of the safeguard aspects of the Project will entail verification that the Environmental and Social Assessment Management Plan is being appropriately implemented, and adjusted as deemed necessary.

(iii) Procurement: Implementation support will include: (i) *ex-ante* and *ex-post* reviews of Project procurement; (ii) review of the Procurement Plan and procurement performance; and (iii) providing information on training resources, preparation of training material and modules and needs-based training on the Bank's procurement guidelines to the implementing agencies. In addition, guidance on the any necessary revisions to the Procurement Manual, the Procurement Plan and the bidding documents will be provided by the Bank's procurement specialist as deemed necessary based on actual implementation experience. The Bank implementation team will make recommendations for any improvements as judged necessary.

(iv) Financial Management: The Project would require an in-depth and intensive supervision in the initial years, especially to ensure successful implementation of the agreed FM arrangements. This will include field visits to the DSUs to review the FM arrangements. Implementation support will also include the review of the periodic IFRs as the basis for disbursements and reporting expenditures, and review of the audit reports including verifying the adequacy of the resolution of major audit observations.

(v) Monitoring and Evaluation: The M&E System will be designed to monitor processes, inputs, outputs and outcomes, and capture the physical implementation progress, disbursement and delivery against the project's Results Framework. M&E data and information will be transparently disclosed.

8. Mid Term Review: A comprehensive mid-term review would be conducted to review the implementation performance of all aspects of the Project and to discuss, agree and take any mid-term course corrections deemed necessary.

9. A five year implementation schedule was prepared which includes the water supply implementation phases for the three sub-sectors (details included in the Operational Manual).

Annex 6: Economic and Financial Analysis

SRI LANKA: Water Supply and Sanitation Improvement Project (P147827)

I. Economic Analysis

1. **Background.** The proposed project will support investments in water supply and sanitation infrastructure, as well as provide technical assistance to enable sustainable service delivery and broader sector development. Financial support provided will impact beneficiaries in urban, rural and estate sub-sectors of seven districts selected strategically to address poverty and access. The project will finance piped water supply for uncovered populations in the three sub-sectors. Water supply in urban areas will be limited to small towns. Rehabilitation of incumbent systems will also be undertaken in select areas. Under sanitation, financial support will be provided for construction of district level septage treatment plants and purchase of gully suckers for urban areas, and construction of pit latrines in rural areas and estates.

2. In the absence of safe water supply and sanitation, poor households usually face higher coping costs. Poor living conditions make them more susceptible to water-borne and hygiene related illnesses, and the situation is often worsened by their dependence on daily wages and poor access to proper health care. This project will generate large economic benefits especially because of its focus on rural and estate sub-sectors which are characterized by poor economic and health indicators.

3. **Economic Analysis.** An economic analysis has been carried out to quantify and compare costs and benefits of the project. The set of project beneficiaries includes approximately 530,000 people (132,500 households) living in the project areas.

4. **Project Costs.** The total project cost net of transfer payments in the forms of taxes and duties but inclusive of community contributions is estimated to be USD 166.7 million, of which USD 145.1 million will be allocated to investments in water supply and sanitation, and the rest to Technical Assistance, capacity building and project management. For purposes of the economic analysis, costs of providing piped water supply schemes, costs of constructing toilets (both Bank subsidy and beneficiary contributions) and costs of community mobilization and project administration are included. Of these, capital investments in piped water schemes and construction of toilets account for approximately USD 118.7 million.

5. **Project Benefits.** Households which will receive piped water supply under the project currently depend on unimproved sources like unprotected wells, rivers, streams, tanks and springs. Use of water from such sources exposes them to numerous health risks including CKDu, and requires them to spend considerable resources on collection, storage and treatment. Access to piped water through the project will therefore result in measurable savings in coping costs incurred. Households which will receive new toilets under the project currently use shared facilities or do not use a toilet at all. Shared facilities are often unsanitary due to poor maintenance, and require users to wait longer durations for access. Open defecation on the other hand leads to severe community-wide health problems including diarrheal disease, helminthes infection and malnutrition among children. Access to improved sanitation facilities can therefore be expected to reduce health related expenditure as well as provide residents better living standards. The project's support to construction of district level septage treatment plants and procurement of gully suckers will improve management and disposal of septage thereby leading to decreased environmental pollution.

6. The following economic benefits have been included in calculation of project NPV and ERR:

a. Time savings in collection of water and in accessing unimproved sanitation options
b. Avoided cost of health care due to reduction in incidence of diseases related to use of contaminated water and poor sanitation
c. Increase in number of productive person days due to reduced illness
d. Availability of incremental amounts of safe water for consumption

7. **Methodology for calculation of Economic Returns.** To estimate economic returns, project costs was compared to project benefits. Since interventions across the three sectors differ in terms of planned outputs, number of beneficiary households and estimated unit costs, four economic assessments were undertaken – one for each sector, and one for the entire project. **Project costs** include costs of capital investment and operation and maintenance of services over asset life. A proportionate expenditure on TA and Project Management which are considered vital for realization of project benefits are also included in the total costs. **Project benefits** include benefits arising out of incremental and non-incremental demands for service. Benefits corresponding to non-incremental demands are valued at opportunity costs saved as compared to the 'without project' scenario. Benefits from incremental demand arising due to improved services are valued at willingness to pay. In the absence of better estimates, willingness to pay will be approximated to user charges planned to be collected from beneficiaries.

8. Benefits of reduction in environmental pollution due to septage treatment, local economic development due to project investments and increased system efficiencies due to technical assistance provided are difficult to quantify and have not be included. Intangible benefits like increased convenience due to improved services, improved safety for women due to presence of toilets within household and positive gender impacts due to easing of the responsibility for water collection (which often rests disproportionately on women and children) are also excluded from calculations. Key assumptions of the analysis are stated in Table 1 below:

Table 1: Main assumptions for economic analysis

No.	Factor	Assumption
1.	Number of persons per household	4
2.	Discount rate	10%
3.	Life of capital assets created i. Urban ii. Rural and Estates	 i. 30 years ii. 15 years
4.	Adjustment for taxation	Not required on account of local procurement
5.	Exchange rate (USD to LKR)	130
6.	Inflation	7%
7.	Opex (as a % of Capex) i. Piped water supply ii. Safe sanitation (Pit Latrines)	 i. 5% [11] ii. 2% [12]

[11] Hutton, G. (2012). Global costs and benefits of drinking-water supply and sanitation interventions to reach the MDG target and universal coverage. Geneva: World Health Organization

[12] Based on India data presented in: Tremolet, S. et al. (2010). Financing onsite sanitation for the poor - A six country comparative review and analysis. Washington DC: The World Bank, Water and Sanitation Program

8.	Reduction in diarrheal disease due to improved services: i. In urban areas - Piped water supply ii. In rural areas and estates - Piped water supply and safe sanitation (Pit Latrines)	 i. 45% [13] ii. 60%

9. **Results.** Sub-sector wise economic rates of return and net present values are presented in Table 2. The ERR for the UWSS component is a conservative estimate because benefits of sanitation interventions are not included.

Table 2: Economic analysis results

Sub-Sector	ERR (%)	NPV (US$)
UWSS (Water supply only)	16.31% [14]	34,356,890
RWSS	23.18%	61,316,713
EWSS	33.39%	22,062,018
Overall Project	21.88%	117,735,622

10. **Sensitivity Analysis.** Sensitivity of results to a 10% reduction in the estimated benefits and a 10% increase in costs were assessed. Results are presented in Table 3.

Table 3: Sensitivity analysis results

	Case	ERR (%)	NPV (US$)
UWSS	Baseline	16.31%	34,356,890
	10% increase in costs	14.47%	28,604,041
	10% reduction in benefits	14.28%	25,168,352
RWSS	Baseline	23.18%	61,316,713
	10% increase in costs	19.83%	51,805,709
	10% reduction in benefits	19.49%	45,674,038
EWSS	Baseline	33.39%	22,062,018
	10% increase in costs	29.80%	20,426,352
	10% reduction in benefits	29.44%	18,220,150
Overall Project	Baseline	21.88%	117,735,622
	10% increase in costs	18.94%	100,836,103
	10% reduction in benefits	18.65%	89,062,541

II. Financial Analysis

74. Financial viability for representative urban water schemes using an Internal Rate of Return (IRR) computation has been assessed assuming on-lending of 15 percent of the IDA credit by GoSL to the NWSDB as a loan with the remainder passed as a grant. This on-lending arrangement is

[13] Wolf, J., A. Prüss-Üstun, et al. (2014). "Assessing the Impact of Drinking-Water and Sanitation on Diarrheal Disease in Low- and Middle-Income Countries: A Systematic Review and Regression Analysis." Tropical Medicine and International Health

[14] The ERR for the UWSS component is a conservative estimate because benefits of sanitation interventions are not included.

consistent with the GoSL approach with other donors. No financial analysis has been undertaken for the rural and estate schemes where all capital costs are financed as a grant by GoSL and tariffs are set by the CBOs to recover O&M costs.

75. Main assumptions on financial projections are as follows.

i. Life time of the project is estimated to be 25 years
ii. Investment will be financed on the proportion of 15% of loan funds and 85% of grant funds
iii. Cost of capital is estimated at 7% p.a. based on current WAPLR in Sri Lanka.

76. All the sub projects except for Mullaithivu and Mulankavil, show an IRR greater than the benchmark 7 percent cost of capital used in the country. The results are presented below and indicate that the sub projects are financially viable and sufficiently robust when faced with capital cost increases of 10 percent and revenue reductions of 10 percent.

Table 4: Net Present Values and Internal Rates of Return for Urban Sub-Projects

Sub Project	Investment (Rs. Mill)			Net Present Value at 7% (Rs. Mill)			IRR
	Grant (85%)	Loan (15%)	Total	Base Case	Increase in O&M Costs by 10%	Drop in Revenue by 10%	
1 Siyabalanduwa	778.13	137.32	915.45	237.22	205.61	168.16	18.4%
2 Galigamuwa	1,757.23	310.10	2,067.33	327.41	221.33	157.58	16.5%
3 Haldummulla	663.85	117.15	781.00	0.0	-36.43	-47.83	7.0%
4 Pambahinna	929.73	164.07	1,093.8	113.84	54.39	26.60	11.90%
5 Mullaithivue	875.5	154.5	1,030.0	-168.65	-194.10	-192.68	-
6 Mulankavil	441.15	77.85	519.0	-92.47	-118.18	-116.71	-
All six sub-projects	5,445.59	960.99	6.406.58	414.22	132.64	-	10.9%

77. *Fresh investment in the 12th Year:* The total project life cycle is estimated as 25 years. However, in order to get the optimal operational performance of the WS facility, it generally requires it to upgrade and attend to essential replacements. Therefore, it was estimated that an additional investment of 15% of the original investment should be made in mid-term (year 12) for such upgrading and replacements. This investment too was included in the sub-project cash flow, the NPVs and IRRs of sub-projects presented above.

78. Conclusion**.** *Siyabalanduwa, Galigamuwa, Haldummulla and Pambahinna sub Projects*: Based on the above analysis all these four sub-projects are financially viable based on the cost of capital of 7%. These four sub-projects record higher IRRs ranging from 7% to 18.4%. The negative NPVs of Haldummulla sub-project under the scenario of drop in revenue and increase of cost by 10% are not material. Apart from this negative NPVs, all NPVs are positive under all scenarios. *Mullaithivue and Mulankavil sub-projects:* These two sub-projects record negative NPV and zero IRR. The negative NPVs in relation to these sub-projects are due to comparatively lower customer base resulting in lower demand and revenue and high operational costs. Therefore, these two sub-projects are not financially viable. However, all six sub-projects as one package is financially viable as it records positive NPVs and an IRR of 10.9%. The NWSDB has a single tariff structure for the whole Island. As a result, cross-subsidies are an inherit part of the financing of the Board. In this case, when summed across all six sub-projects the IRR of 10.9%, above the benchmark, and is robust to increase in costs and reduction in revenue.

MAP Of SRI LANKA