



# National Water Supply & Drainage Board



Annual Report 2012

## Mission

Serve the nation by providing sustainable water & sanitation solutions ensuring total user satisfaction

## Vision

To be the most prestigious utility organization in Sri Lanka through technological and service excellence

## Goals

- Increase the water supply and sanitation coverage
- Improve business efficiency
- Improve services to customers and promptly attend to public complaints
- Promote Information and communication technology solutions as a catalyst for business growth
- Ensure greater accountability and transparency
- Promote Human Resource Development
- Facilitate safe drinking water supply and sanitation to rural and underserved communities

## Contents

Message from the Secretary, MWSD	iv		
Notice of the Report	01		
Chairman's Statement	02		
<b>Corporate Governance and Statistical Review</b>			
Key Players	06		
Existing Water Supply Schemes	09		
Corporate Planning	10		
Key Performance	12		
Summary of Operations	14		
Summary of Investments	20		
Employees	23		
<b>Sustainability Report</b>			
Customer Conveniences	28		
Rural Water and Sanitation	30		
Ground Water	31		
Sociological Activities	31		
Non Revenue Water Reduction	32		
Energy Management	34		
Stores Management	35		
Research and Development	36		
Information Technology	38		
Policy Formulation	38		
Institutional Development	38		
New Initiatives	39		
<b>Infrastructure Development</b>			
Ongoing Projects		42	
Projects to Commence Physical Works in 2013		60	
Projects in Pipeline		60	
Planning & Design		61	
Regional Support Centres		66	
<b>Financial and Audit Reports</b>			
Report of the Audit and Management Committee		71	
Financial Statements		72	
Auditor General's Report for the year ended 31st December 2012		105	
Abbreviations		124	
Corporate Information			Inner Back Cover





**His Excellency Mahinda Rajapaksa**  
**The President of Democratic Socialist Republic of Sri Lanka**



**Dinesh Gunawardana, M. P.**  
**Hon. Minister of Water Supply and Drainage**



**Nirupama Rajapaksha, M.P.**  
**Hon. Deputy Minister of Water Supply & Drainage**



## ➤ Message from the Secretary, MWSD



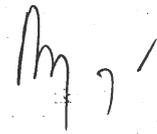
The Ministry of Water Supply & Drainage (MWSD) continued to work closely with the National Water Supply & Drainage Board (NWSDB) in the year 2012 to provide drinking water and wastewater disposal facilities to the public. Facilitation for rural water supply and sanitation also took place through the District Rural Water Supply units established for this purpose.

The number of piped water supply connections of the NWSDB grew from 1,449,301 to 1,587,663 during the year increasing the overall piped water coverage to 43.5%. The piped sewerage coverage stands at 2.3%. In order to increase the number of sewerage connections, a special project has been launched in 2012 to provide new sewer connections on concessionary terms using assistance from the World Bank.

The NWSDB introduced a special service to provide drinking water only for drinking and cooking purposes in remote areas where people are suffering from Chronic Kidney Failure, by transporting purified water through bowsers. Even though it is expensive and unsustainable, this activity was carried out for the people who were unfortunate to suffer from renal failure for which the exact cause is not known.

In response to a declaration made by HE the President, the MWSD has launched a programme to assess service delivery in the water and waste water sector in every District. This assessment is being done with the assistance of the UNICEF by employing an independent consultant. It is expected to complete this assessment in one year.

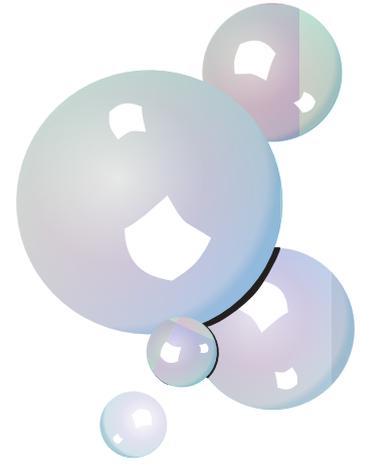
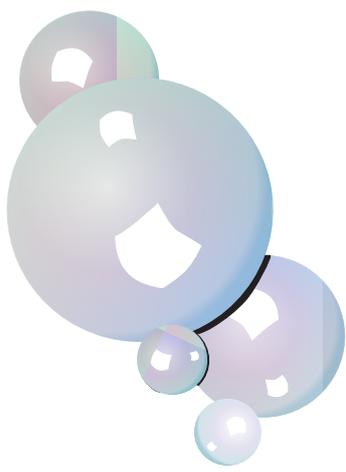
The MWSD is closely monitoring the activities of the NWSDB to ensure that the public are provided with high quality service. I wish success to the endeavours of the NWSDB in achieving this.



**A. Abeygunasekera**  
Secretary  
Ministry of Water Supply & Drainage

28<sup>th</sup> March 2013





## ➤ **National Water Supply & Drainage Board**

The supply of potable water was the responsibility of the Public Works Department (PWD) which was subsequently transformed to the Department of Water Supply in 1965. Thereafter, the National Water Supply & Drainage Board was formed by Act of Parliament in 1975.

The National Water Supply & Drainage Board functions under the Ministry of Water Supply & Drainage which was established in 2007 to cover the subject area of water supply and sewerage separately. The National Water Supply & Drainage Board is the only organization coming under the purview of this Ministry.

Around 84.1% of the population have access to the safe drinking water of which 43.5% is through piped water supply systems. Out of that, 34.0% is covered by piped water supply systems of the NWSDB.

## ➤ **Notice of the Report**

Hon. Minister of Water Supply & Drainage,  
Ministry of Water Supply & Drainage,  
Lakdiya Medura,  
No. 35, Sunil Mawatha,  
Pelawatta,  
Battaramulla.

Dear Sir,

Annual Report and Financial Statements - 2012  
National Water Supply & Drainage Board

In terms of Section 14 (2) of the Finance Act No. 38 of 1971, the members of the Board have the honour to forward herewith the Annual Report and the Financial Statements of the National Water Supply & Drainage Board for the year ending 31<sup>st</sup> December 2012.

Yours faithfully,

**Karunasena Hettiarachchi**  
Chairman  
National Water Supply & Drainage Board

26<sup>th</sup> February 2013

## » Chairman's Statement



“In order to generate its own development funds and not to be dependent on the Treasury, the NWSDB formulated procedures to secure unsolicited proposals from financiers tied with reputed water utility operators and contractors during this year. Several prospective proposals received thus were being studied for acceptability.”

The National Water Supply and Drainage Board has functioned for 38 years and has expanded the provision of drinking water supply and sewerage facilities substantially. In addition, it has embarked on several development initiatives throughout the country. With a view to provide better services with 323 water supply systems in place, the NWSDB mobilizes 9,670 employees spread throughout the country.

The foresight and directives given by His Excellency the President of Sri Lanka have been the main reasons for reaching the level of service as experienced by the beneficiaries of the NWSDB today. It is planned to increase the pipe borne water coverage to 60% by 2020 to achieve the Medium Term Investment Programme of Mahinda Chinthana, Vision for the future. Similarly, substantial increase in the coverage of piped sewerage facilities will be achieved by then.

By the end of 2012, 43.5% of the total population is served with pipe borne water supply and 3.2% of the population uses water extracted from hand pump tube wells. The NWSDB is equipped with modern water treatment plants with full treatment in many townships and purifies water conforming to the Sri Lanka Standards. As at the end of December 2012, the NWSDB has 1,587,663 service connections with a majority being in major townships.

We take this opportunity to thank the Hon. Minister for Water Supply & Drainage for the guidance provided to us to overcome the hurdles that were experienced by us. With his long experience as Minister in charge of Water and Sewerage facilities, we were able to benefit in many aspects of our operations where clear and precise decisions were given timely.

We also recognize the unstinted support given by the Secretary to the Ministry of Finance and the Heads of Departments in the Treasury for the NWSDB to make progress on all its activities. In spite of the outstanding debt service obligations we had towards the Treasury, the assistance provided by the Ministry of Finance with respect to the capital works undertaken by the NWSDB and its day to day operations is noteworthy.

We take this opportunity to thank our partners in development work. Multinational donors and bilateral financiers are in the forefront to give us a hand to provide drinking water and sewerage facilities to the people of the country. It is their willingness to participate in our development programme in the water and sewerage sector that keeps the water industry to bloom.

In order to generate its own development funds and not to be dependent on the Treasury, the NWSDB formulated procedures to secure unsolicited proposals from financiers tied with reputed water utility operators and contractors during this year. Several prospective proposals received thus were being studied for acceptability.

Much emphasis was given for the reduction of Non Revenue Water during the year under review. Regular weekly meetings took place where activities that do not require large investments for this purpose were closely monitored. Concurrently, pipe replacement projects which require large investments have been lined up in crucial areas in Colombo city where the losses are excessive. Part of the pipe replacement work in the heart of Colombo had already commenced during the year under review.

The contribution of engineers for the successful operations and the development initiatives of the NWSDB were very significant. This includes, planning, designs, investigations, feasibility studies, construction, operation & maintenance, process control, optimization, energy conservation which are all taken into careful considerations with a view to economise costs and meeting the global environmental obligations.

It was unable to meet its debt service obligations in full and faced difficulties to meet the escalating power, personnel and chemical costs and therefore had to propose the revision of water tariff charges this year. The NWSDB was compelled to increase the water tariff with effect from October 2012. Meanwhile, the NWSDB was able to earn an operational profit in 2012 for the second consecutive year.

The cooperation and encouragement given by the Secretary to the Ministry of Water Supply & Drainage and the staff attached to the Ministry were a great strength for us to carry out our work. We thank them for the close coordination they provided for all activities that required their intervention for obtaining government clearances and coordination with other Ministries.

We believe that the drinking water and sewerage facilities we provide throughout the island will positively contribute towards the development of the country. We will endeavor to continue this service by simplifying procedures as far as possible to our valued customers.

All advancements made and achievements reached as described in this Annual Report are as a result of the dedicated efforts of the Members of the Board and staff of the NWSDB. The staff members of all categories are urged to continue their good efforts in order to provide a good service to our customers. Meanwhile, there may be lapses on the part of the NWSDB and we request our customers to bear with us for any shortcomings. We will endeavor to have them cleared as we proceed with our operations.



**Karunasena Hettiarachchi**  
Chairman  
National Water Supply & Drainage Board

1<sup>st</sup> March 2013



# CORPORATE GOVERNANCE AND STATISTICAL REVIEW

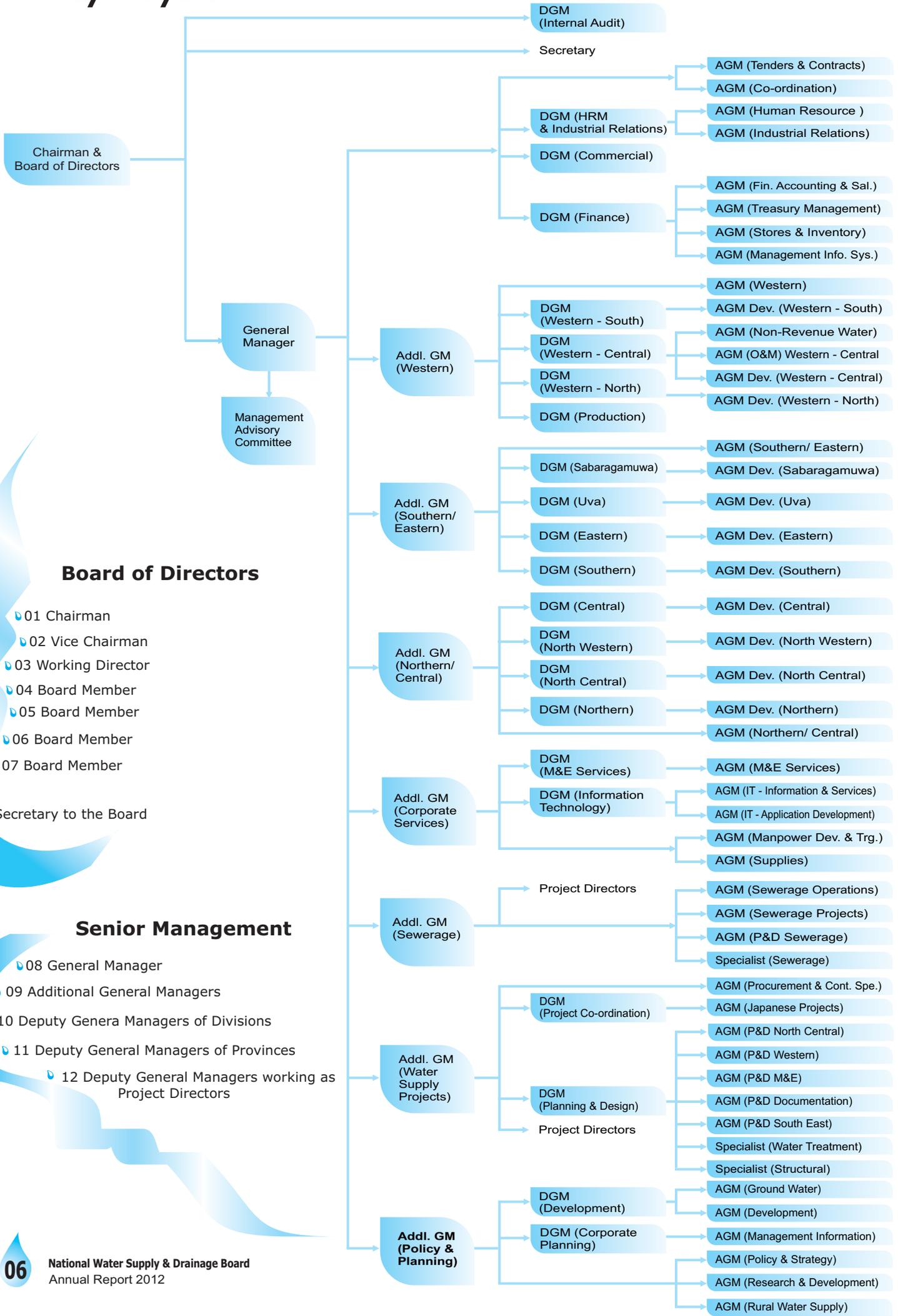
Pure water is the world's  
first and foremost medicine.  
- Slovakian Proverb

*Drawn by:  
T. M. Vindya Nuwangi Thennakoon  
of Holy Family Convent,  
Kurunegala for the  
World Water Day Poster Competition 2012.*





# Key Players



## Board of Directors

- 01 Chairman
- 02 Vice Chairman
- 03 Working Director
- 04 Board Member
- 05 Board Member
- 06 Board Member
- 07 Board Member
- Secretary to the Board

## Senior Management

- 08 General Manager
- 09 Additional General Managers
- 10 Deputy General Managers of Divisions
- 11 Deputy General Managers of Provinces
- 12 Deputy General Managers working as Project Directors

## Board of Directors

### 01 Eng. Karunasena Hettiarachchi

B.Sc. Eng. (Hons.), M. Sc. (Leuven)  
C.Eng., MIE (SL), MIEPSL  
Chairman, NWSDB

### 02 Mr. K. D. Gamini Gunaratne

Vice Chairman, NWSDB

### 03 Mr. N. P. Thibbutumunuwa

LLB, BA  
Working Director, NWSDB

### 04 Dr. P. G. Maheepala

MBBS, M. Sc., MD, MBA, DBS, DED, DMgt.  
Director General of Health Services  
Ministry of Health  
Board Member, NWSDB

### 05 Mr. A. K. Seneviratne

B.Sc. (Hons.), PGD  
(Business and Financial Administration)  
Additional Director General  
Department of National Budget  
Ministry of Finance & Planning  
Board Member, NWSDB

### 06 Eng. Sanath Panawennage

M.Sc., MBA, C. Eng., FIE (SL), MIET (UK)  
Director & CEO, Arthur C. Clarke Institute for Modern  
Technologies, Ministry of Science & Technology  
Board Member, NWSDB

### 07 Mr. W. G. Premalal

B.L.E. MA (Sociology)  
Senior Assistant Secretary  
Ministry of Local Government & Provincial Councils  
Board Member, NWSDB

## Secretary to the Board

### Mr. K. K. Chandrasiri, JP

B.Sc. (Hons.) Business Administration  
PGD (Foreign Affairs), MIM (SL)

The Board met on 16 occasions during the year 2012.

## Senior Management

### 08 General Manager

#### Eng. K. L. L. Premanath

B.Sc. Eng. (Hon.), DSE (Netherlands), M.Eng.  
(Const. Management), C.Eng., FIE (SL)

### 09 Additional General Managers

#### Eng. S. K. Wijetunga (Western)

B.Sc. (Eng.), C.Eng., MIE (SL),  
P.G. Dip. in Sanitary Eng. (Delft.)

#### Eng. B. W. R. Balasuriya (Water Supply Projects)

B.Sc. Eng. (Hon.), M.Sc. (UK), C.Eng., MIE (SL)

#### Eng. G. A. Kumararathna (Sewerage)

B.Sc. Eng. (Hon.), M.Sc. (UK), C.Eng.,  
FIE (SL), MICE (Lond.), MIWEM (Lond.)  
P.G. Dip. in Industrial Eng.

#### Eng. D. S. D. Jayasiriwardene (Southern/ Eastern)

B.Sc. (Eng.) Hons., C.Eng., FIE (SL),  
M.P.H. (Univ. of Hawaii)

#### Eng. D. N. J. Ferdinando (Policy and Planning)

B.Sc. Eng., M. Eng (Env.), MICE (Lon.), MCIWEM (UKL),  
FIE (SL)

#### Eng. (Mrs.) P. N. S. Yapa (Northern/ Central)

B.Sc. (Eng.) FIE (SL), C.Eng. M.Sc. (Struc. E.), UK

#### Eng. K. R. Devasurendra (Corporate Services)

B.Sc. (Eng.) Hons, FIE (SL), C.Eng., P.G. Dip.,  
S.E. (Delft), MCPM

## 10. Deputy General Managers of Divisions

### **Eng. (Mrs.) K. T. P. Fernando (Project Co-ordination)**

B.Sc. Eng. (Hons), MIE (SL), C.Eng.,  
M.Sc. (Water & Waste Engineering) UK

### **Mr. D. Thotawatte (Finance)**

B. Com. (Sp.), ACA, MA (Fin. Econ)

### **Mr. H. Ariyasena**

#### **(Human Resources & Industrial Relations)**

B.Sc. (Business Administration) Sp.  
Dip. in Personnel Management

### **Eng. N. M. S. Kalinga (Production - Western)**

B.Sc. Eng. (Hons), MIE (SL), C.Eng.,  
Dip. Sanitary Eng. (Netherlands)

### **Eng. W. A. N. Wickramathunge (M&E)**

B.Sc. (Eng.), MIE (SL), C.Eng.

### **Eng. W. A. N. Wickramathunge (Commercial) - Covering up**

B.Sc. (Eng.), MIE (SL), C.Eng.

### **Eng. J. Chandradasa**

#### **(Information Technology) - Covering up**

B.Sc. (Eng.), C.Eng., MIE (SL)

### **Eng. D. S. D. Jayasiriwardene (P&D)**

(from 01.01.2012 up to 08.10.2012) - Covering Up  
B.Sc. (Eng.) Hons, C.Eng., FIE (SL),  
M.P.H. (Univ. of Hawaii)

### **Eng. R. H. Ruvinis (P&D)**

(from 09.10.1012 up to 31.12.2012)  
B.Sc. Eng. (Hons) , MBA, FIE (SL), C.Eng.

### **Eng. R. S. C. George (Corporate Planning)**

B.Sc. Eng. (Hons), C.Eng., MIE (SL),  
M.Sc. (Eng.), FRG, MICE (UK)

### **Mr. R. M. A. S. Weerasena (Internal Audit)**

B. Com (Sp.), PGDBM (Col.), ACA

### **Mr. K. Srimal Gallege (Development)**

M.sc Mech. Eng (USSR) M.E.Hyd (India)  
C. Eng. M.I.E. (Sri Lanka)  
Exe. Diploma in Business Admin. (Colombo)  
Dip. in HRM, P.G. Diploma in IR

## 11. Deputy General Managers of Provinces

### **Eng. W. B. G. Fernando (Western - Central)**

B.Sc. (Eng.), P.G. Dip. (EWREM), FIE (SL), C. Eng.

### **Eng. M. K. Hapuarachchi (East)**

C. Eng., MIE (SL), P. G. Dip. in Environmental Engineering Mgt.

### **Eng. (Mrs.) M. K. Bandara (Western - North)**

B.Sc. Eng. (Hons), MIE (SL)  
M.Eng. (Sc.) in Public Health Eng. (NSW), Australia

### **Eng. M. A. M. S. L. Attanayake (Central)**

B.Sc. (Eng.), MIE (SL), C.Eng.,  
P.G. Dip. (Land & Water), MBA

### **Eng. M. I. A. Lathiff (Uva)**

M.Sc. Eng. (Russia), C.Eng., FIE (SL), MIE (India),  
PG Dip., BFA (SL)

### **Eng. L. L. A. Peiris (North Central)**

B.Sc. (Eng.) Civil Engineering (University of Moratuwa - SL),  
C. Eng., FIE (SL), Int. PE (SL), M. Phil (IWRM), University of  
Peradeniya, SL, P.G. Dip. (Water and Wastewater Eng.), AIT,  
Bankgkok,

### **Eng. D. U. Sumanasekara (North Western)**

B.Sc. Eng. (Hons) M.Sc. (Netherlands), C.Eng., FIE (SL)

### **Eng. R. H. Ruvinis (Southern)**

(from 01.01.2012 up to 07.10.2012)  
B.Sc. Eng. (Hon.) , MBA, FIE (SL), C.Eng.

### **Eng. D. F. S. De F. Gunawardene (North)**

B.Sc. Eng., C. Eng., MIE (SL), M. Eng. IHE (Delft)

### **Eng. S. G. J. Rajkumar (Sabaragamuwa)**

C.Eng., FIE (SL), M.Sc. in Sanitary Engineering,  
M.Sc. in Environmental Engineering and Management

## 12. Deputy General Managers working as Project Directors

### **Eng. (Mrs.) C. J. D. Perera (PD - Kalu Ganga Water Supply Project - Phase I - Stage II)**

B.Sc. Eng. (Hons), MIE (SL), C. Eng.,  
Dip. Sanitary Eng. (Netherlands), Dip. Environmental Eng. (SL)

### **Eng. J. R. B. Nadurana (PD - ADB 5<sup>th</sup> Project)**

B.Sc. Eng. (Hons), P.G. Dip. in Environmental  
Science & Technology (Delft.)  
MIE (SL), C.Eng.

### **Eng. Ranjith Kulanatha**

B.Sc. Eng. MIE (SL), C.Eng.

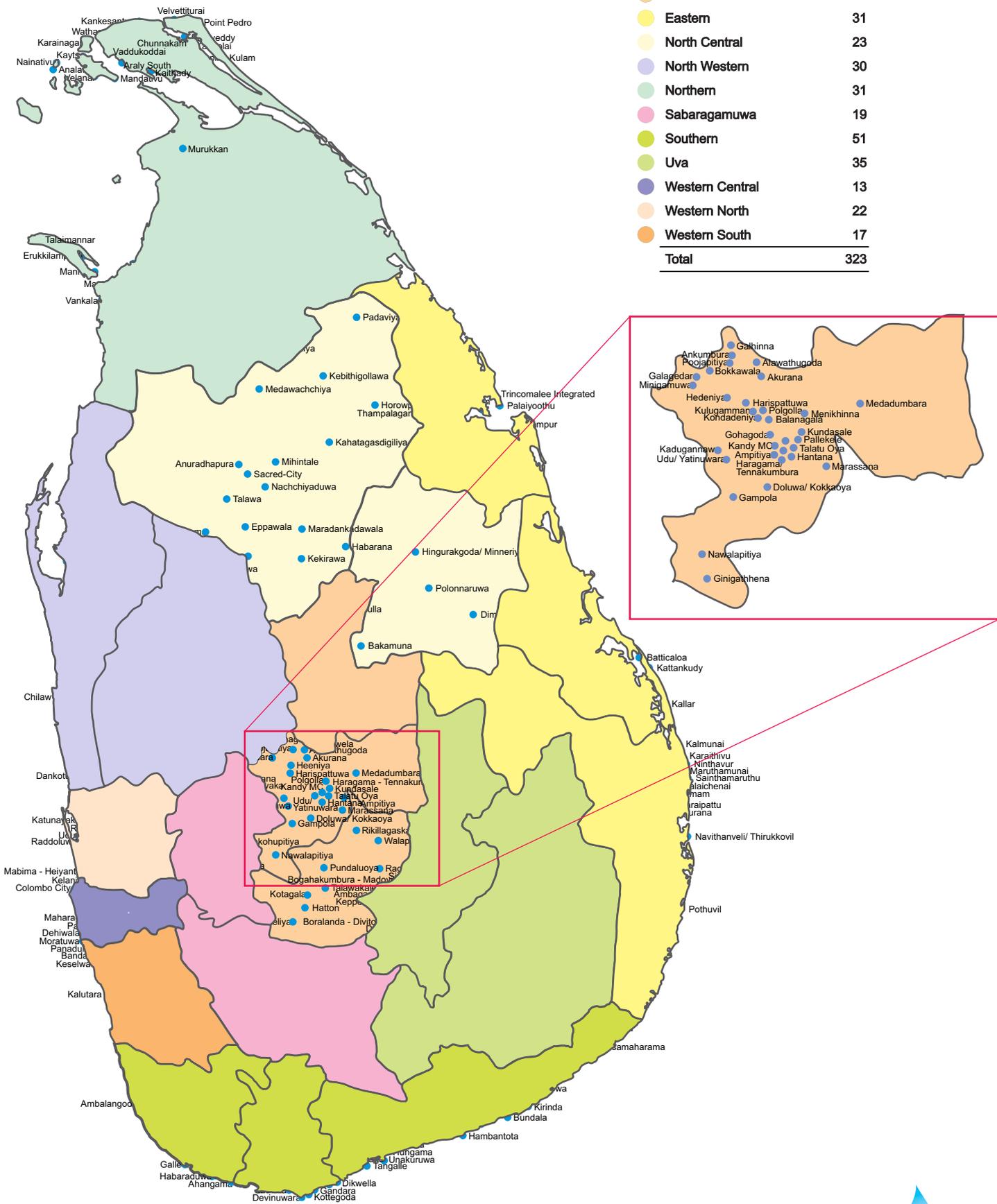
### **Eng. B. S. Wijemanna**

B.Sc. Eng. M.Eng (Hydrology and Water Resources) IHE (Delft),  
Dip. in Construction Management  
MIE (SL), C.Eng.

### **Eng. K. J. V. A. Perera**

# Existing Water Supply Schemes

Province/RSC	Number of WSS
Central	51
Eastern	31
North Central	23
North Western	30
Northern	31
Sabaragamuwa	19
Southern	51
Uva	35
Western Central	13
Western North	22
Western South	17
<b>Total</b>	<b>323</b>



## Corporate Planning

“The NWSDB continued working towards the achievement of the goals and objectives set out by the new Corporate Plan. Special emphasis was given during the year 2012 for formulating policy matters, setting procedures and planning items relating to the next four years of the plan.”

### Implementation status of the Corporate Plan 2012 - 2016

The year under review was the first year of our new Corporate Plan. The Corporate Plan 2012-2016 was prepared by a special committee for the 5 year period appointed by the General Manager, comprising of 15 senior managers of the NWSDB.

The NWSDB continued working towards the achievement of the goals and objectives set out by the new Corporate Plan. Special emphasis was given during the year 2012 for formulating policy matters, setting procedures and planning items relating to the next four years of the plan.

A new Goal has been included to promote information and communication technology solutions as a catalyst for business growth. This is to enhance the capacity of IT applications within the NWSDB. Services hitherto outsourced are to be carried out in-house and the necessary strategies and activities have been worked out.

It was considered important to have timely reviews for the successful achievement of the goals, objectives and the targets set.

Quarterly progress on the Corporate Action Plans are presented to the Members of the Board by every manager responsible for a particular goal (there are seven such goals, overseen by a designated Accountable Manager for every goal). Accordingly, first, second, third and fourth quarter progress reports on the Corporate Action Plans were presented to the Members of the Board at Board meetings held in 2012 and early 2013.

Activities towards the goal on water supply and sanitation coverage were being carried out throughout the country. Special efforts taken to reduce NRW and power cost during 2012 are noteworthy. Services to customers require improvement.

Promoting Institutional Development is a Corporate Goal. A special committee headed by the Addl. GM (N/C) actively pursued activities to achieve this important goal. With a view of promoting employee satisfaction and generating better employee performance, 5 committee meetings were held. A presentation on “Change of Attitude by Improving Knowledge on Fundamentals” was made to the senior staff of the NWSDB in June 2012 to pursue this matter and it was well received.

Both the Internal Audit Division and the Government Audit Branch worked on the accountability and transparency issues. The CKD affected, the marginalized and the rural community without safe water supply facilities were given importance within the available means.



Best Community Based Organisation Award being presented on World Water Day 2012

## Progress Towards Stated Goals

Goal	Key Objectives	Target end 2012	Achievement end 2012
1. Increase the water supply and sanitation coverage	1.1 Total Pipe-borne water supply coverage	43.6%	43.5%
	1.2 Piped sewerage coverage	2.4%	2.3%
	1.3 Access to safe drinking water supply coverage	84.0%	84.1%*
	1.4 Total sanitation coverage	86.5	85.7%*
2. Improve business efficiency	2.1 NRW (island-wide)	29.50%	29.89%
	2.2 Total staff for 1,000 connections	5.84	6.09%
	2.3 Expenditure on power to total recurrent cost	22.47%	22.05%
	2.4 Maintenance expenses to total recurrent cost	4.22%	4.69%
	2.5 Establishment expenses to total recurrent cost	9.90%	10.66%
3. Improve services to customers and promptly attend to public complaints	3.1 Public awareness programmes to be carried out (schools/other)	25 Nos.	46 Nos.
4. Promote information and communication technology solutions as a catalyst for business growth	4.1 Estimated bills to total number of bills	5.0%	2.0%
	4.2 Collection efficiency	100.0%	98.0%
	4.3 Accounts receivable from -		
	(a) domestic and commercial institutions	50 days	55 days
	(b) Government institutions	60 days	44 days
5. Ensure greater accountability and transparency	<p>Initiatives were taken to develop a whole range of management and business tools on human resource development, management information system and business plan.<sup>#</sup></p> <ul style="list-style-type: none"> <li>• Delegation of financial authority</li> <li>• Training on budgetary control &amp; financial regulations</li> <li>• Audits on commercial operations</li> <li>• Audits on stores and supplies</li> <li>• Audits on cash/ cheque payments</li> <li>• Audits on construction contracts</li> <li>• Valuation of assets</li> <li>• Improved Management Information and Coordination</li> </ul>		
6. Promote Human Resource Development	6.1 In-house training (no. of participants)	2300	6279
	6.2 In-country external training (no. of persons)	240	215
	6.3 Overseas training (no. of persons)	75	110
7. Facilitate safe drinking water supply and sanitation to rural and underserved communities	7.1 RWS Schemes maintained by CBOs LAs and others under the NWSDB backup support	10.0%	9.57%

\* Estimated as 83.1% for water supply and 96.7% for sanitation from a sample survey carried out during 2006-2007 by the Department of Census and Statistics excluding Jaffna, Kilinochchi, Mullaitivu, Mannar and Vavuniya districts.

# Development of 5 year Business Plan for the NWSDB with the assistance from the Merchant Bank of Sri Lanka is available.

## ▶ Key Performance

*“Significant reduction in NRW in Colombo City during 2012 figured out as 4% (including estimated 0.8% reduction of free water), with the tremendous efforts taken by the appropriate staff responsible, achieving the target fully”*

138,362 service connections were provided during the year, bringing the population that was covered with piped drinking water supplies by the NWSDB to 34.0 %, indicating that the achievement for total pipe-borne water supply almost close to the target.

Service levels to existing consumers were improved by commissioning several major and minor water supply projects in different parts of the country. Projects being implemented in water supply and sewerage facilities in Tsunami affected coastal areas and war affected Northern and Eastern areas in rehabilitated and reconstructed thereby improving the livelihood of those affected. Project components are not limited to restoration of damaged utilities but include water supply and sanitation facilities to resettlement areas, improvement of service levels in affected areas and extensions to new development areas in the vicinity.

Staff recruitments were kept under control, while the ratio of staff per thousand service connections was reduced to 6.09. The NWSDB continued institutional development activities during 2012 too same as in previous years (page 38 onwards for details).

The last tariff revision for water was in October 2012 after three years and seven months. Therefore, the finances of the NWSDB had to be carefully managed since increases in operational expenses, debt service commitments, no tariff increase for three years and seven months prior to the last. The debt service commitment could not be fully met with respect to the years 2009 and 2010. But the total outstanding in 2011 has been fully settled to the General Treasury.

Non-revenue water (NRW) includes authorized but unbilled water supply to tenement gardens and public sanitary facilities in Colombo. The NWSDB is compelled to continue this service, earlier provided by the CMC. If authorized but unbilled water supplies in Colombo City (estimated at 8% of the water supplied) are excluded, unaccounted for water in Colombo City would be 41 %. NRW in the Western Province and nationwide would be 32.66 % and 29.89 % respectively. In general, NRW was being maintained in a level little lower than as in 2011, Island wide.

Significant reduction in NRW in Colombo City during 2012 figured out as 4 % (including estimated 0.8 % reduction of free water), with the tremendous efforts taken by the appropriate staff responsible, achieving the target fully.

### General

There are 323 major, medium and small water supply schemes in operation under the NWSDB's purview. Out of these, 31 schemes cover major cities and 292 schemes cover townships and villages.

8 % of the population is covered with hand-pump tube wells. Community management is promoted with regard to rural water supply schemes through community-based organizations. Proper rain water harvesting is considered an acceptable option as a drinking water source.

	2011	2012	Variation (%)
<b>KEY STATISTICS: WATER SUPPLY</b>			
No. of Water Supply Systems	323	<b>323</b>	0
Piped Water Production (million cu.m.)	490	<b>526</b>	7.3
Piped Water Consumption (million cu.m.)	342	<b>368</b>	7.6
Domestic Connections (Nos.)			
(a) Western Province	630,157	<b>677,427</b>	7.5
(b) Other Provinces	706,679	<b>789,189</b>	11.7
<b>Total Domestic Connections</b>	<b>1,336,836</b>	<b>1,466,616</b>	9.7
Public Stand Posts (Nos.)			
(a) Western Province	3,940	<b>2,345</b>	(40.5)
(b) Other Provinces	2,436	<b>2,403</b>	(1.4)
<b>Total Public Stand Posts</b>	<b>6,376</b>	<b>4,748</b>	(25.5)
Non-Domestic Connections (Nos.)			
(a) Western Province	57,401	<b>58,595</b>	2.1
(b) Other Provinces	55,064	<b>57,704</b>	4.8
<b>Total Non-Domestic Connections</b>	<b>112,465</b>	<b>121,047</b>	7.6
<b>Total No. of Service Connections</b>	<b>1,449,301</b>	<b>1,587,663</b>	9.5
Average Household Monthly Consumption (cu.m. per house connection)			
(a) Western Province	17.22	<b>17.46</b>	1.4
(b) Other Provinces	13.16	<b>13.13</b>	(0.2)
Average Household Bill Value per Month (Rs.)			
(a) Western Province	573.21	<b>622.76</b>	8.6
(b) Other Provinces	319.03	<b>346.06</b>	8.5
Total Revenue (Rs. million)	13,343	<b>15,088</b>	13.1
Total Recurrent Expenditure (Rs. million)	11,033	<b>13,661</b>	23.8
Non-Revenue Water (%)			
(a) Western Province	34.03	<b>32.66</b>	(4.0)
(b) Other Provinces	25.02	<b>26.06</b>	(4.2)
(c) Island-wide	30.36	<b>29.89</b>	(1.5)
O&M Staff/ 1,000 Connections	5.25	<b>5.10</b>	(2.9)
Total Staff/ 1,000 Connections	6.35	<b>6.09</b>	(4.1)
Average Recurrent Cost of Water Production (Rs./cu.m.)	22.50	<b>25.99</b>	15.5
Average Total Cost/ Unit Sold (Rs./cu.m.)	40.78	<b>44.07</b>	8.1
Average Unit Revenue (Billing/ Consumption) (Rs./cu.m.)	39.07	<b>40.95</b>	4.8
Collection Efficiency	0.99	<b>0.98</b>	-(1.0)
Deep Wells (Nos.)			
(a) Drilled	372	<b>390</b>	4.8
(b) Successful	326	<b>339</b>	4.0
Development Expenditure (Rs. million)	29,337	<b>317,40.02</b>	8.2
<b>KEY STATISTICS: SEWERAGE</b>			
Domestic Connections			
Western Province	8,518	<b>9,089</b>	6.7
Other Provinces	565	<b>886</b>	56.8
Non-Domestic Connections			
Western Province	418	<b>552</b>	31.6
Other Provinces	133	<b>147</b>	10.5
Housing Scheme Connections (Bulk)			
Western Province	3,603	<b>3,603</b>	49.9
Other Provinces			
<b>Total Sewerage Connections</b>	<b>13,237</b>	<b>14,277</b>	7.9

# Summary of Operations

“The Western Province water supply system claims the major share of production through four centres at Ambatale, Labugama, Kalatuwawa and Kandana in Kalutara amounting to 58% of the total water produced by the NWSDB”

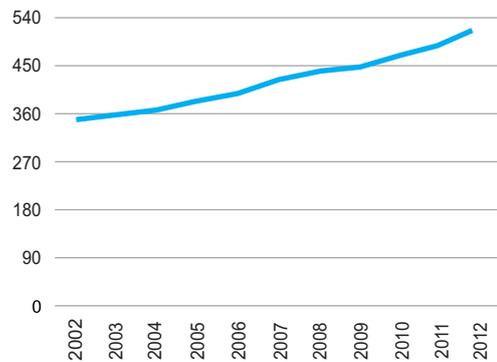
## WATER SUPPLY

### Drinking Water Production

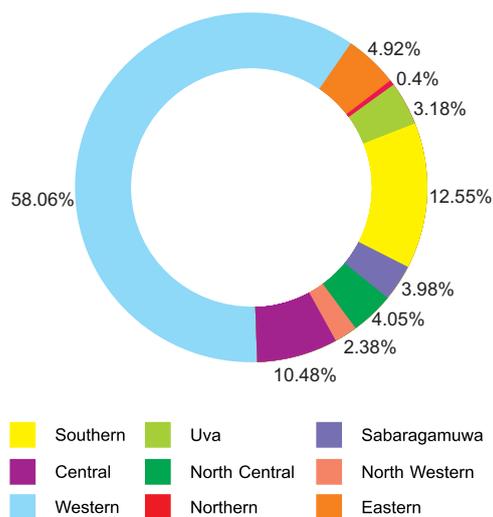
The total quantity of drinking water produced in 2012 was 526 million cu.m. The trend during the last 10 years is given in the chart. The Western Province water supply system claims the major share of production through four centres at Ambatale, Labugama, Kalatuwawa and Kandana in Kalutara amounting to 58% of the total water produced by the NWSDB. The fourth production centre situated at Kalutara was introduced in the latter part of 2006.

### Water Production

million cu.m.



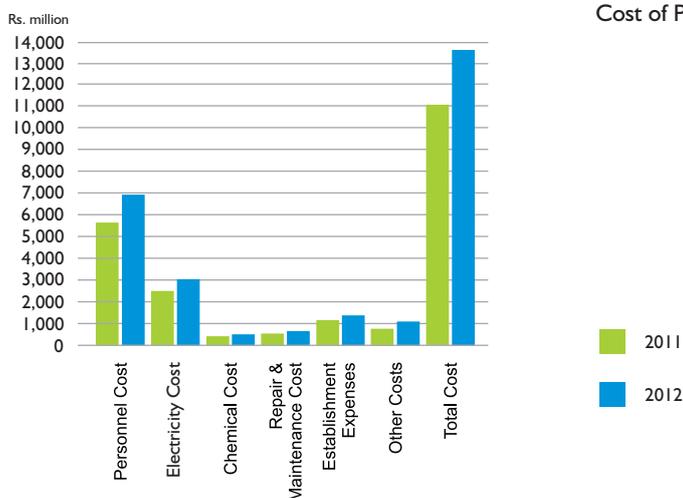
### Water Production by Provinces



### Cost of Production:

Breakdown of the cost of production (Rs. million) in comparison with 2011 is shown below:

#### Cost of Production



Cost of Production Rs. per m<sup>3</sup>

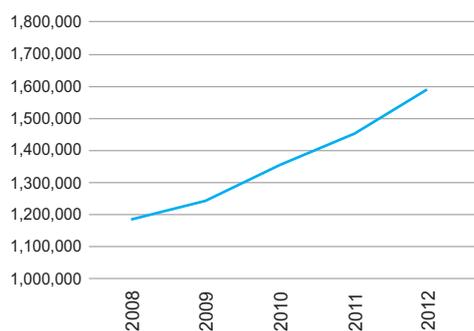
2011	2012
40.78	44.07

$$\begin{aligned} \text{Cost of Production} &= \text{Total Cost} / \text{Units Sold} \\ &= (\text{Total Recurrent Cost} + \text{Interest on commissioned projects} + \text{Depreciation}) / (\text{Quantity sold}) \end{aligned}$$

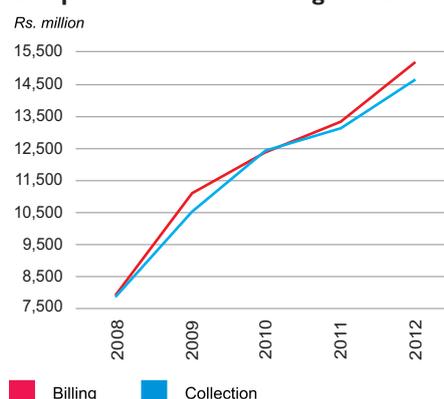
### Comparison of Service Connections

Province/ RSC	No. of Connections Province/RSC-wise			NWSDB Region	No. of Connections Region-wise		
	As at end December 2011	As at end December 2012	Change %		As at end December 2011	As at end December 2012	Change %
Western - Central	363,664	<b>378,237</b>	4.0	Priority	2,723	<b>2,771</b>	(1.8)
				Colombo City	129,504	<b>132,167</b>	2.1
				TEC North	133,700	<b>139,115</b>	4.1
				TEC South	97,737	<b>104,184</b>	6.6
Western - North	152,628	<b>177,981</b>	16.6	TNC	107,422	<b>128,039</b>	19.2
				Gampaha	45,206	<b>49,942</b>	10.5
Western - South	171,266	<b>182,149</b>	6.4	TSC	91,269	<b>94,824</b>	3.9
				Kalutara	45,520	<b>48,366</b>	6.3
				Panadura	34,477	<b>38,959</b>	13.0
Central	179,688	<b>198,512</b>	10.5	Kandy North	67,108	<b>73,739</b>	9.9
				Kandy South	63,077	<b>71,144</b>	12.8
				Kandy East	49,503	<b>53,629</b>	8.3
North Western	46,686	<b>53,930</b>	15.5	Kurunegala	46,686	<b>53,930</b>	15.5
North Central	67,294	<b>80,314</b>	19.3	Anuradhapura	67,294	<b>80,314</b>	19.3
Sabaragamuwa	73,258	<b>80,528</b>	9.9	Ratnapura	33,287	<b>35,397</b>	6.3
				Kegalle	39,971	<b>45,131</b>	12.9
Southern	222,472	<b>239,719</b>	7.8	Hambantota	74,883	<b>79,632</b>	6.3
				Matara	70,689	<b>75,241</b>	6.4
				Galle	76,900	<b>84,846</b>	10.3
Uva	59,192	<b>63,248</b>	6.9	Bandarawela	36,162	<b>37,375</b>	3.4
				Monaragala	23,030	<b>25,873</b>	12.3
Northern	7,087	<b>7,922</b>	11.8	Jaffna	1,355	<b>1,692</b>	24.9
				Mannar	5,732	<b>4,603</b>	(19.7)
Eastern	106,066	<b>125,123</b>	18.0	Vavunia	-	<b>1,627</b>	
				Ampara	21,116	<b>23,734</b>	12.4
				Trincomalee	33,662	<b>36,135</b>	7.3
				Akkaraipattu	45,394	<b>50,956</b>	12.3
				Batticaloa	5,894	<b>14,298</b>	142.6
<b>Total</b>	<b>1,449,301</b>	<b>1,587,663</b>	<b>9.5</b>	<b>Total</b>	<b>1,449,301</b>	<b>1,587,663</b>	<b>9.5</b>

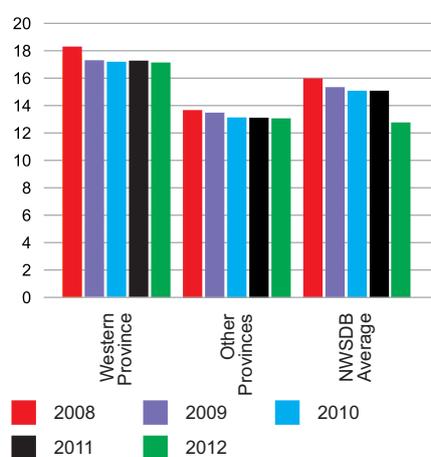
## Growth of Connections



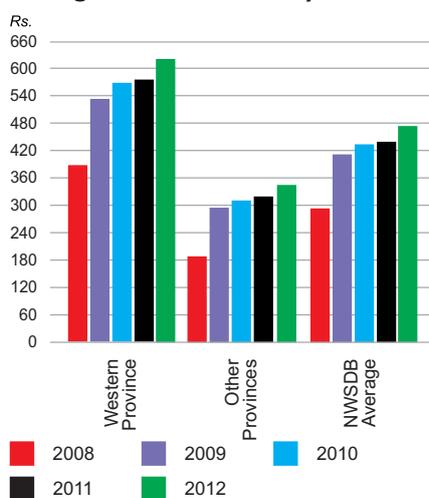
## Comparison of Annual Billing and Collection



## Average Household Monthly Consumption cu.m. per Connection



## Average Household Monthly Bill



## Billing Statistics

Description	2011	2012
Billing Target (Rs. million)	13,429	<b>14,216</b>
Actual Billing (Rs. million)	13,343	<b>15,088</b>
Collection Target (Rs. million)	13,464	14,074
Actual Collection (Rs. million)	13,209	14,716

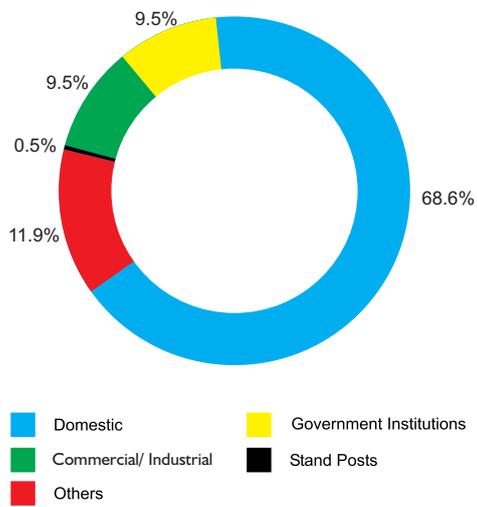
## Quantity of Water Sold and Revenue by Consumer Categories (2012)

Consumer Category	Quantity sold		Revenue	
	cu.m '000s	%	Rs. million	%
Direct billing #	256,372	68.6	8,070	53.5
Schools	4,815	1.3	109	0.7
Tenement gardens	10,081	2.7	280	1.9
Public stand-post supply	2,011	0.5	27	0.2
Government institutions, NWSDB premises	35,409	9.5	2,339	15.5
Commercial and industrial	35,619	9.5	3,135	20.8
Tourist hotels	2,315	0.6	189	1.3
Shipping	148	0.0	70	0.5
Board of Investment	7,418	2.0	466	3.1
Religious premises	4,490	1.2	103	0.7
<b>Subtotal</b>	<b>358,677</b>	<b>96.0</b>	<b>14,788</b>	<b>98.0</b>
Bulk billing	10,385	2.8	185	1.2
Others*	4,702	1.3	115	0.8
<b>Grand Total</b>	<b>373,764</b>	<b>100.0</b>	<b>15,088</b>	<b>100.0</b>

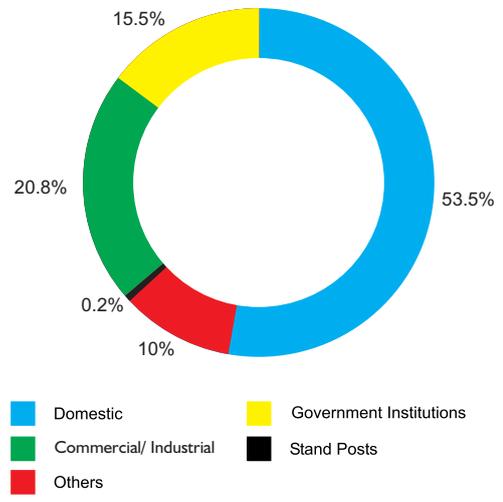
\* All other billing categories have been grouped under 'Others'. Setting-off rebates have also been included in this category.

# Domestic, NWSDB Quarters, Government Quarters, Condominium, Domestic Non-Vat, Domestic Samurdi & Tenement Samurdi

**Percentage Quantity of Water Used by Consumer Categories**



**Percentage Revenue by Consumer Categories**

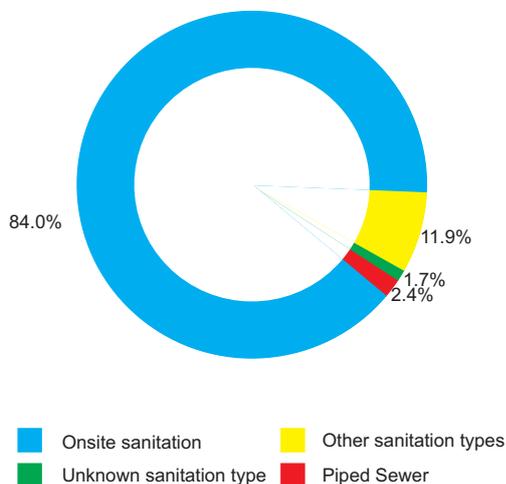


## SEWERAGE

The Greater Colombo Sewerage Section is responsible for the operation and maintenance of the sewerage systems of Dehiwala-Mt.Lavinia Municipal Council area, Kolonnawa Urban Council area and sewerage pump houses and pumping mains of some NHDA housing schemes and several government institutions in the Greater Colombo area. There are about 11,173 sewer connections maintained by the NWSDB.

- (a) Housing Schemes
  1. Soysapura Housing Scheme
  2. Maligawatta Housing Scheme
  3. Mattegoda Housing Scheme
  4. Jayawadanagama Housing Scheme
  5. Crow Island Housing Scheme
  6. Maddumagewatta Housing Scheme
  7. Stace Road Housing Scheme
- (b) Government Institutions
  1. Presidential Secretariat
  2. Speaker's Residence
  3. Parliament (water and sewerage)
  4. Sethsiripaya (water and sewerage)
  5. Isurupaya (water and sewerage)
  6. Jayawardanapura Scheme
  7. Maligawatta Scheme

### Graphical Presentation of Present Sanitation Scenario (End of 2012)



### Special events taken place in the Division during the Year 2012

#### (i) Sewerage tariff

Sewerage tariff was first introduced to the users in the sewerage schemes maintained by the NWSDB in 2008. Cabinet Approval obtained for the introduction of revised sewerage tariff as a part of the water bill wherever sewerage services are available on 15.12.2011.

The Sewerage tariff was revised with effect from January 2012. As per the new revision, the domestic sewerage charge includes a fixed charge of Rs.200.00 in addition to the usage charge, which remains unchanged from previous tariff.

Subsequently, a concession of Rs.100.00 from the fixed charge to low consumptive domestic water consumers who have monthly consumption less than 15 units was implemented. However service charges increased to recover the losses from high consumptive consumers also will have to be implemented simultaneously.

#### (ii) Commissioning of New Schemes

Newly constructed Ja Ela Sewerage Scheme is ready to commission in January 2013. Further, Moratuwa/Ratmalana Wastewater Treatment Plant will be commissioned in December 2013.

Colombo Municipal Council (CMC) is responsible for facilitation of sewerage within the CMC area. In accordance with the Cross Boundary Flow Agreement signed between CMC and NWSDB, Maligawatta pump station was handed over to CMC by 31.12.2012



Opening ceremony of Ja-Ela/ Ekala Wastewater system

#### General issues

Fewer connections were obtained from completed sewer projects than expected. Total sewer connections given during the year are as follows.

Domestic sewer connections	836 nos.
Non- domestic sewer connections	151 nos.

#### Institutional Development Activities

Action has been taken to construction of 08 quarters for executive and non executive staff at Soysapura, Ratmalana at the cost of Rs. 58.7 million.

## **Other Productivity Improvement Activities**

### ***(i) Global Partnership for Output Based Aid Project for Increasing Sewerage Services in Greater Colombo Area***

This project is implemented with World Bank grant funding and the total cost would be Rs. 1,197 million. 1475 low income families in Dehiwala/Mt. Lavinia, Kolonnawa, Moratuwa/Ratmalana, JaEla/Ekala will be able to obtain sewerage connections at a subsidized rate Rs. 3,500 under this project.

Contract for Decentralized Wastewater Treatment System (DEWATS) for Diyawarapura Housing Scheme, Moratuwa has been awarded and work scheduled to be commenced by 31.12.2012.

### ***(ii) JICA Funded Sewerage Projects***

JICA has conducted a Dialogue Mission for Project Formulation in Feb., 2012 to identify the prioritized projects under the program for Environmental Improvement.

Focusing of sewerage development in urban areas and also expansion and rehabilitation of existing facilities, JICA has carried out data collection survey on sewerage sector covering 14 Major Cities in June 2012.

Subsequently in August 2012, a Workshop was conducted with the representatives of Provincial Councils, Municipalities and Urban Councils to present the final report. Mission for Project Formulation to confirm and identify prioritized sewerage projects is scheduled to visit in Dec., 2013.

## Summary of Investments

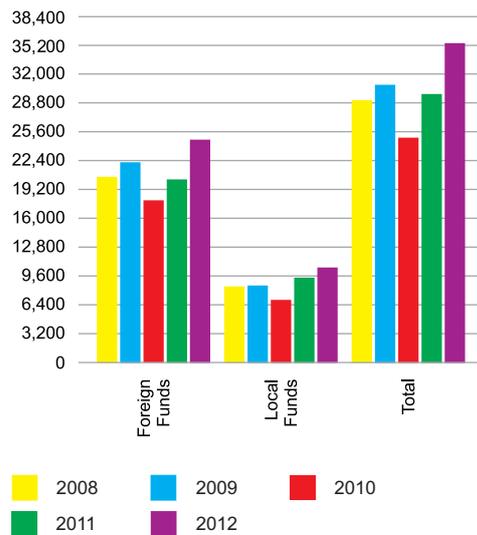
“Capital fund utilization stood at 90% in 2012 where as it was 98% in 2011.”

### Financial Sources

The NWSDB was provided with Rs. 23,109 million as foreign funds for capital works on water supply and sewerage projects. The GOSL contribution was Rs. 7,156 million as counterpart funds. In addition, Rs. 3,253.20 million of local consolidated funds were allocated for small and medium water supply projects. For the reconstruction of tsunami affected water supply systems, a sum of Rs. 1249 million in foreign funds and Rs. 349 million in local counterpart funds were provided. For the purpose of water sector community facilitation a sum of Rs. 161m in foreign funds and Rs. 48.80 m in local counterpart funds were provided.

### Capital Budget Allocations

Rs. million

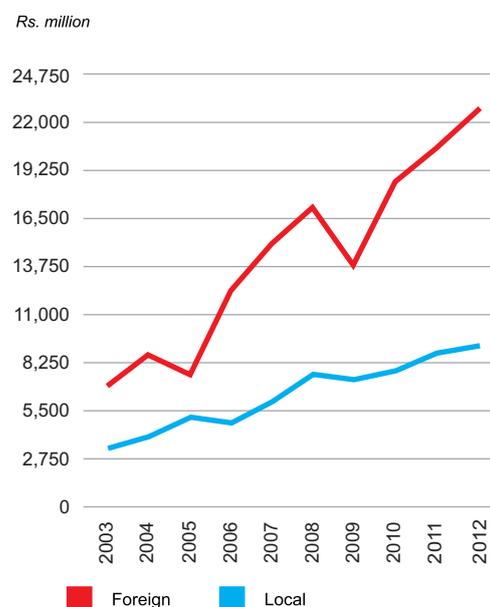


The annual allocation for Water Supply & Sewerage infrastructure had been increasing steadily from Rs.25.6 billion to Rs. 30.9 billion during the period 2006 to 2009. The year 2010 show a significant drop in allocation amounting to Rs. 22.9 billion. This year it has again increased to Rs. 35.3 billion.

### Utilization of Capital Funds

Capital fund utilization stood at 90% in 2012 where as it was 98% in 2011. In this year NWSDB recorded maximum utilization within the budget. A new budget line for Water Sector Community Facilitation was included in 2012 for which Rs. 210 m had been allocated.

### Capital Fund Utilization

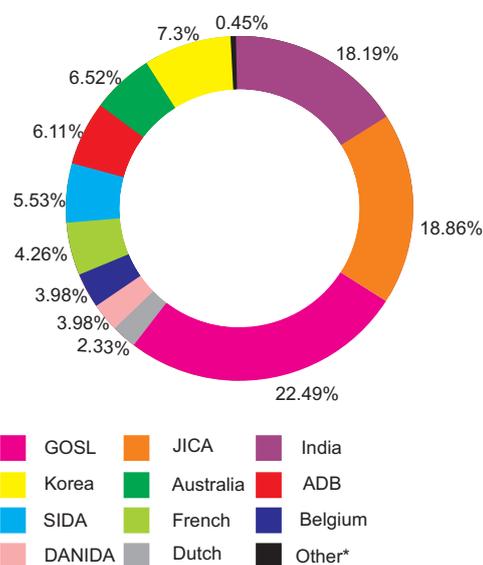


### Comparison of Capital Fund Utilization 2011/2012

Description	2011	2012
Foreign Component (Rs. million)	20,531 101.0%	<b>22,637 92.0%</b>
Foreign Aid Related Domestic Component (Rs. million)	6,927 93.0%	<b>6,571 87.0%</b>
Consolidated Funds for Local Projects (Rs. million)	1,879 92.0%	<b>2,532 78.0%</b>
<b>Total</b>	<b>29,337 98.0%</b>	<b>31,740 90.0%</b>

Some expenditures made and recorded towards the end of the 2011 will be actually paid in 2012. Accordingly excess 1% expenditure in foreign funds will not be an actual exceeding.

### Foreign Aid Contribution by Donors and Related GOSL Funds



\* World Bank, UNICEF

### Rehabilitation and Improvement of Existing Water Supply Schemes

The NWSDB continued to rehabilitate and improve existing water supply schemes using Rs. 890.90 million of its own finances in 2012. These funds were used to improve the quality and quantity of water supplies, maintain NWSDB assets and undertake related support services in operational activities. That means NWSDB spent Rs. 659.7 million for rehabilitation, Rs. 163.2 million for reduction of NRW and Rs. 68 million for pipe line extension, stores improvement, land acquisition & investigation. Priority was given to improvements in schemes where donor assistance or major funding was not available.

### Small-scale Infrastructure Rehabilitation and Upgrading Projects through GOSL Funding

There are locally funded projects planned, designed and expended by the NWSDB. The implementation of the projects are supervised by the respective provincial staff and taken over by the provincial O&M staff when completed.

Under the locally funded Capital Works Programme, 17 new water supply projects and rehabilitation and augmentation of a further 25 water supply schemes were continued in 2012.

78% of the allocation has been utilized during the course of the year.

Almost all the locally funded projects were started 6 to 8 years ago. Owing to small annual budget allocation these projects have been prolonged. As a result, their Total Cost Estimates have increased due to price escalations. Furthermore, local funds have not been released on time to settle the contractors' claims for work done. There was a delay of several months, which caused a negative effect on contractors' cash flow.

### District-wise Capital Works Programme 2012

District	Allocation 2012 Rs. million	No. of Projects with Allocation	Beneficiaries
Ampara	140.0	3	30,000
Anuradhapura	630.0	2	172,000
Badulla	22.9	2	27,500
Colombo	160.0	2	169,600
Galle	37.0	1	1,400
Gampaha	117.0	3	52,000
Kalutara	168.0	1	120,000
Kandy	210.8	2	152,000
Kegalle	100.0	1	30,800
Kurunegala	194.0	3	104,235
Matale	63.0	2	37,000
Matara	50.0	1	10,000
Monaragala	101.6	3	38,000
Nuwara Eliya	18.0	1	15,000
Polonnaruwa	159.0	4	80,555
Jaffna	170.0	2	200,000
Ratnapura	229.0	5	130,400
Trincomalee	497.9	4	394,500
<b>Total</b>	<b>3,068.2</b>	<b>42</b>	<b>1,764,990</b>

### Details of Completed Projects

#### Water Supply Projects

RSC	Project Name
Western	Kelani Right Bank WTP (DANIDA Funded Project) Rehabilitation of Western Central WS Towns North of Colombo WSP - Stage II (JICA Funded Project) Augmentation of Negombo WSS (Dutch Funded project)
North Central	Polonnaruwa WSS (Under ADB 4th project)
North Western	Mahawa (S&M WSP - Wariyapola is ongoing) Karukkapone WS (S&M WSP)
Uva	Buttala WS (S&M WSP)
Eastern	Tampalakamam WS (S&M WSP) Kantale WS (Original scope has been completed - S&M WSP) Dehiattakandiya WS (Original scope has been completed - S&M WSP)
North Central	Mahanelubewa WS Extention (S&M WSP)
Northern	Adampan WSS (Under ENReP funded by Ministry of Economic Development)
Southern	Bonavistakanda WS

#### Sewerage Projects

RSC	Project Name
Western	Wastewater Disposal System for JaEla/ Ekala Area

## Employees

“ NWSDB’s Manpower Development & Training Division continued to provide training opportunities to employees during 2012, as in the past ”

### Staff Strength

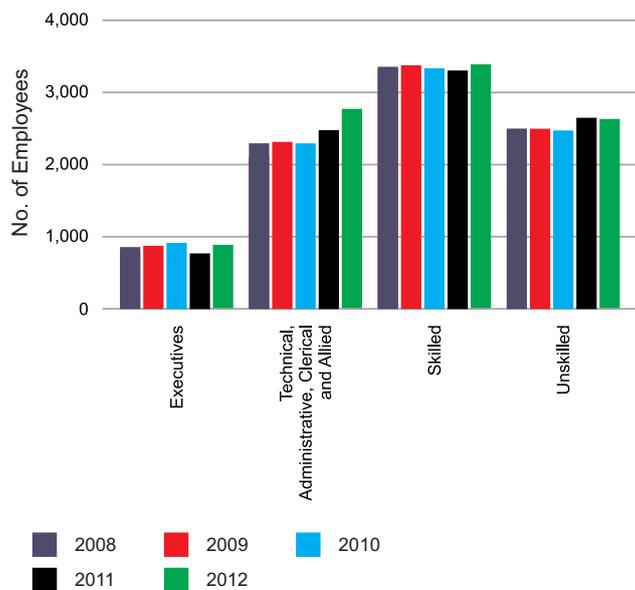
Staff	2011	2012	Variation (%)
(a) Permanent*	8,509	<b>8,927</b>	4.9
(b) Casual	453	<b>51</b>	(88.7)
(c) Contract	135	<b>641</b>	374.8
(d) Plant Technician Apprentice	102	<b>51</b>	(50.0)
<b>Total</b>	<b>9,199</b>	<b>9,670</b>	<b>5.1</b>

\* The permanent staff figure excludes staff recruited for foreign funded projects

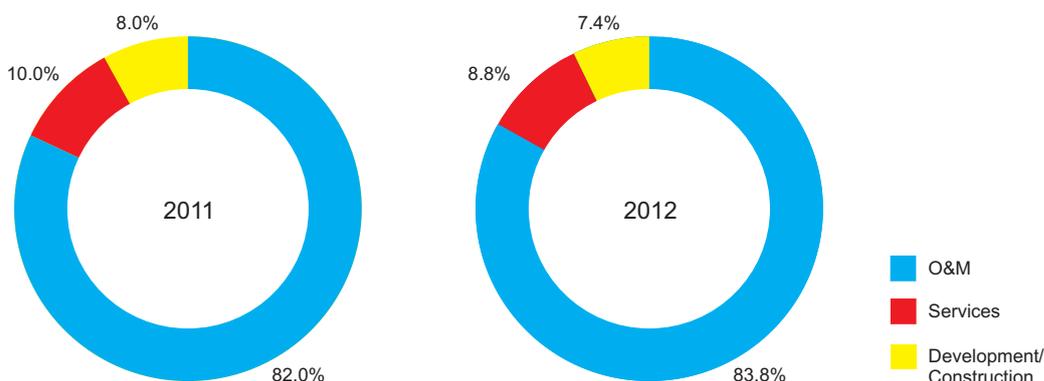
There were 641 contracts, 51 casual and 51 plant technician apprentices in addition to a permanent staff of 8,927 at the end of 2012. Most contract employees were recruited for work on foreign funded projects.

There were 1,175 permanent, 63 casual, 607 contract and 26 plant technician apprentice recruitments of various staff categories during January to December 2012. In the same period there were 757 permanent, 465 casual, 101 contract and 77 plant technician apprentice terminations which includes retirements, resignations, vacated posts and deaths in different categories of staff. This resulted in an increase of 471. The 51 plant technician apprentices are likely to be made permanent later.

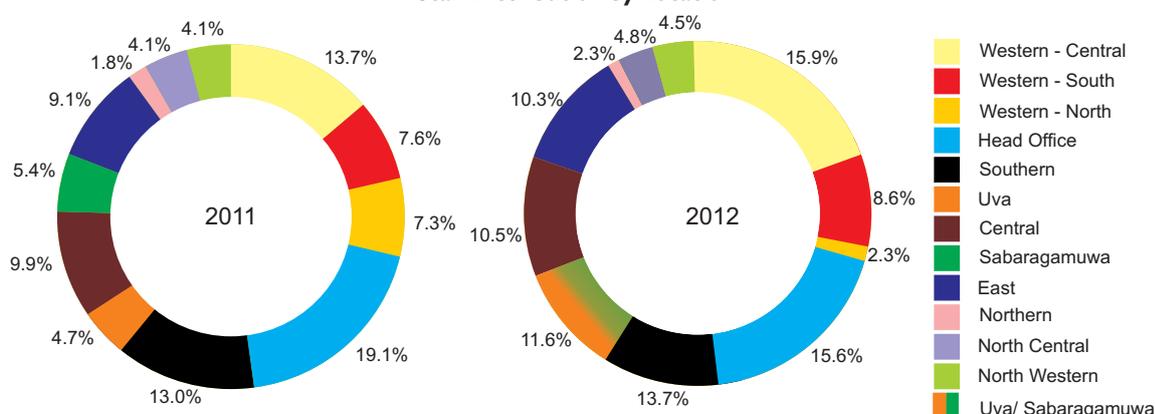
### Distribution by Key Job Function



### Staff Distribution by Key Job Functions



### Staff Distribution by Location



- 25% Salary increase was given to all NWSDB employees w.e.f. 01/01/2012.
- An Annual Bonus of Rs. 23,000.00 inclusive of a productivity incentive was paid.
- Encashment of unused medical leave was continued.
- 909 Concessionary Loans [889 ten months loans and 20 twelve months loans] (approx. Rs. 258,846,846,285.00) have been disbursed among employees.
- 249 Employees were felicitated for their unblemished services at the World Water Day Ceremony held in BMICH in 2012.
- Rs. 9,304,075.00 (approx.) has been spent for medical expenses of employees for in-door and out-door treatments (including family members) & by-pass surgeries.
- 455 casual/ contract employees have been made permanent in their posts in 2012.
- Transport facilities are made available to the staff at a concessionary rate.
- Death donation for permanent employees.
- Local/ foreign training facilities to employees.
- Tea allowance of Rs. 650.00 for employees instead of tea being served in office.
- Loan facilities via Government Banks (Housing loan from Peoples Bank and vehicle loan from Bank of Ceylon).
- Festival Advance of Rs. 5,000.00 is continuously being paid to employees.
- Payment of Rs. 612.25.00 per month to officers in Board Grade VIII to Board Grade V for reimbursement of mobile telephone bills (including CESS and Telecommunication levies).

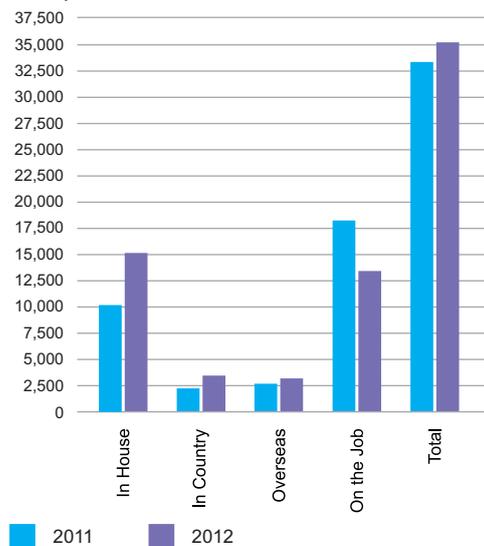
### STAFF REMUNERATION AND BENEFITS

#### Comparison of Staff Remuneration in 2011 and 2012

Description	2011 Rs. million	2012 Rs. million
Salaries	5,744	<b>6,123</b>
Contribution to Employees' Provident Fund	537	<b>651</b>
Contribution to Employees' Trust Fund	134	<b>162</b>
<b>Total</b>	6,415	<b>6,936</b>

## MANPOWER DEVELOPMENT AND TRAINING

Man Days



Based on the training need priorities identified through the senior and the line-managers, employees in various categories were provided with the training through the following approaches.

### **Following training programmes have been introduced during 2012**

English Language Programme, Computer Applications, Written Communication, Interpersonal Communication for Executive Staff, New Sri Lanka Accounting Standards for Accountants, Contract Payment Procedures, Time management, Training Programme for Treatment Plant Technicians, Water Safety plans, PE Pipe Laying and Service Connections, Atomic Spectroscopy for trace metal analysis in water, Training on PLC Systems, Employee and site safety, Laboratory safety and security for Lab assistants, Vehicle Services and record keeping for Drivers.

### **Formal In-house Training Programmes, Seminars and Workshops**

The MD&T Division has conducted 159 in-house training programmes, related to the following areas during 2012, where 1,596 Executive Staff 1,509 Supervisors, 1,243 Clerical and Allied grades, 1,572 Operatives were included. Services of external experts were obtained in the areas of Management and Finance.

Water Quality Monitoring, Water and Waste Water Treatment, Preparation of Contract Documents and Contract Payments, Safety at work places, Leak Detection and NRW reduction, Administrative Procedures, Financial Procedures, Material Management, Commercial Activities, Customer Care, Clerical Skills, Familiarization Programmes for New Recruits, Road Safety, Traffic Law and Signs, Handling Machinery and Equipment in W.S.S, Hydrology and Ground Water Improvement, Effective Communication Skills and Auditing were the topics covered under training.

### **Training at other Training Institutions in the country**

215 employees received training externally through local training Institutions. This includes Master and Postgraduate programme conducted by local universities and diploma and certificate courses conducted by various recognized institution including National Institute of Business Management, Institution of personnel Management, Sri Lanka Institute of Development which were nominated for several short courses in areas Human Resources Supplies Chain Management, Construction Management M&E; fields, Machinery Operations were conducted too.

### **Officers have been nominated for the following new training programmes during 2012**

Public utility pricing policies, issues and Best practices-AFS, Modern Electronic Components-Arthur C.Clerk Institute, Air Conditioning System of Automobiles-IESL, Water Asset Management-University of Peradeniya, Change Management –SLFI, Maximizing National Productivities for Sustainable –OPAS, Configuration and Trouble Shooting Internet Server-NET Assit International, Result Base Management for Sustainable Development-SLFI, Dam Safety ad water Resources plan Dam Safety Project, Utility queries Using MS SQL server 2005-NET Assit International

### **Overseas Training/Official Visits**

I. Short term fellowships and visits - Overseas Training was provided for 17 employees of NWSDB with the financial assistance from ADB, JICA and bi-lateral short term fellowship from Thailand, Korea, Singapore, In addition MD&TD facilitated official visits for 89 officers in respect of pre- shipment inspection visit, Factory Inspections, Contract negotiation etc.

II. Long term fellowships - Fellowships have been received by the NWSDB Engineers.

- M.Sc. Programme in Municipal Water Infrastructure specialization in water Supply and Sanitary Engineering funded by JJ-GSP world Bank
- M.Sc.in Water Services Management Netherlands funded by NUFFIC
- M.Sc.in Hydraulic Engineering and River Base Development funded by NUFFIC

### **On-the Job Training**

On the job training was provided to 148 Apprentices (Undergraduates, Special Apprentices, NDT/ HNDE students, Craft Apprentices, Technical College Student, Institute of Chartered Accountant Students, A.A.T. Vocational Training Authority, NAITA Trainees.

# SUSTAINABILITY REPORT

With one-third of the world's population living in countries which are experiencing water shortages, it is unforgivable that so little is done to preserve and ensure proper management of this invaluable and life giving resource.

*Drawn by:*  
D. M. B. Dhananjane Bandara  
of Holy Family Convent,  
Kurunegala for the  
World Water Day Poster Competition 2012.





## Customer Convenience

*“On the spot cost estimation for new connections at selected offices, provision of new connections within a maximum of seven working days after the payment of the charges, deployment of leak repair teams, capturing customer grievances through the Web, are some measures being taken to provide a customer friendly service”*

The NWSDB is making several efforts to make matters easy for its customers, because efficient customer service is one of the most important objective of the organization.

### Call Centre

The NWSDB all Island call center, 1939 is operated for 24 hours, toll free and tri-lingual which is for seeking information of the services or any complaints on the breakdowns, interruptions and water leaks. The Call Center was in operation and enhancements were made to the system.

During the year, 39,376 customer complaints (mainly leak repairs) have been handled with this system and it proves that the call center plays a huge role in informing and how people have embraced the service. At present, the NWSDB has reviewed the Customer Grievance System (CGS) module and implemented the Interactive. The NWSDB has its own Cashier Points at various offices. Furthermore, it has registered collection agencies, Agency Post Offices and LECO Voice Response (IVR) solution for the call center.

SMS technology was incorporated to call center facility. When the complaint is lodged at the Call Center regarding pipe leaks or service breakdowns, an SMS will be sent to the relevant Area Engineer/ District Engineer. This SMS service has got a significant popularity during the year and furthermore, according to the NWSDB officers, this SMS service has been accepted as the easiest service by the customers who are related to the young generation.

### Customer Charter

The NWSDB is committed to ensure an efficient and reliable service to the beneficiaries by improving the present condition of WSSs in accordance with the guidelines mentioned in the Customer charter. On the spot cost estimation for new connections at selected offices, provision of new connections within a maximum of seven working days, after the payment of the charges, deployment of leak repair teams, capturing customer grievances through the Web are some measures being taken to provide a customer friendly service.

### Bill Payment Facilities

All State Banks accept water bill payments. In addition, Sampath Bank, Nations Trust Bank, HSBC, City Bank, Commercial Bank, National Development Bank, Union Bank, Standard Chartered Bank, Seylan Bank, HNB, DFCC Vardana Bank and Pan Asia Bank accept water bill payment. The Standard Chartered Bank and Union Bank have telephone banking services for their customers. The Sampath Bank has its own Sampath Net to accept water bill payments.

Agents also collect water bill payments. Cargills Food City, Abans Showrooms and Singer showrooms have been appointed to collect water bill payments. It is possible for customers to register with NWSDB web site & pay their water bills online. Ensuring the efficient service through new technology, NWSDB is incorporated with

Information & Communication Technology Agency (ICTA) to accept water bill payments.



Customer can pay their water bills at any Singer Sri Lanka branch

### Short Message Service (SMS) Technology to pay water bills

This is the latest method launched in November 2010. A customer could pay the water bill using the mobile phone. Initially, the mobile phone number and the NWSDB customer account number will be registered with the bank account of the customer. Thereafter, the customer registers with the NWSDB using the mobile phone number. ORIK Corporation was contracted for this service. Such mobile invoicing services will enable customers to enjoy hassle free services, without filling forms, standing in queues, cash, etc. These innovative methods are embarked with a view to enhance customer convenience.

The SMS technology to pay water bill has not implemented yet since a delay has been occurred in the process of integration with the bank. At the beginning of the project, it had designed to use Java script programming language to run the specific application related to the billing services. Later on the designers had come across some difficulties and decided to use another software to which the Bank of Ceylon did not agree, and they need to prepare a new act for it. Currently both parties are trying to solve the issue and intend to implement the service as soon as possible.

### Public Awareness Programmes

Public awareness programmes were conducted by the Public Relation Unit of the NWSDB, mainly focusing on saving of purified water and prevention of water bodies from pollution by human activities, while giving the main concentration to school children.



Awareness Programme conducted at the Cinnamon Grand Hotel

24 school programmes covering Kalutara, Monaragala, Ratnapura and Colombo districts as well as other programmes at Karapitiya, Ragama, Kegalle, Welisara and Borella Lady Ridgeway hospitals and one programme at Mirihana police station were successfully conducted. Furthermore, through out the year, awareness programmes were conducted for training teachers all over the island. In addition to these conventional awareness programmes, PR unit has initiated publishing paper advertisements to aware public to communicated on illegal water connections for prompt action.

## ➤ Rural Water and Sanitation

The Secondary Towns and Rural Community Based Water Supply and Sanitation Project is a large scale community participatory rural water supply project being implemented at present (more details in page 46).

RWS section has involved in preparing the following Rural Water Supply & Sanitation Projects.

1. Rural Water Supply and Sanitation Pilot Project for North & East Housing Reconstruction Project (Grant from AUSAID through World Bank). This project intends to provide drinking water supply facilities for 3,000 households and sanitation facilities for 900 households in Mannar and Trincomalee districts. 389 and 264 RWS units were established in Trincomalee and Mannar districts respectively to implement the project.
2. Grant agreement has been signed for Japanese Funds for Poverty Reduction, improving Community-Based Rural Water Supply and Sanitation in Post-Conflict Areas of Jaffna and Kilinochchi districts. This project is being implemented in ground level and consultancy staff have been appointed to initiate planning and designing activities with participatory approach with beneficiary communities.

The activities that have been planned for 1st quarter 2013 are Rehabilitation of 10 no. WSS in Badulla district and 20 no. tube wells strengthening laboratory facilities in Bandarawela and training programmes for CBO staff.



*Ways of preserving water in Rural Areas*

### **UNICEF Funded Water Sanitation and Hygiene (WASH) Programme (UNICEF Lankan Funds)**

The Water Sanitation and Hygiene Programme, funded by UNICEF are for the implementation of; emergency relief activities, awareness on improvement of water quality, activities under the ground water investigation and support to strengthen the backup support for district level rural water supply units. Activities carried out in Northern, Eastern, Uva and Central Province.

Rs 66 million have been received from UNICEF during the year 2012 and Rs. 37.0 million of works completed and balance works were scheduled to be completed within first two quarters of the year 2013.

### **Under the above program, following activities were carried out.**

- Collection of data of 3250 number of shallow wells in Kaitz and Karainager DS divisions in Jaffna district and testing of water samples in wells.
- Construction of 24 number of hand pump fitted tube wells and rehabilitation of 20 dug wells in Mullaitivu District
- Rehabilitation of 20 number of hand pump fitted tube wells and drilling & fixing of hand pumps for 03 new tube wells in Ampara district.
- Implementation of water quality surveillance program in Pussallawa area in Kandy District
- Distribution extension for Water supply connections to 563 families in Muthur area in Trincomalee District
- Water supply connections to 1100 families in Vaunathive area in Batticaloa District

Sanitation program has been commenced and already constructed 400 number of latrine units for beneficiary households.

Nine water supply contracts were awarded in November & December 2012 and construction of water supply works already stated in ground level and Rs. 67 millions expenditure recorded in the year 2012.

### **SACOSAN IV Conference**

One of the main objectives of the SACOSAN - IV is to achieve total sanitation by providing toilets. With reference to this theme, it was proposed to improve the sanitation facilities of the neediest 300 households and five schools from selected PS area in Trincomalee, Batticaloa, Hambantota and Puttalam Districts where the sanitation facilities are not up to the standards to achieve the required sanitation needs.

In view of achieving the above goal, GOSL has allocated Rs. 9.0 million to the Ministry of Water Supply & Drainage.

The activities under SACOSAN IV are implementation of the village level sanitation projects, school WASH projects, local level seminars/ workshops, preparation of final report incorporating recommendations to the government sector performs as well as to the SACOSAN IV.

## ▶ Ground Water

During the year 2012 the works related to Ground Water activities were Hydrogeological and Geophysical investigations, Drilling of Tube wells, Flushing and development of existing tube wells, repairs and rehabilitation of hand pump tube wells, installation of new hand pumps and iron removal plants, pumping tests, flow measurements of surface water, Auguring and Jetting, dug well clearing, bed rock profiling and light drilling.

The progress was completion of number of above activities, 791 hydrological and geophysical investigations, 390 tube wells (deep and shallow), 105 pumping tests, 553 hand pump repairs and rehabilitation,

109 new hand pump installations, 11 new Iron removal plant installations, 321 flushing and development of tube wells, 41 surface water flow measurements, 5 dug well cleaning, 3 Auguring, 2 jetting, 2 bedrock profiling and a light drilling activities.

In addition to above activities Ground Water study project on Integrated Strategic Environmental Assessment in Uva province was undertaken and about 50% of the project was completed. The general issue was the target of tube well drilling was not achieved during the year due to frequent breakdowns of old drilling equipments, poor sharing of machineries and adverse weather conditions.

## ▶ Sociological Activities

Sociology Section has been established creating new post of AGM (Sociology) in order to do the following activities

- Conducting of Socio - economic feasibility studies for water supply development projects
- Guideline for planning of sociological study has been prepared and sent it to all RSCs
- Conducting demand analysis for projects associated with water supply sector through stakeholder / beneficiary consultation particularly in rural water supply schemes
- Train selected number of permanent staff attached to NWSDB in socio -economic analysis in carrying out socio-economic feasibility studies for water supply projects
- The recognition of the skills of beneficiaries in participatory management and their capacity building requirements in project planning and socio-economic feasibility studies with respect to rural water supply schemes
- Ensure familiarity of socio-economic feasibility studies among the planning staff of the NWSDB and extend the knowledge of understanding of the methodology adopted among the stakeholder/ community beneficiaries in respect of the water supply schemes

### **Sociological Activities and Role of Sociologist**

- Development of Sociological Polices Strategy and Guidelines
- Monitoring of Community Managed Water and Sanitation Systems

- Project Appraisal in order to reflect Community needs and Expectations
- Social Impact Studies and Benefit Monitoring Studies
- Planning and Facilitation of Community Managed Water Supply Systems
- Capacity Building and training

### **Development of sociological policies strategies and guidelines**

- Preparation of policy for incorporating socio-economic, ethnicity related cultural and religious values along with environmental concerns and gender issues during planning and design phases of the projects. Several studies have been completed at RSC level
- Prepare guidelines to balance the environmental concerns, technological development in harmony with different social climate. A guild line on preparation of small scale water and sanitation were completed
- Develop policies and strategies for implementing water source sanitary surveys, water quality surveillance programmes and water safety plans in consultation with the Chief Chemist, Water Resources Specialists etc. Awareness programme was held to support regional staff on WSP (water Safety Plan)
- Preparation of Social safe guard and mechanism and grievances redress mechanism through relevant project staff .In the process of preparation of guideline on same

### **Monitoring of Community Managed Water and Sanitation System**

- Compilation and maintaining information and data on physical characteristics, economic aspects, social infrastructure, demography, social organization, gender issues, poverty, strengths and capacities of the NGO sector at the national level by establishing mechanism at regional level with the assistance of regional sociologist.
- Preparation and standardization of policy documents with regard to user participation, participatory development and community management. Brief note on community participation has been completed.
- Promote and institutionalize the need based demand responsive approach and strategies of participatory development process in NWSDB planning process. It has been doing through RWS units

### **Project Appraisal in order to reflect Community Needs and Expectation**

- Develop strategies to involve users in the planning process in the urban water supply systems and implement pilot level programs .A summary report of planning of small-scale water and sanitation has been completed.
- Involved in the Project Appraisal Process by preparing guidelines and reviewing the projects submitted for appraisal.

### **Social Impact Studies Benefit Monitoring Studies**

- Study and analyze the social perspectives in reduction of UfW & NRW and developing appropriate mechanisms for the reduction programmes in consultation with others. Brief report on above has been completed based in Moratuwa
- Impact study on Rain Water Harvesting Tank through rain water harvesting forum has been completed

### **Planning and Facilitation of Community Managed Water Supply Systems**

- Planning, coordination, facilitation and monitoring of all community participatory activities in consultation with RSCs into project formulation process through regional sociologist has been established through RWS units
- Coordinate with other relevant agencies and institutions for developing river basin committees and water sharing committees where relevant, in consultation with Water Resources Planning personal and others through projects sociologist

### **Capacity Building and Training**

- Several awareness programme were held for sociologist in head office and regionally.
- Document on social dimension of water resources management has been developed
- Planning of rural water supply and sanitation programme were held in order to make aware on official by RWS section

## **Non Revenue Water Reduction**

Non Revenue Water (NRW) has four major components. They are physical losses, administrative losses, theft or unauthorized consumption, free water (un-billed but legitimate water consumption).

### **Water Supply for Low Income (Underserved) Settlement in Colombo City**

Disconnection of common outlets and provision of individual connections to the underserved on concessionary terms is called "Randiya" Program. There are 1571 underserved settlements in Colombo City. The Government plans to relocate them outside Colombo City on a long term plan. However, the NWSDB continued to implement the "Randiya" Programme. The benefits of having individual connections improve hygienic conditions and enhance quality of life.

Most of the occupants in these settlements are daily wage earners, and to make it convenient for them to process the individual water supply application and make

the required payments, mobile offices were conducted in large settlements during 2012. During this year, provision of individual connections were promoted in Tenement Gardens (TG). Due to the delay in occupants voluntarily coming forward, repeated visits to the TGs has to be made. In total, 752 connections were provided after disconnecting 121 common outlets.

### **Metered Common Outlet in Colombo City**

Due to the congestion in the Tenement Garden area, it was decided to provide a common outlet / yard tap for solely the use of a group of families which comprises around 5 families instead of individual connections. The consumption through this common outlet is metered and payment has to be made for the consumption by the beneficiaries. This practice was introduced in 2010. During 2012, 979 common outlet committees benefitted under this programme. To encourage regular monthly payment, a concessionary rate was introduced.

### Reduction of Unauthorized Consumption

Identification on unauthorized consumption is carried out by four Engineering Assistant Gangs; various methods are adopted to locate the unauthorized consumer. Some of the method adapted are responding to information received from the general public, programmed search in area for unauthorized consumption in commercial premises, check all premises in identified area a planned manner with intention to cover the whole Colombo city. Special program was initiated in 2011 to compare 108, 770 premises registered in the voters register with the list of NWSDDB customers in Colombo city. Illegal consumption was detected and as of revenue of Rs. 8.0 m was levied.

During this year alone 1, 164 detection have been made and Rs. 43.23 m has been levied. It is essential to note 32 detection made payment over Rs. 100,000/= . Rs 13.1 m earned Table shows the changing pattern.

#### Steps Taken for NRW Reduction

##### a) Customer Premises Survey to Reduce Unaccounted for Water

Visits to customer premises were initiated in 2009 with the objective to identify and address all factors that contribute to UFW within the customer premises. The outcomes of this practice were, system pressure improvement, dropping in NRW in selected areas and increase in consumption. The general observation was that even in the best of residential area, unmetered, unauthorized consumption could be seen.

##### b) Empower the O&M Staff for NRW Reduction

Effective NRW reduction could be achieved when all four factors that contribute for NRW are addressed simultaneously. This was carried out through the JICA Grant project "Capacity Development in NRW reduction in Colombo City". Within the scope of the project only two zones are covered. Opportunity was extended for others in Colombo City to get the know how.

In carrying out this exercise, buried valves were surfaced and they were made to operate or replaced. Maps were updated with newly identified information.

The condition of the existing pipes were known. Bundled pipes were replaced. House connections given from different roads became known.

### Services Provided by the NRW Section

#### a) Identification of leaks in Distribution Systems

Whenever there is a visible leak or suspected leak the assistance is provided, this could be to Western Central region or to outside regions. Location of leaks has to be done during night time when there is no external disturbance from moving vehicles. This year in total 103 Leaks have been identified out of these 43 identification were done to outside regions.

#### b) Identification of leaks in private premises

Customer premises leak checking is done for a fee on the request of the customer. This service can be provided to even those who are not our customers. Customers make their request to the relevant Area Engineer for the required service and make the necessary payments. During 2012, 628 premises have been checked. Among them, leaks have been confirmed in 458 premises. In addition, 6 commercial premises were checked.

#### c) Flow and Pressure measurements

During 2012, 188 measurements of flow and pressure using portable instruments had been taken for calculation of NRW figures. Further, 159 measurements were taken on request from various parts of the country.

### Location of Underground Information

#### a) Valve Location

The importance of a valve is known only when it has to be operated for some operational purpose such as to stop water flowing to attend to a repair, control the flow in the distribution system, isolate an area etc. The necessity to operate a valve occurs rarely. Valves get covered when road improvements are made by other agencies. In 2012, 119 buried valves have been located in Western Central area and 13 on request by other regions.

#### b) Identification of Underground Water Pipes

When pipes are being laid along the road there are many utilities, well in advance it is necessary to identify the utilities and distinguish the existing water mains. The detection equipment could be used by well trained dedicated staff, it is a very slow and time consuming process. During the year 650 m of pipe tracing was made out of this 100 m was done outside western central area.

### Details of Unauthorized Consumption Detection

Description	2008	2009	2010	2011	2012
No. of Premises checked	22,637	17,165	15,057	21,994	13,619
No. of Detection made	3,115	1,638	1,669	1,477	1,166
Recovery loss of Income (Rs. million)	65.83	45.61	55.07	56.23	43.23

### Main activities in some of other areas



Step Testing

Highlights of NRW reduction activities in the Western North RSC were; 15 km AC pipe replacement in Padiliyathuduwa road, Eeriyawetiya road, Nuge road, Old Kandy road, Dippitigoda road & Matagoda Puwakwatta road, Identification of AC pipeline to be replaced in Kalaniya & Wattala areas.

Highlights of NRW reduction activities in the Western South RSC were; Replacement of 12,710 defective meters, Replacement of AC pipes, AC pipe abandonment, Relocation of Bulk flow meter at Digarolla bridge, Replacement of CI pipes along Galle road for 800m.

Highlights of NRW reduction activities in the Central RSC were; Relocating and Sealing 52,000 House connections, Improvement in the operating procedures for provision of new service connections, Pipeline extensions, Relaying under-depth and aged pipelines, preparing leakage database, Bulk meter installation at reservoir sites, Distribution improvement and development of zones, Pressure management in the distribution system, Ensuring the material quality, Integration of house connections and leakage database with the maps.

Highlights of NRW reduction activities in the North-Western Province RSC were; Implementation of Pilot Project at Polgahawala (Average NRW for 12 months has come down from 15.4% and reached 14.4%)

Highlights of NRW reduction activities in the Southern RSC were; Relocation and sealing of 5000 water meters, replacement of defective water meters, Improvements to new connection practices, NRW measurement with adequate accuracy, Reduction of leakage, Distribution improvements, Ensuring quality of materials used for water works.

Highlights of NRW reduction activities in the Sabragamuwa RSC were; Distribution improvements in Balangoda and Eheliyagoda WSS, Replacing AC pipelines in Good Shed road, Construction of 16 Valve chambers, Removal of Bundle pipes.



Installation of Boundary Meters

## Energy Management

The energy management programme of the NWSDB achieved substantial progress and activities upgraded to a higher level qualitatively and quantitatively.

M&E Services Division is fully equipped with energy measuring equipments to carry out all types of energy audits for energy management works at NWSDB.

Meanwhile Manpower Development & Training Division has carried out awareness programmes on importance of Energy Saving.

The savings due to the tariff category rectifications, mechanical and electrical capital works and other energy saving projects, which were completed in previous years, were continued during the 2012 and it caused a higher accumulated energy & cost savings. Energy audits

carried out for 24 water supply schemes in 2012 will be encountered estimated annual energy saving of LKR 2.1 million for its energy audit recommendations for a estimated investment of LKR 14.36.

Nine energy efficiency improvement projects have been completed during 2012 with total investment of LKR 82.1 million causing LKR 12.9 million annual savings. This includes both energy efficiency initiatives of M&E Services Division & M&E section at Regions.

Seven energy efficiency improvement projects have been approved by appointed special Project Appraisal Committee in 2010 with the total investment of LKR 72.6 million against the estimated annual savings of LKR 32.9 million from audits carried out during 2009 - 2011.

The implementations of these 7 projects along with another identified 21 Energy Efficiency projects have been scheduled for 2013 with allocated funds for rehabilitation work for 2013.

After a special budget allocation of LKR 140 million to M&E Services Division for energy conservation projects for year 2013, the projects approved in year 2012 are been scheduled for implementation in year 2013. This includes 28 numbers of projects with the annual electricity saving of 3.5 million kWh & annual maximum demand saving of 12x330 kVA. This contributes to total sum of LKR 40 million annual saving.

Two low efficient Jubilee pumps at Ambatale treatment plant were replaced with the initiation of M&E staff at Ambatale with the investment of Rs. 80.0 million which lead to save annually 697,600 kWh worth of Rs. 8.0

million. With the ongoing system improvement project at Kalutara WSS, new pumping main from Central Junction to Maggona was replaced which lead annual saving of 422,500 kWh worth of Rs. 2.8 million. Two high lift pumps were replaced at Galgamuwa WSS with the investment of Rs. 1.5 million which lead 108,700 kWh amount to Rs. 1.1 million annual saving.

Back wash pumps' operational changes at Yakkala pump house resulted Rs. 112,000.00 annual saving and removal of blockage at Pinnarawa pumping system lead annual saving of 12,000 kWh worth of Rs. 125,000.00.

Power factor correction as an electrical power system improvement has been resulted of maximum demand saving of 71 x 12 kVA worth of Rs. 0.9 million at Balakawala, Nadugala, Pinnarawa and Samanthurai pump houses during year 2012.

## Stores Management

Stores Management and Inventory Management have been identified as a key area which needs specific attention from an operational and financial perspective considering the value of stocks and the number of Stores available in the Board throughout the island. During the year under review, we were able to reduce the considerable amount of unproductive stock and idling /static stores by way of rationalization of stores.

With the Business Process improvement and re-engineering taken up in the Enterprise-Wide IT Solution for the NWSDB, several new policies are brought into effect and implemented in the area of Supply Chain Management under purchase, Supplies and Inventory Management System (IMS), during the year 2012. Considering the need for the valuation of stock based on average pricing, a software system was developed in September 2012, for implementation of average pricing of stock items in all the stores until the IMS Module is fully operative.

We are in the process of extending the computerized inventory management system implemented at the main stores to other Regional Support Centres during the year 2013. We hope to link this facility to all the regional stores to view the stocks available with them. Hence we can access stock related Information to all potential users as well as minimize procurement of stocks already available elsewhere. Further we can provide up to date stock holding of all the regional stores.

We have allocated fund under RH budget for the improvement of infrastructure facilities of the stores. As the first step Regional Support Centres have started improving the qualities of existing stores and providing necessary facilities for safe keeping of stored item. Eastern RSC has newly constructed three stores buildings at Batticaloa, Akkaraipattu and Ampara regions under rehabilitation funds to improve stores conditions which was very poor due to the conflicts prevailed in this area. Further a Tender has been initiated for construction of Boundary Wall and Fence at the main stores, Polwatta and LS yard at Thelawala.

'Stock' has become a challenge to NWSDB. As such action is taken to maintain only the essential quantity of goods and to minimize the quantity of slow moving and non moving stocks, which is considered as a stagnation of the Capital Investment. Every year "Post Verification" activities are carried out in all RSCC and Unserviceable, Obsolete stocks are Identified and disposed regularly. These stocks occupied large areas at various locations resulting in capital tie-up. By this process, most of the stores environments are kept clean and orderly.

A committee has been appointed to develop System Manual & Procedure on Stores Management aspect to streamline the store management activities. This manual would be ready for implementation by mid 2013.

## ▶ Research and Development

### Package Water Treatment Plants

In recent past years, National Water Supply & Drainage Board has constructed several package water treatment plants in the capacities varying from 500 to 2000 cubic meters per day. These conventional package water treatment plants are ideal for rural water supply schemes and small towns up to around 3000 cubic meters per day capacity where Mega plants are most suitable for highly urbanized areas where population is highly concentrated. Compared with the package water treatment plants the investment for mega plants is very much high. The land area needed for package plant is much less. Further, movability and shorter 2 to 4 month fabrication and installation period are advantages. The capital investment for a package water treatment plant is in the range of Rs 18,000 per house connection for the treatment plant only.

Under the guidance of Hon. Minister of Water Supply Dinesh Gunawardena, the Research & Development Section initiated the first 500 cum package plant at Pugoda in the year 2005. In recent past years with continuous improvements Research & Development section has designed 500, 1000 & 1500 cum capacity plants with unit operation modules cascade aerators, mechanical or hydraulic rapid mixing and flocculation, Tube settler which is a smaller foot printed settling unit and rapid sand filters. This is a good example of team work within NWSDB with the design done by the Research & Development Section, drawings by the Planning & Design Section, Fabrication & Installation by the Central Work Shop and the field adjustments, design of supporting units, construction, supervision, operation & maintenance by the regional staff. The Research and Development section is in the process of continuous improvement of this appropriate water treatment system.



Oyamaduwa Treatment Plant

The work done in 2012 includes 1500 cum/day package treatment plant in Oyamaduwa for the Deyata kirula Exhibition and 1000cum/day package treatment plant in Thanthirimallei.

Two more 1000 cum/day capacity plants are in the process of fabrication to be installed at Tissawewa & Thambuttegama in Anuradhapura. A 500 cum/day capacity plant for the Killinochi town is under fabrication with new feature of ZIG-ZAG cascade aerator in addition to that a test filter with dual media of sand and Garnet. This plant will require only 100 square feet of land.



Thanthirimallei Treatment Plant

### Water quality Analysis in Selected Location of Kalu Ganga

In Sri Lanka 103 rivers flow radially from central hills to the Indian Ocean. Out of these, twenty rivers could be identified as major rivers. Kalu Ganga is the 3rd largest river. At present NWSDB has two major intakes located at Kadana & Kethena along Kalu Ganga.

A water quality study in Kaluganaga was initiated in January 2012 with the collaboration of University of Sri Jayawardenepura. The main objective of the study was to identify the type and the locations of possible river pollution as this kind of study has not been done for Kalu Ganga. This study covered checking of physical & chemical parameters, heavy metals, bacteriological parameters, oil, grease & Poly aromatic carbons etc. The field work has been completed with monthly sampling for 12 months. The study has concluded that the river water quality is within the Sri Lanka Standards for raw water for conventional treatment.

However the tributary "Mahawak Oya" showed low pH values in the range 5.5 to 6.0, BOD of 2.7 mg/L and TOC of 60 mg/L which indicates pollution and alarms to be vigilant.

### Use of Sodium Hypochlorite (NaOCl) solution Chemical Disinfectant for Household Water Treatment (HWT)

Around the world there are number of household water treatment techniques in practice. In South Asia plain sedimentation, cloth filter, boiling, solar disinfection and chlorination are the five most commonly used HWT options. Boiling, cloth filter and plain sedimentation are widely used traditional household water treatment option in Sri Lanka. Solar disinfection is used by few households.

The disinfection of drinking water and municipal wastewater provides critical public health protection. Disinfection destroys bacteria and viruses, helping to protect ecosystems and preventing the spread of waterborne disease such as cholera, typhoid, dysentery and hepatitis 'A'.

The main objective of this study was to produce commercially available Chlorine solution [Sodium Hypochlorite (NaOCl)] for disinfection as household water treatment and for usage in emergency situations in Sri Lanka thus reducing the mortality & mobility of water borne diseases.



*Bottles containing NaOCl 10% Solution*

Research & Development section has prepared a household disinfectant solution (NaOCl) product on pilot basis. As an initial step, it is planned to conduct a filed survey of households to obtain their perception. The survey will be conducted within a population who use domestic well water for drinking purposes.

The product will be provided in 50ml bottles containing NaOCl 10% solution. One such bottle could be used by an average 5 member family for 6-8 months. A bottle will be priced around Rs 150.

#### **Water Safety Awareness Programmes (WSAP) with WHO Collaboration**

Water Safety Plan is a mechanism introduced by WHO to protect the safety of drinking water from the source to consumer. The main events cover the source protection, efficient treatment, avoiding contamination during transmission and distribution. The general public is unaware or inactive on means of keeping water sources pollution free and the pipe lines leak free such that water could be used for drinking purposes with minimum or no treatment thus reducing the cost of providing safe water.

Research & Development Section with World Health Organization (WHO) funding implemented Water Safety awareness programs at regional level. These programs enhance the safety of water specially at the source due to participation of stakeholders such as Public Health Inspectors, farmers, Community based organizations, local authorities etc in these programs. It was possible to conduct six programs in Southern region and four in Northern region.

#### **Solutions for Chronic Kidney Disease of Unknown Etiology (CKDu) affected areas**

Research and Development Section has been working on providing relief to the CKDu affected population in the North Central, North Western and Uva provinces.

According to current findings by WHO and others this disease is suspected strongly to be caused by drinking water or food contaminated with heavy metals or chemicals complexed into toxicity by specific soil conditions caused by heavy use of pesticides and fertilizer.

As the suspected cause for the disease is combined effects of Hardness, Fluoride and other chemicals in drinking water, NWSDB is in the process of providing treated water to the people of the affected areas. Many sources of the area are found to contain high hardness and conductivity which cannot be removed by the conventional water treatment. As a solution to this problem NWSDB has initiated brining in the Reverse Osmosis technology to provide better quality water to the affected community at affordable cost. As many of the affected community belong to the rural areas with much less population densities, the plan is to provide bowser fed water distribution system with 1000 L water tanks. One such tank is sufficient for 3 households per two weeks only for drinking and cooking purposes. The cost per household per month is 300 Rs for this service. At present the bowser water supply system is being implemented in the affected areas and the Research and Development section is working on expanding this service with better quality water using reverse osmosis technology.

Also the "Rainwater for drinking pilot project" with 154, 2000 Liter capacity tanks in Polpithigama is being monitored during this year. Seventeen new rainwater tanks were provided in Hanguranketha yaya in Girandurukotte under a similar project.

#### **Pilot study on elevated ground reservoir water level monitoring system and remote accessing of online water level data at a particular reservoir through mobile phone**

In NWSDB water level monitoring and recording of ground reservoirs are considered to be vital for getting decisions in operation levels. In most of the places the levels are recorded manually and the responsibility was given to Pump operators. Hence, human errors have been identified and it may lead to wrong operational decisions in most cases. Therefore, human errors have to be minimized for better management information system (MIS) while collection data which are going to process in MIS. Having identified the aforementioned drawbacks Research and development section proposed pilot water level monitoring system for groundwater reservoirs. The project was implemented on pilot basis with out come of real time water level recording into mobile phone which could be used to calculate pipeline flows and even NRW.

## Information Technology

The IT division of the NWSDB was strengthened and well equipped to implement the IT solution island wide and maintain it using the in-house staff/resources. A Microsoft proposed IT infrastructure improvement solution was implemented to enhance the security, control, reliability of the existing IT facilities. This solution includes the following:

- Implementation of domain setup based on Microsoft active Directory infrastructure.
- Implementation of Microsoft exchange server based in-house email system.
- Implementation of share point server solution to enhance software development strategy.
- 600 MS office license were added to eliminate pirate copies of office packages used in NWSDB (requirement as per copyright laws)



Server Room

Seven new servers were added to the data center at Head Office as a data center/server room improvement. The VPN connectivity was expanded to Regional Main stores for the implementation of the IMS module and Remote VPN facility was introduced as a low cost solution for regular VPN.

Implementation of enterprise wide IT solution works were carried out during the year. Implementation of HRM module at head office, implementation of payroll module at head office, implementation of IMS modules up to regional main store level, implementation of BRS module at regional offices and implementation of CIS module at regional offices were the components of enterprise wide IT solution.

Design and development of new software solutions were carried out throughout the year. Call center solution (1939), vehicle register solution, sewerage Bowser billing system, software package for tender branch, software for average price calculation of stock items and document repository for uploading and registering important documents (eg: circulars, standing orders) were some of the developed software solutions in the year 2012.

## Policy Formulation

The following policies and guidelines have been developed with the help of other relevant divisions and stakeholders.

- Cabinet paper on Water Quality Surveillance has been prepared and obtained the approval.

- Guideline on Water Quality surveillance has been prepared and trained the relevant offices

## Institutional Development

The Corporate plan 2012-2016 is aimed at developing a new organizational culture to cater for the demands of national infrastructure within the water sector. Looking in a broad perspective, a new culture which will be implemented through developments flowing from the top to bottom of the hierarchy of the organizational structure will be designed through appropriate need assessment. The program is aimed at, changing organizational culture; changing employee attitudes, achieve corporate goals, transferring the vision of the organization to employees and employees' subsequent contribution. In view of achieving these goals a programme tailored to streamline the IT, MIS, HRD training, PR and customer services, operational

efficiency, Quality Improvements, R&D and Management initiatives will be launched using foreign funds.

The above programme achieved the progress as detailed below during the year 2012.

A special committee chaired by Addl. GM (N/C) was appointed for the purpose of changing attitudes of employees and subsequently five meetings were held in that regards. The important features of the existing culture were recognized as far as it could be perceived practicably. The identified features and proposed changes were circulated within the committee to consider for accommodating in the present setup. The

water treatment specialist presented the committee, a model presentation proposed in view of changing attitudes as initial step to the process. This presentation is being improved on the Specialist's purview to be adapted to the NWSDB in the near future. A presentation was scheduled to be held in January 2013 for Board members includes chairmen, GM, Addl. GMs and DGMs in order to demonstrate the module suggested for the culture change in view of obtaining their due comments to be incorporated in the module.

Action has been taken to identify subject areas for which expertise employee groups have to be formulated. A circular was issued regarding preparation of a programme as to enhance awareness of activities done by each division and interaction among employees within the staff segments. Necessary steps have been taken to motivate employees to provide their dedicated contribution to the extent practically possible.

A counselor's service was rendered in RSC Southern and Uva for needy employees to direct them in a positive

thinking approach upon identifying the requirement. A suggestion box has been maintained by RSC Southern in order to setup an appropriate system to enhance motivation of employees by addressing the issues of all categories of staff treating without undue differentiation. Action has been taken to sprout artistic and other special talents of employees and form a club for each section RSC Southern, Eastern and Head Office in order to make use of those talents for building motivation among all the fellow employees. Nine programmes were held including four in Central and Eastern RSCs to recognize extra contributions from professionals of all disciplines. Number of seminars and training programmes were held in RSC Southern in view of applying for productivity award offered by accredited agencies. Liberal actions were taken to pave way for achieving excellence making use of the available resources based on a suitable agreed criteria. A meeting was held in RDA and initial step was made to implement technology sharing programmes with outside organizations heading for a holistic approach.

## **New Initiatives**

---

- As a precaution for chronic renal failure of the people living in certain areas of the country, it was suggested to provide drinking and cooking water in large cans. A Treasury owned state company under the Ministry of Water Supply & Drainage is planned for establishment for this purpose. The Article of Association were prepared and submitted to the Ministry.
- Discussion was held with the Treasury, local contractors and local banks to secure local bank financing for developing water supply projects. Cabinet approval was secured for the first project in this nature during 2012. Nearly 30 projects are planned for implementation commencing from 2013 under this programme.

# INFRASTRUCTURE DEVELOPMENT

Water is life! it is a precondition for human, animal and plant life as well as an indispensable resource for the economy. Water also plays a fundamental role in the climate regulation cycle.  
Save Water!  
Every drop counts.

*Drawn by:  
Vimukthi Lokuliyana of Ananda College,  
Maharagama for the  
World Water Day Poster Competition 2012.*

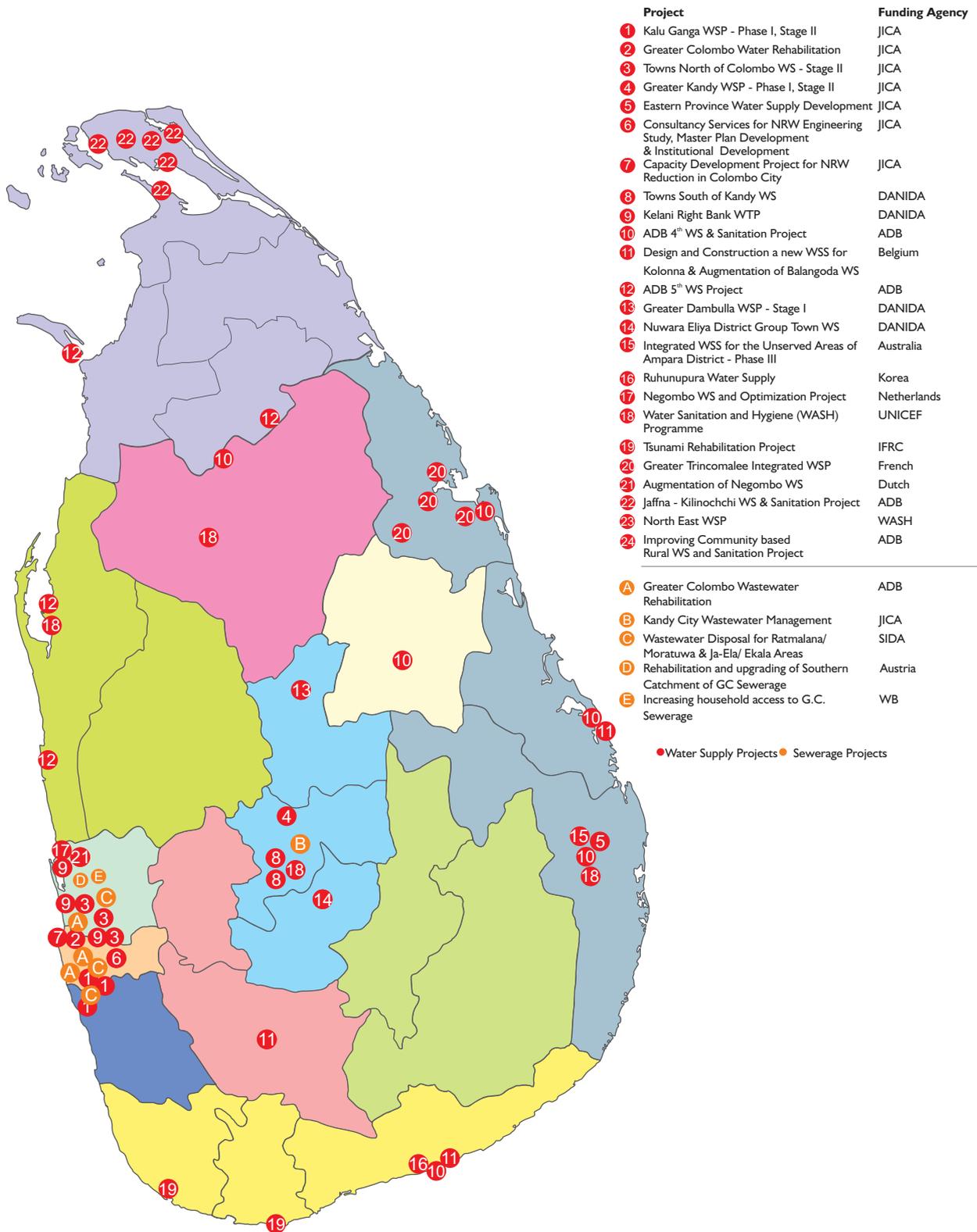




# Ongoing Projects

## Major Water Supply and Sewerage Projects Accomplishments

### Location Map of Foreign-funded Projects under Construction/ Augmentation during 2012



## FOREIGN FUNDED WATER SUPPLY PROJECTS

### Projects undertaken with JICA assistance

#### 1. *Kalu Ganga Water Supply Project Phase I Stage II and Non-Revenue Water Reduction in Greater Colombo area*

The Kalu Ganga Water Supply Project Phase I Stage I was completed in 2008. The detailed designs of Phase I Stage II commenced in 2008 and completed in 2009.

The objective of this project is to meet the increasing demand for drinking water in the Southern part of Greater Colombo. 250,000 people living in Kesbewa, Piliyandala, Jamburaliya, Kumbuke and surrounding areas will be the beneficiaries. Total cost estimate is Rs. 10,846 million

The project components are water treatment plant at Kandana - Horana of capacity 60,000 cu.m./day, 1,000/800 mm diameter 15 km long DI transmission main, 450/400 mm diameter 7 km long secondary mains, Non-revenue Water reduction in Colombo City by the rehabilitation of 57 km long distribution pipe lines in Pettah, Hulftsdorf and parts of Kotahena and Maradana in Colombo and water towers at Kesbewa, Jamburaliya and Kumbuke.

Construction of water towers at Kesbewa, Jamburaliya and Kumbuke were completed. Supply & laying of DI transmission mains and secondary mains in Bandaragam to Piliyandala, laying of uPVC/DI pipes, fittings, specials and valves in Kesbewa, Jamburaliya areas are in progress. Construction of Kandana water treatment plant extension having a capacity of 60,000 m<sup>3</sup>/day is under procurement stage. Physical and financial progress as at the end of the 2012 are 66 % and 46 % respectively.



Pipe supports at Gammanpila tank bund area for exposed pipes

#### 2. *Greater Colombo Water Rehabilitation Project*

This rehabilitation project is intended to upgrade the service level of safe drinking water supply in Colombo area. This is one of the major projects planned with a view for achieving the Millennium Development Goals among many such capital projects. This project is a step forward to the NWSDB's long term strategy for the Non Revenue Water Reduction Programme in Greater

Colombo area. Total cost estimate is Rs. 4,785 million. It is planned to rehabilitate and enhance the water supply systems of CMC and Kotikawatta -Mulleriyawa area.



JICA Site Visit on 27th February 2012 at Elli House Reservoir Site

The Project comprises of four packages. They are i) Construction of a new office building at Maligakanda, ii) Supply and laying of distribution network in Kotikawatta - Mulleriyawa area, iii) Major civil, electrical and mechanical works; Transmission main in Kotikawatta-Mulleriyawa area, Construction of Maligakanda reservoir, Elli House new reservoir and Gothatuwa Tower and iv) Water supply improvement to low income settlements providing 1,000 water connections for 8 - 10 tenement gardens in Colombo City. JICA concurrence was received for several works.

At the end of 2012, the project had achieved physical & financial progress of 74 % and 73 % respectively.

#### 3. *Towns North of Colombo Water Supply Project Stage II*



Ekala Reservoir

This project is designed to extend water supply services to the northern part of Greater Colombo. After the full implementation of the proposed project, transmission and distribution facilities will be provided for the areas of Ja - Ela, Kandana, Ragama, Welisara, Ekala, Mahara, Ganemulla and Biyagama targeting to serve a population of 500,000. The Stage I of this project was completed in November 2006. The total cost estimate of Stage II of the project is Rs. 6,490 million.

Civil works under original scope were completed and handed over to O&M division for providing new connections. Supply and installation of mechanical and electrical works have been completed. Replacement of

old AC pipes in TNC area, replacement of large diameter defective section valves is in progress. The physical and financial progress are 97 % and 94 % respectively.

#### **4. Greater Kandy Water Supply Project Phase I Stage II**

Greater Kandy water supply project is designed to provide safe drinking water to Kandy district and to minimize the Non Revenue Water percentage. The project will be completed in two stages. Stage I was completed in January 2007 which provides 36,670 cu.m. / day water to 294,000 people in Kandy city. Main components of the stage I were a raw water intake with a capacity of 110,000 cu.m. / day, a pumping station with a capacity of 38,000 cu.m. / day and 2 treatment plants at Kondadeniya and Katugastota.

Stage II is currently in progress to improve service level of 231,000 consumers and provide 30,000 new connections in Kandy Municipal Council (KMC) area, Ampitiya, Rajapihilla, Kulugamma, Nugawela, Heerassagala, Meekanuwa, Mullepihilla, Elhena, Gohagoda, Kondadeniya and Thelambugahawatta areas. Stage II is divided into eight independent packages including the consultancy package. Construction of sedimentation and flocculation basin and domestic water meter test apparatus is in progress. Contract for balance works of construction of clear water reservoir is to be awarded in 2013 march. Consultancy services for design review and design of construction supervision project is in progress and the date of completion was extended up to 2013 July. The TCE for stage II is Rs. 4,164 million. It was expected to complete the project in 2012. As earlier schedule the physical and financial progresses were 94 % and 113 % respectively.



*Greater Kandy Water Supply Project*

#### **5. Eastern Province Water Supply Development Project**

This project is to serve about 209,270 people in Ampara area. Water sources are Mahaweli River, Konduwattuwana and Rambukkan Oya reservoir. Total cost estimate is Rs. 6,526 million. Sub projects of the project in the priority order are transmission main from Konduwattuwana to Kalmunai distribution system for Pottuvil, Water Supply Schemes for Tsunami Housing

Schemes at Uhana, Damana and Hingurana.

Construction of civil structures were commenced in 2011. Four contract packages for Supply and delivery of DI pipes and fittings including PE pipe supply were completed during 2012. Tender for laying Supply and Delivery of PE pipes and fittings was recalled and bids are under evaluation. Tender for laying of a transmission main and laying of transmission system and Mahaoya treatment plant construction packages are under evaluation. The cumulative physical and financial progresses were 70 % and 22 % respectively.

#### **6. Capacity Development for NRW Reduction in Colombo City (JICA)**

Main objective of this project is capacity development for NRW reduction in Colombo City. Two pilot zones, Borella and Kotahena have been selected and equipment required for establish NRW in the two zones have been received. System improvements to reduce NRW in the two selected zones such as pipe replacement, valve and meter repairs or replacement, removal of illegal connections, etc. was carried out. This project is to benefit 267,000 people in the area. The estimated cost is Rs. 200 million.

The physical and financial progresses at the end of 2012 were 100 % and 100 % respectively.

#### **7. Rehabilitation of Kilinochchi WSS**

Kilinochchi WSS was damaged during the armed conflict. Rehabilitation of the scheme was carried out with a total cost estimate of Rs. 1,417 million. Damaged civil structures of the treatment plant and intake were rehabilitated with further foreign funding allocation of Rs. 20 million. Capacity of the treatment plant is 3,800 m<sup>3</sup>/day and target population served is 38,000 under this project.

The components of the project are M&E works of intake, aerator, slow sand filter and high lift pump house, 1000 m<sup>3</sup> and 450 m<sup>3</sup> elevated towers at Kilinochchi and Paranthan, 98 km HDPE transmission main, 42 km distribution main, roughing filter and intake tower.

The grant agreement signatory was done in March 2012 and the necessary works started such as tendering, discussions with RDA and Railway, Land Acquisition, etc. The construction work will be started from April 2013.

#### **8. Consultancy Services for NRW Engineering Study, Master Plan Update and Institutional Development**

The brief description of the project is providing recommendations and solutions for the water supply improvement in Western Province to meet demand up to 2040 under master plan update considering water resource study, water demand study, water balance study, transmission study, storage and distribution study and NRW engineering study in Colombo city and

institutional development.

Major deliverables of this project are updated master plan up to 2040, GIS based hydraulic models (Water GEMS), staged development plans, feasibility reports for prioritized projects and final report of master plan update, NRW studies and institutional development.

The water demand assessment was done using the 2001 census data. But after June 2013 the 2012 census data was released. Therefore the demand had to be revised using the latest data because of the big difference between the two census data. This problem delays the progress of work. Several workshops and training programmes were conducted for the staff from NWSDB and outside agencies. The physical and financial progress of the project are 69 % and 66 % respectively.



Workshop held on 19.12.2012

#### **Projects undertaken with DANIDA assistance**

##### **1. Towns South of Kandy Water Supply Project**

The objective of this project is to provide safe drinking water to Kandy South area by the integration and expansion of the existing schemes.

Water sources are the Mahaweli river, Paradeka stream and Ulapane Oya with full treatment while from intake wells at Mahaweli river bank at Elpitiya with disinfection only. The effluent from the treatment plants will be directed to sludge treatment systems, and discharged into natural water ways. The revised TCE is Rs. 9,626 million.

Total water production expected by this project is 68,000 cu.m./day, including the augmentation of existing systems and the target is to serve around 350,000 people in Peradeniya, Pilimatalawa, Kadugannawa, Murutalawa, Danture, Gampola, Ulapane and Welamboda.

The main features of the project includes new technologies such as the use of High Density Poly Ethylene pipes for water transmission and automation of the headworks using the SCADA system. It also addresses improved system management through the provision of 19,000 service connections in parallel with distribution pipe laying, so that consumers will immediately benefit upon the commissioning of the scheme. Reduction of water wastage using above

techniques is a main feature of the project.

Physical and financial progress of the project as at the end of 2012 are 97 % and 90 % respectively.

##### **2. Kelani Right Bank Water Treatment Plant**

This is a high priority water supply project which was launched with the objective of improving water supply situation in towns in the northern part of the Western Province, namely, Biyagama, Kiribathgoda, Kadawatha, Ragama, Wattala, Kandana, Ja-ela, Seeduwa and Ganemulla. It is intended to feed the distribution network laid under the Towns North of Colombo Project funded by JICA.

The project comprises a raw water intake with a capacity of 360,000 cu.m./ day and a treatment plant with an initial capacity of 180,000 cu.m./ day (40 MGD) to be constructed on the right bank of the Kelani river at Pattivila, Ambatale which benefits about 1,000,000 people. The project commenced on 22nd October 2008 intending to complete in 2012. TCE of the project is Rs. 10,150 million.



Flocculation & Filtration Tanks

The salinity barrier at Ambathale is in progress. It will give complete solution for salinity water problem in drought seasons. Continuous water quality monitoring system is established at the plant. therefore water with the specified quality is being produced. The physical and financial progresses as at the end of 2012 are 98% and 93 % respectively.

#### **Projects undertaken with Indian assistance**

##### **Greater Dambulla Water Supply Project - Stage I**

The Greater Dambulla WSP - Stage I was commenced in March 2012. The water source is Dambullu Oya Reservoir (Ibbankatuwa) and the project components are 65,000 cum/day capacity intake 32,000 cum/day fully automated treatment plant with 2,500 cum clear water tank, 6 nos. of ground reservoirs and 3 nos. of elevated towers of a total capacity of 7,650 cum, 74 km long DI transmission mains and 228 km long pvc distribution mains. The Total Cost Estimate of the Project is Rs. 13,000 million.

Construction of raw water intake and pumping station, construction of water treatment plant and construction

of reservoirs are in progress. Laying of transmission mains and distribution mains also started this year. Water quality, quantity, water sharing and land acquisition problems were occurred. Clearances from other organizations also delay the project. Physical and financial progress as at the end of 2012 are 23 % and 61 % respectively.



Storage yard at WTP

## Projects undertaken with Asian Development Bank assistance

### 1. Secondary Towns and Rural Community-Based Water Supply and Sanitation Project (ADB Fourth Project)

Overall goal of the project is to contribute to the poverty reduction efforts of the Government of Sri Lanka and to promote the human development by improving access to safe water and sanitation for poor population; there by decreasing water borne diseases and reducing the amount of resources spent in these activities. The total revised cost estimate of the project is Rs. 29,680 million. The project aims to provide safe water to 969,000 people and sanitation to 171,500 in four urban centers, Batticaloa, Hambantota, Muttur and Polonnaruwa and the rural area of North Central province and capacity building of water sector institutions in providing safe water to the equivalent community.

The overall physical and financial progress of the project are about 93 % and 86 % respectively. The project was started in 2004 and it is expected to be completed in 2013. Project details and status at different places and components are briefed below.

#### (i) Urban Water Supply and Sanitation Component

**Hambantota District:** In Hambantota District the project will provide a Water Treatment Plant of capacity 15,000 cu.m./day by constructing an intake of capacity 120,000 cu.m./day, to provide 15,000 cu.m./day of treated water to 133,000 people. The major elements will consist of 5 new water towers at Ekkassa, Bolana, Bellagaswewa, Mirijjawila and Keliyapura, clear water tanks of capacity 3,500 cu.m. & 1,250 cu.m., Salinity barrier across Walawe ganga at Ambalantota and 156 km of distribution pipe lines. There is a sanitation component to provide 1,098 household toilets in

Hambantota District. Total estimated cost of the work in Hambantota District is Rs. 6,066 million.

The Hambantota water supply scheme was ceremonially opened by the Minister of Water Supply & Drainage on 28th February 2011. All the works were completed except the "Salinity Barrier" of which 89 % completed and to be completed by February 2013.

#### Batticaloa District:

In Batticaloa District the project will provide a Water Treatment Plant of capacity 40,000 cu.m./day by constructing an intake of capacity 100,000 cu.m./day, to provide 40,000 cu.m./day of treated water to a design population of 246,000 people. The major elements will consist of 7 new water towers at Chenkalady, Eravur, Iruthayapuram, Air Force Premises, Kallady, Kattankudy and Arayampathy, clear water tanks of capacity 7,000 cu.m. & 2,500 cu.m. and 277 km of distribution pipe lines. There is a sanitation component to provide Sewerage treatment plants of capacity 460 cu.m./day to the Prison and the Hospital and 1,387 household toilets in Batticaloa District. Total estimated cost of the work in Batticaloa District is Rs. 12,398 million.

The works were completed in Batticaloa and the scheme is in operation now. Storm water drainage systems also completed.

#### Polonnaruwa District:

In Polonnaruwa District the project will provide a Water Treatment Plant of capacity 13,500 cu.m./day, by constructing an intake of capacity 60,000 cu.m./day, to provide treated water to a design population of 85,000 people. The major elements will consist of 3 new water towers at Gallalle, Bandiwewa and Sewagama, clear water tank of capacity 1,700 cu.m. and 135 km of distribution pipe lines. Total estimated cost of the work in Polonnaruwa District is Rs. 5,455 million. All the works were completed and the scheme is in operation now.

#### Trincomalee District (Muttur WSS):

For Muttur Water Supply, the project will provide a Water Treatment Plant of capacity 8,500 cu.m./day, by constructing an intake of capacity 40,000 cu.m./day, to provide treated water to a design population of 52,000 people. The major elements will consist of 3 new water towers, a clear water tank of capacity 3,000 cu.m., a Ground reservoir of capacity 60 cu.m. and 127 km of distribution pipe lines. There is a sanitation component to provide 1,334 household toilets in Trincomalee District. Total estimated cost of the work in Trincomalee District is Rs. 3,485 million.

The storm water drainage systems were already completed in Muttur. The head works and treatment plant works are in progress and due to be completed in December 2013. The physical progress of Muttur scheme was 24 % at the end of December 2012.



Erection of Reinforcement for Rapid Sand Filter

**(ii) Work under Rural Water Supply and Sanitation Component**

**Anuradapura:**

In Anuradapura the project will provide 84 pipe water schemes and point sources of 1,778 rain water tanks, 1,456 dug wells and 55 tube wells. Population served is about 161,000. There is a sanitation component to provide 8,987 household toilets in Anuradapura. Total estimated cost of the work in Anuradapura is Rs. 999 million.

All the works were completed and additional works were in progress in three schemes. All the schemes were handed over to RSC (N/C) for continuation of balance work at the end of 2012.

**Polonnaruwa:**

In Polonnaruwa the project will provide 51 pipe water schemes and point sources of 1,228 rain water tanks, 3,132 dug wells and 6 tube wells. Population served is about 161,000. There is a sanitation component to provide 9,022 household toilets in Polonnaruwa. Total estimated cost of the work in Polonnaruwa is Rs. 874 million.

All the works were completed and additional works are in progress in eight schemes due to water quality and quantity issues. At the end of 2012 all the schemes were handed over to RSC (N/C) for the continuation of balance work and close monitoring of O&M.

**Batticaloa:**

In Batticaloa the project will provide point sources of 20 rain water tanks, 78 dug wells and 40 tube wells. Population served is about 8,293. There is a sanitation component to provide 293 household toilets in Batticaloa. Total estimated cost of the work in Batticaloa is Rs. 45 million.

All the works were completed and the schemes are in operation.

**(iii) Institutional Strengthening Component**

The objective of this component is Financial and operational improvement of the NWSDB. Work includes, Implementing strategies to improve financial management, Assets registry management and Improve operational efficiency. Total estimated cost of the work is Rs. 372 million. All the works were completed in this component.

**2. Dry Zone Water Supply and Sanitation Project (ADB 5<sup>th</sup> Project)**

NWSDB is implementing a project for water supply and sanitation improvements in North Western and Northern Provinces. Under this project, Vavuniya, Mannar, Chilaw and Puttalam towns will be provided with enhanced water supply and sanitation facilities as briefed in following paragraphs. The total cost estimate is Rs. Rs. 13,030 million.

The project was started in 2009 and currently it has achieved 22% overall physical progress and 11% overall financial progress. It will be completed by December 2015.

**Vavuniya:** In Vavuniya the project will provide a Water Treatment Plant of capacity 6,800 m<sup>3</sup>/day by constructing an impounding reservoir across the Peru Aru stream. Both surface water & ground water will be combined to provide 6,800 cu.m./day of treated water to a 88,000 people. The major elements will consist of 3 new water towers, one reservoir and 137 km of distribution pipe lines. There is a sanitation component to provide 2 public latrines and 500 household toilets in Vavuniya.

Construction of Vavuniya Regional Support Centre (3 storey building) was completed. A land was obtained (235 acres) from Forest Department to hand over to DS (Vavuniya) to provide resettlement compensation package. ADB has imposed 2 pre conditions prior to awarding any contract in Vavuniya. Substantial progress in providing compensation for affected families and a second biotic survey should be completed before awarding the contracts.

**Mannar:**



Pipe laying in Mannar town

Mannar improvements includes, developing 8 bore holes to provide 8,000 cu.m./day treated water to Mannar

township. One new tower and a ground water reservoir shall be constructed with 33 km transmission and 100 km distribution system to provide fully treated water to a designed population of 64,000 people. Four public latrines and 330 house hold toilets shall be provided.

Contract awarded for supply and laying of DI, HDPE and PVC pipes, specials, fittings and valves for transmission main and distribution system. Pipe laying and road reinstatement are in progress.

#### **Chilaw:**

In Chilaw, water will be extracted from Deduru Oya and it is expected to provide 12,000 m<sup>3</sup>/day of treated water to a design population of 83,000. The major elements of the scheme will consists of 12,000 cu.m./day water treatment plant in Bingiriya, 2 reservoirs, 43 km of transmission lines, 120 km of distribution lines. 04 Public latrines & 500 house hold toilets shall be constructed in Chilaw by the project.

The contracts for supply and laying of HDPE, DI pipes for water transmission main and distribution system were awarded for both stages in C hilaw WSS.

#### **Puttalam:**

Puttalam Water Supply Scheme shall include a 15,000 cu.m./day water treatment plant and water will be extracted from Kala Oya. The population to be served is 134,500. Puttalam proposed scheme shall consists of 2 reservoirs, 7 pump stations, 40 km transmission from Eluwankulama to Puttalam, 100 km distribution lines and a 15,000 cu.m./d water treatment plant. The sanitation component will have the construction of 3 public toilets & 500 house hold toilets in Puttalam town & suburbs.

### **3. Jaffna Killinochchi Water Supply & Sanitation Project (ADB 6<sup>th</sup> Project)**

This project is to improve drinking Water Supply facilities of about 689,000 people in Jaffna city, suburbs and several townships in the Jaffna Peninsula. It is expected to extract water from Iranamadu tank located in Killinochchi to supplement the Ground Water sources in the Jaffna Peninsula. Implementation will be done in two stages. The total cost estimate is Rs. 18,328 million.

The project Engineering and Institutional Consultancy (PEIC) contract was awarded on December 2012. It was eight months delay due to high competency. The distribution survey works completed. The population survey was completed in Jaffna MC area. The water quality monitoring and design works are in progress. Physical and Financial progresses achieved by the project are 15% and 20 % respectively.

### **4. Colombo Water Supply Service Improvement Project**

This project consists of four projects. The first two projects are for the water supply sector and the other two are for waste water sector. The total project cost is approximately US \$ 400 million. The overall objective of the project is to bring down Non-Revenue Water (NRW) percentage of Colombo city to a record low level and thereby saving water as well as improving financial situation of the NWSDB.

Current NRW percentage is around 49 % and its ultimate objective is to bring it down to 20 % in the whole city in year 2020.

The works which are going to be carried out are replacement of all CI pipes below 9" (440 km), Rehabilitation of above 10" CI pipes (75 km), systematic NRW management based on District Metered Area (DMA) concept to 38 Nos of DMA, expansion of distribution system in Towns East of Colombo, rehabilitation of Ambatale treatment plant , and institutional development and capacity building.

This project was commenced this year and progressing. Preparation of Bid documents for the work was undertaken by NWSDB and it is progressing. The financial progress of the project is 0.1 %.

#### **Projects undertaken with Korean assistance**

##### **1. Ruhunupura Water Supply Development**



*Intake of Ruhunupura WSP*

This is a new project to serve 112,000 people by the design horizon in 2025. Water source is Ridiyagama tank. The total cost estimate is Rs. 9,742 million. This Project is planned to provide drinking water to Ruhunupura and Mahaweli Development areas.

Construction of intake, water treatment plant, Reservoirs, Towers and pipe laying works are progressing satisfactorily. Because of two highways are under design stage unable to lay transmission main to Airport. Some foreign and local training programmes also conducted for the staff of NWSDB. Inauguration of Batampara tower construction happened in August 2012. Physical and financial progresses at the end of 2012 were 46 % and 41 % respectively.

**Project undertaken with Netherland (DUTCH) assistance**

**Augmentation of Negombo WSS / Negombo Water Supply and Optimization Project**

This project is a rehabilitation and augmentation. Water sources are Maha Oya and Kelani River with full treatment. The TCE is Rs. 7,288 million. 54% of the foreign component is a grant and 46% is a loan. The present piped water coverage in the Negombo Municipal Council area is about 59% and the water supply to most of the area is restricted daily from 8.00 am to 3.00 pm due to the inadequacy of water and transmission infrastructure.

The objective of the project is to enhance the service level of safe water supply by providing 24 hour service to 100% of the population within the service area. The area includes Kochchikade and Duwa-Pitipana in addition to the Negombo Municipal Council area. The population benefitted will be 198,000 by 2011 and 215,000 by 2025. The project scope includes construction of a 12,500 cu.m./day capacity new water treatment plant in Bambukuliya, laying of a 600 mm dia 14 km long transmission main from Ja Ela to Negombo to transmit 21,000 cu.m./day treated water from the proposed Kelani Right Bank plant, upgrading of existing pumping mains (6 km) to 350 mm DI, upgrading of electro mechanical equipment, 200 km long new distribution system and establishment of a modern water asset management system.

Already 24 hour water supply was provided in 2011 to all existing consumers. Defects liability of the Bambukuliya WTP was completed in 2012 October. The 600 mm transmission main and 682 km of distribution laying also completed. The completion of project is expected in end of June 2013. The physical and financial progresses as at the end of 2012 are 99% and 93% respectively.

**Project undertaken with Australian assistance**

**Integrated Water Supply Scheme for the Unserved Area of Ampara District Phase III**

This project is to serve about 150,000 people in Ampara area. Main components are 27,000 cu.m./day capacity water treatment plant, ground sump (22,250 cu.m.), elevated towers, pump houses and transmission and distribution mains. The water source is Himadurava Tank. The total cost estimate is Rs. 18,012 million.

The project has achieved 36% physical progress and 57% financial progress.

**Project undertaken with French assistance**

**Greater Trincomalee Integrated Water Supply Project**

The objective of this project is to increase the production capacity of the Kantale water-treatment plant to 54,000 cu.m./day (12 MGD) and thereby increasing the service level in the entire Trincomalee integrated WSS. The project scope is to rehabilitate and upgrade the existing Trincomalee WSS and construction of new schemes at Pulmoddai and Echchilampattu. About 330,000 people in the Trincomalee town and gravets, Kantale, Thambalagamam, Kinniya, Kuchchaveli and Eachchilampattu DS divisions will benefit from this project. The total cost estimate is Rs. 4,200 million out of which Euro 10 million is from the French Development Agency (AFD), Euro 10 million from the French Ministry of Finance (RPE) and Rs. 1,003 million from the GOSL. The water source is Mahaweli river with conventional treatment.



Construction of 2000 Cum capacity ground reservoir at Wellamandal

Project components in brief are Construction of new intake and pump-house at Alle Kantale bridge, Laying a new raw-water and transmission mains, Distribution system improvements, Rehabilitation and augmentation of Kantale WTP and service reservoirs, Introduction of a SCADA system and Construction of new WSSs at Pulmoddai and Echchilampattu.

The construction of intake, pumphouse, rehabilitation of reservoirs, laying of DI pipes and fittings from Mahawali intake to Kantale WTP, laying of PE/DI pipes and fittings for Kinniya and construction of water tower at Kinniya are substantially completed. Supply and delivery of pipes, fittings, valves and specials, rehabilitation and upgrading of Kantale WTP, and some pipe laying works are on progress. The project has achieved about 70% overall physical progress and 67% financial progress.

## **Project undertaken with Belgium assistance**

### **Kolonna / Balangoda Water Supply Project**

This project includes two main components which are Augmentation of Balangoda Water Supply Scheme and Construction of a New Water Supply Scheme for Kolonna. Project is commenced on 08th of May 2012 and planned to complete within two years. The proposed Augmentation of Balangoda Water Supply Scheme is planned to expand the water supply coverage by issuing new connections for 8,000 families and fulfill current deficiencies. In this regard, this component will serve 40,000 population and commercial and industrial water demands in Balangoda Pradeshiya Sabha area, Balangoda Urban Council area and a part of Imbulpe Pradeshiya Sabha area. Accordingly, the total water demand has been assessed as 7,700 m<sup>3</sup>/day in 2030 which will be abstracted from Walawe river at Weliharanawa where the existing intake is situated for existing Balangoda WSS.

The proposed Kolonna Water Supply Scheme is designed to provide safe drinking water to 40,000 people in Kolonna Pradeshiya Sabha area throughout the year and a part of Embilipitiya Pradeshiya Sabha area during the rainy season. Therefore 8,000 new connections will be issued, in addition to commercial and

industrial demand. Total water demand has been assessed as 7,700 m<sup>3</sup>/day in 2013, which will be extracted from Ereporuwa river at Vijeriya.

The physical progress of the project is behind the schedule due to Land issues, Access Routes problems and Initial Environmental Examination issues. Physical and Financial progress as at the end of 2012 were 10 % and 27 % respectively.



*Jayanthimawatha Ground Water Reservoir*

## FOREIGN FUNDED SEWERAGE PROJECTS

### Projects undertaken with Asian Development Bank assistance

#### **Greater Colombo Wastewater Management Project**

The project encompasses the rehabilitation of wastewater pump stations at Kolonnawa, Dehiwala and Mt. Lavinia. It serves 838,000 people in Kolonnawa, Dehiwala and Mt. Lavinia areas. Total Cost Estimate is Rs. 1.1 billion. Project period is from 2010 to 2015. Physical work will be started in 2014. It was planned to map existing sewer connections with extensions jointly with Mapping Section.

The Tenders were called for this project on December 2012 and it was scheduled to open the bids on March 2013.

### Projects undertaken with Swedish assistance

#### **Wastewater Disposal Systems for Ratmalana/Moratuwa & Ja - Ela/Ekala Areas**

This project is implemented under grant funding. The project components are as follows;

- Construction of wastewater disposal systems for Ratmalana/Moratuwa & Ja - Ela/Ekala areas (works contract) - under SIDA grant.
- Supervision contracts - under SIDA grant.
- Study for House Connections & off-network Sanitary Solutions - World Bank funds.

The work contract was commenced in February 2008 and completion will be in December 2013 including the O&M period of 18 months. The work contract is a design & build contract which comprises laying of Sewer Network, force mains, Pump Stations & Treatment Plants for both areas. Treated wastewater will be discharged to the sea near Lunawa lagoon in Ratmalana/Moratuwa area and to the Dandugam Oya in Ja - Ela/Ekala area.

Total Estimated Cost has revised in January 2011 and approval was obtained to revise up to Sri Lankan Rs. 16,155 millions.

At the end of 2012, overall financial progress and physical progress achieved were 87% and 72% respectively.

### Projects undertaken with JICA assistance

#### **Kandy City Wastewater Management Project**

The indiscriminate disposal of wastewater in the Kandy City causes pollution of the Kandy Lake, Meda Ela and finally Mahaweli river, the main drinking water source to Kandy and Matale districts. In order to find a permanent solution to this, NWSDB has proposed to implement a wastewater disposal system for the Kandy City. The proposed project intends to collect wastewater in 732 hectares of the city and then divert to a treatment plant of capacity 14,000 cu.m./day through a network of 94 km long pipe lines.

This new project was started in 2007 and completion will be in 2017. About 55,000 resident population and 150,000 migrant population in Kandy will be benefitted from this project.

Effluent discharge details are as follows;

Biological Oxygen Demand (in 5 days at 20 °c) should be less than 20 mg/l, total suspended solids should be less than 20 mg/l, Chemical Oxygen Demand 250 mg/l, total Kjeldahl Nitrogen should be less than 50 mg/l and Fecal Coli form (Most Probable Number per 100 ml) should be less than 40.

Total Cost Estimate is Rs. 22,585 million. The consultancy part carried out for the project has completed and construction works have commenced and has achieved 3% progress physically.

The major procurement activities related to the project are in progress. All the lands for construction activities were cleared. Major construction activities scheduled to be started next year.

The technical evaluation of tenders is in progress for the package I of the project which is design and construction of waste water treatment plant, main pumping station, treated effluent disposal system, sludge drying beds and supply of operation and maintenance equipments. The TEC recommendations also were approved by CAPC.

The evaluation report of technical proposal was accepted by the CAPC for the package-II which is design and construction of trunk sewers, branch sewers and service connections, manhole pumping station and supplying of O&M equipments.

A workshop held with stake holders regarding construction activities of the project, explaining road traffic arrangements are proposed tentative construction plan. Another workshop held for the priority customers.

In order to improve the productivity of the project office some activities were implemented such as introducing new file management system and introducing e-filling system and electronic database for project documentation.

## **GPOBA Funding Sewerage Project**

### ***Increasing household sewerage connections & Off Network Sanitary Solutions in Greater Colombo (World bank funded - Global Partnership on Output-Based Aid)***

The principal objective of the project is to increase the number of poor households in Greater Colombo area who benefits from improved sanitation systems and to ensure that their domestic wastewater is effectively managed prior to disposal rather than being disposed of untreated in urban water ways.

A secondary objective of the project is to pilot a new framework for delivery of improved sanitation services to poor households. The project area includes the areas of Greater Colombo in which NWSDB is the sewerage service provider.

Where sewers cannot be provided or are not appropriate, GPOBA funds will be used to stimulate the introduction of a new system of management of on-site sanitation.

NWSDB and Swedish International Development and Cooperation Agency (SIDA) submitted a joint proposal to the GPOBA requesting the support. The grant agreement has signed by GPOBA and the Ministry of Finance.

The project will provide services to 15,275 poor households in Dehiwala / Mount Lavinia area, Moratuwa Municipal council area Kollonnawa and Ja-Ela Pradeshiya Saba areas that currently rely on unsanitary pit latrines, non- functioning septic tanks or have no sanitary facilities at all. It is planned to complete the project within three years.

The Total Cost Estimate is Rs. 797 million. Out of this total amount, 50.94 % will be provided by the World Bank and 32.47 % will be provided by Government of Sri Lanka. NWSDB contributes 9.38% out of the total amount and the rest will be contributed by customers.

The project started in the 4<sup>th</sup> quarter of 2011 and at the end of the year detailed designs for Diyawrapura and direct connections had been completed.

## **Projects undertaken with Austrian Assistance**

### ***Rehabilitation and upgrading of Southern Catchment of Greater Colombo Sewerage***

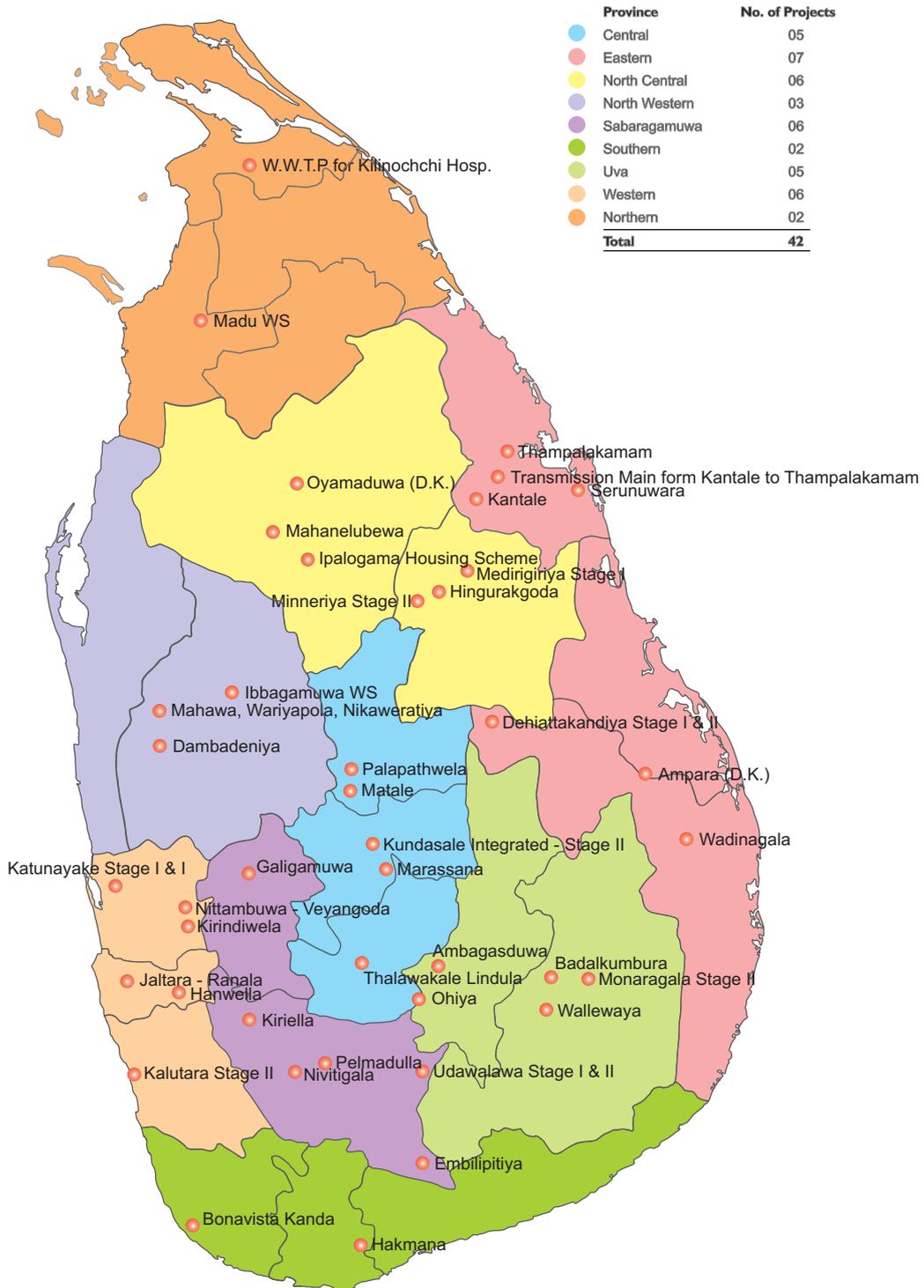
This project is for rehabilitation of existing sewer system with project period from 2007 to 2011. About 180,000 people of Southern part of the Colombo City will benefit from this project and 25,920 cu.m./day is the handling capacity. Total Cost Estimate is Rs. 2,222 million.

The objective of the project is to improve the collection and removal efficiency of wastewater generated in the Southern catchment of Colombo city.

The main scope covered under this project is rehabilitation of two main sewer lines approximately 8 km in length, leading to Wellawatte pumping station and construction of new pump house at Wellawatte. Status of the project at the end of 2010 were; almost 8 km sewer lines have been rehabilitated along Galle Road, Duplication Road, Havelock Road, Devos Avenue, Kirullapone Road, Ridgeway Road, Rajasinghe Lane, Vivekananda Mawatha, Kelani Road and Vajira Road and five out of the seven sections to be rehabilitated, have been handed over back to the CMC for operations, Manhole rehabilitation has been completed, Wellawatta pump house has been completed and is ready to be handed over to the CMC. Physical and financial progresses at the end of 2012 were 100 % and 100 % respectively.

## GOSL FUNDED SMALL AND MEDIUM SCALE WATER SUPPLY PROJECTS

Location Map of Projects under Construction/ Augmentation During 2012 Funded by the Government of Sri Lanka



## **GOSL FUNDED SMALL AND MEDIUM SCALE WATER SUPPLY PROJECTS**

### **Central Province**

#### ***Kundasale Integrated Water Supply Project - Stage II***

This is an augmentation to serve about 130,000 people in Kundasale, Balagolla, Digana, Arattana and Wawinna areas. Water source is Mahaweli River/ Huluganga with full treatment and capacity of 20,000 cu.m./day. Total Cost Estimate is Rs. 1,400 million. Presently a production of 13,000 cu.m./day is obtained from Arattana WTP. Treatment Plant improvements, pipe laying and M&E works are in progress. The overall progress at the end of 2012 was 85 %.

#### ***Palapathwela Water Supply Project***

This is an augmentation plan to serve 22,000 people in Palapathwela and Kottegoda areas using Suduganga as the water source. The treatment plant capacity is 4,000 cu.m./day with the full treatment process. Total Cost Estimate is Rs. 150 million. Treated water is pumped to a ground reservoir located at Palapathwela and distribution is planned through a 8 km long pumping main. Intake capacity is proposed to increase by 4,000 cu.m./day and necessary modifications are in progress. Supply and laying of distribution pipes and M&E works are in progress while the pump house construction was completed. Overall progress at the end of 2012 was 95 %.

#### ***Matale Water Supply Project***

This is a rehabilitation of the existing WSS to serve 15,000 people in Matale town area and suburbs. Water source is Suduganga with full treatment having existing treatment plant capacity 12,000 cu.m./day. Total cost estimate is Rs. 385 million. It is proposed to improve the capacity up to 16,000 cu.m./day under this improvement through construction of a new intake sump and pump house, treatment plant augmentation, pumping and distribution system improvements. Pipe laying in Kumbiyangana road was completed. Treatment plant and intake improvements and M&E works are in progress. The overall progress as at the end of 2012 is 90%.

#### ***Marassana Water Supply Project***

This is an augmentation to serve 25,000 new beneficiaries in Marassana town and suburbs, using raw water from Ma-oya with a full treatment method. Capacity of the treatment plant is 5,000 cu.m./day. Revised TCE is Rs. 222 million. Present production of 2,200 cu.m./day capacity is not enough to cater the rapid growing water demand of the area. All together there are about 3,500 service connections. Supply and laying of pipes at Mailapitiya and Pothgoda zones are in progress.

Distribution improvement also started in 2012. The overall progress as at the end of 2012 is 90 %.

#### ***Thalawakale / Lindula Water Supply Project***

This is an augmentation of the existing scheme to serve 15,000 people in Thalawakale and Lindula areas. Water sources are Great Western and Nanuoya. TCE is Rs. 172 million and funding sources are GOSL and Ceylon Electricity Board (rechargeable). The existing WTP (of partial treatment) having capacity of 1,650 cu.m./day is being augmented by increasing the production capacity up to 2,500 cu.m./day. It includes intake improvements and adding the components aerator, flocculator, sedimentation and pressure filters to the WTP. In addition it is expected to expand the existing distribution system to resettled areas of Upper Kotmale hydro-power project. The reduction of fund allocation effected the progress of dam construction in Kotmale project. Construction of intake weir, pump house and treatment plants are in progress. Overall progress at the end of 2012 was 80 %.

### **North Central Province**

#### ***Medirigiriya Water Supply Project - Stage I***

This is a new scheme planned to serve about 60,000 beneficiaries in Medirigiriya Divisiona Secretary area. Water source is Kaudulla tank with treatment having flocculation, sedimentation, rapid sand filters and disinfection for 9,000 cu.m./day. Sludge thickener and sludge drying beds are also proposed for treatment of sludge and backwash water. Total cost estimate is Rs. 638 million. This scheme aims to provide safe drinking water from Kaudulla Tank. This project consists of intake, raw water pumping system, WTP, storage facilities, transmission system and distribution system. The construction of intake was completed and distribution works were commenced this year. Construction of WTP and towers, M&E works and transmission main works are in progress. Physical progress at the end of 2012 was 70%.

#### ***Minneriya Water Supply Project***

This is an augmentation of the existing scheme to serve 69,000 people in Minneriya, Girithale and Hingurakgoda area. Water source is Minneriya tank and existing treatment process consists of rapid sand filters and disinfection system of 10,900 cu.m./day capacity. Total Cost Estimate is Rs. 100 million. Minneriya & Hingurakgoda water supply schemes are functioning from Minneriya WTP which is the only WTP available for the entire DS area. The scope of the project includes upgrading the intake capacity to 13,600 cu.m./day, augmentation of the existing Minneriya WTP and improving the storage capacities of both Minneriya & Hingurakgoda schemes. Improvements for the

treatment plants and distribution lines were almost completed. The physical progress at the end of 2012 was 97 %.

#### ***Mahanelubewa Water Supply Project***

This is an augmentation of existing scheme to serve 3,000 people in Mahanelubewa area. The project period is 2 years and distribution improvement only. This project was completed in year 2012. The physical and financial progress at the end of 2012 were 100 % & 88 % respectively. The Total Cost Estimate is Rs. 130 millions.

#### ***Ipalogama Water Supply Project***

This is a new scheme intends to serve 18,000 beneficiaries in Ipalogama Ranaviru village including 4 GN divisions in Ipalogama Pradeshiya Sabha area. The treatment plant with 4,500 cu.m/day capacity and the intake are common to both Ipalogama and Kekirawa existing water supply schemes. The water source is Kalawewa. Total length of the raw water pumping main is 4 km and the length of transmission main is 4 km. Total Cost Estimate is Rs. 798 million under GOSL funds. The construction of intake and sewerage system for Ranaviru village were completed. The construction of treatment plant and water towers are in progress. Physical and financial progress at the end of 2012 were 92 % and 75 % respectively.

#### ***Dayata Kirula 2012 (Oyamaduwa WSP)***

This project intends to provide safe drinking water within 2 years to 27,500 people in Mahawilachchiya & Thanthirimale areas in Anuradhapura district, which will cost Rs. 830 millions. It is proposed to improve Thanthirimale water supply and Oyamaduwa Water Supply Schemes. Viharamuna WSP was completed. Thanthirimale WSP and Oyamaduwa TP works are in progress. The physical and financial progress at the end of 2012 were 85 % and 64 % respectively.

#### ***Eastern Province***

##### ***Kantale (Agbopura) Water Supply Project***

This project meets daily requirement of 1,100 beneficiaries in Trincomalee District. The associated Total Cost Estimate is Rs. 275 million. The physical and financial progress at the end of 2012 were 100 % and 79 % respectively.

##### ***Thambalagamuwa Water Supply Project***

This project intends to provide safe drinking water facilities to 30,000 beneficiaries in Trincomalee District. The Total Cost Estimate is Rs. 95 million. Supply & Laying of distribution mains are in progress. The physical and financial progress at end of 2012 were 100 % and 89 % respectively.

#### ***Serunuwara Water Supply Project***

This is a new project proposed to serve 9,500 beneficiaries in Serunuwara, Kallaru and suburbs. The Total Cost Estimate is Rs. 110 million. Physical and financial progress at the end of 2012 were 100 % and 96 % respectively.

#### ***Dehiattakandiya Water Supply Project -Stage I & II***

This project intends to extend the safe water supply in Dehiattakandiya to 16,000 new beneficiaries. Total Cost Estimate Rs. 300 million. The physical and financial progress at the end of 2012 were 99 % and 84 % respectively.

#### ***North Western Province***

##### ***Mahawa/ Wariyapola/ Nikaweratiya Water Supply Project***

This is a new project planned to serve 9,000 families in Mahawa, Nikaweratiya, Wariyapola and suburbs. The raw water collected from Magalle will go through a full treatment with the capacity of 6,500 cu.m./day. Revised TCE is Rs. 996 million. Laying of distribution lines was completed. Construction of aerator, 200 m<sup>3</sup>/day WTP and sump, pumping main laying and intake improvement works are in progress. The overall physical and financial progress is 89 % and 86 % respectively.

##### ***Karukkapone Water Supply Scheme***

This project intends to provide safe drinking water to 2,500 beneficiaries in Karukkapone area in Puttalam District. Total Cost Estimate is Rs. 51 million. Supply & Delivery of pipes, Fitting and specials were completed. The physical and financial progress at the end of 2012 were 100 % and 65 % respectively.

#### ***Sabaragamuwa Province***

##### ***Embilipitiya Water Supply Project***

This is an augmentation of existing scheme with a treatment plant intends to serve 84,000 beneficiaries. Total Cost Estimate is Rs. 810 million. Construction of intake and water treatment plant are in progress. The physical and financial progress at the end of 2012 were 94 % and 93 % respectively of the original TCE.

##### ***Udawalawa Water Supply Project - Stage I & II***

This is an augmentation of the existing WSS. TCE is Rs. 973 million. Construction of treatment plant and intake were completed during 2009. The physical and financial progress at the end of 2012 were 90 % and 67 % respectively.

### **Godakawela Water Supply Project**

This new project intends to provide safe drinking water to 22,500 beneficiaries in Godakawela, Kosnathota, Rideewela and suburbs. The water source is Rakwana Ganga and water is fully treated in a WTP with the capacity of 4,500 cu.m./day. The project components are WTP, Caretaker quarters, gas chlorinators and back wash pumps. Total Cost Estimate is Rs. 288 millions. The physical and financial progress at the end of 2012 were 98 % and 73 % respectively .

### **Galigamuwa Water Supply Project**

Currently there is no pipe borne water supply in Galigamuwa Town. This project includes construction of new intake (5,000 cu.m./day) at Alawwa, a conventional WTP with the capacity of 5,000 cu.m./day, construction of ground reservoirs (225 cu.m. and 1800 cu.m.), pump house, supply & laying of 12 km, DI pumping mains, improvement for the existing distribution network & installation of pumps. Total Cost Estimate is Rs. 841 million and 30,800 people are to be benefitted in Galigamuwa town area. The physical and financial progress at the end of 2012 were 36 % and 26 % respectively.

### **Nivithigala Water Supply Project**

This project intends to provide safe drinking water to 9,400 beneficiaries in Nivithigala area in the Ratnapura District. Total Cost Estimate is Rs. 99 million. The construction of intake, storage tank and pumping main works are in progress. Most of the works are delayed due to allocation of funds. The physical and financial progress at the end of 2012 were 58 % and 71 % respectively.

### **Pelmadulla Water Supply Project**

This projects intends to supply safe drinking water to 14,500 beneficiaries in Pelmadulla area in Ratnapura District. The Total Cost Estimate is Rs. 384 million. The financial progress at the end of 2012 was 95 % of the original Total Cost Estimate. Construction of water treatment plant intake and pumping main works are in progress. Some works are delayed due to fund allocation and electricity supply. This project can be completed in June 2013.

### **Yatyanthota Water Supply Project**

This project intends to supply safe drinking water for 6,700 beneficiaries in Kegalle District. The revised Total Cost Estimate is Rs. 165 million. Intake improvement works were completed. Pipe laying works were delayed. due to fund allocation. The project was partially commissioned in early 2009. The physical progress at the end of 2012 was 90%.

### **Kiriella Water Supply Project**

This projects intends to supply safe drinking water to 8,000 beneficiaries in Kiriella area in Ratnapura District. The Total Cost Estimate is Rs. 205 million. Stage I of the project was completed in December 2011 and stage II was commissioned in early 2012. Designs work was done in 2012 and there were some delay due to arrival of materials. The physical and financial progress at the end of 2012 were 97 % and 11 % respectively .

### **Southern Province**

#### **Akuressa Water Supply Project**

This scheme will provide water to about 15,000 people living in Akuressa and Athuraliya DS divisions. Water extracted from Nilwala River will be fully treated before the distribution. The scheme has a capacity of 3,150 cu.m./day and the cost of the project was Rs. 338 million. Construction activities were delayed due to the change of location of water treatment plant and change of source. The Project was completed and commissioned in 2010 and the minor construction of the Treatment Plant was completed in 2012. The physical and financial progress at the end of 2012 were 100 % and 81 % respectively .

#### **Hakmana Water Supply Project**

Under the proposed Hakmana WSS, it is planned to supply safe drinking water to 10,000 beneficiaries in the Hakmana area. The project is to be implemented during the period from 2010 - 2012. The water source is a bore hole and water goes under partial treatment at a water treatment plant of capacity 1,800 cu.m./day. The major project components are intake improvements, new WTP, transmission and distribution pipe lines and supply & installation of pumps. The original TCE of the project is Rs. 383 million. The physical and financial progress at the end of 2012 were 60 % and 32 % respectively.

#### **Thihagoda Water Supply Project**

This project was planned to meet the rapidly increasing demand due to the development in Thihagoda and suburbs to serve about 6,500 people. The water source is two bore holes and the water under goes partial treatment in a WTP of 1,000 cu.m./day capacity. The total cost of the project is Rs. 162 million. The project was completed. The physical and financial progress at the end of 2012 were 100 % and 99 % respectively.

#### **Pitabeddera Water Supply Project**

Proposed water supply scheme intends to provide water to 6,000 people in Pitabeddera town area. The scheme consists of a conventional treatment of capacity 1,200 cu.m./day and will use two bore holes as the water source. The Total Estimated Cost of the project was revised to Rs. 130 million. Although construction activities were started in year

2007, progress was very slow due to the non availability of funds and poor performances of the contractor. A new bore hole was constructed and the pump has to be changed according to the new bore hole. The physical and financial progress at the end of 2012 were 98 % and 79 % respectively.

#### ***Bonavista Kanda Water Supply Project***

This is a new project planned for the benefit of people living in Bonavista Kanda area in Matara District. The scheme will cater 1,400 population. The total estimated cost of the project is Rs. 57 million. The delay in works were due to removing blasted rocks along the pipe laying area, newly exposed rocks and difficulty of water supply for construction works. The physical and financial progress at the end of 2012 were 100 % and 78 % respectively.

#### ***Uva Province***

##### ***Ohiya Water Supply Project***

This is a new scheme intends to serve 10,000 people in Welimada town and suburbs. Water source is Uma Oya with full treatment, of capacity 2,000 cu.m./day. The Total Cost Estimate is Rs. 265 million and physical and financial progress at the end of 2012 were about 96 % and 80 % respectively. Financial constraints faced by the contractor due to delay in payments. The fund allocations were not received on time.

##### ***Monaragala Water Supply Project Stage II***

This is an augmentation of the existing scheme to serve about 10,000 people in Monaragala town and suburbs. Water source is a stream through G-Lon estate with partial treatment of capacity of 3,500 cu.m./day. The Total Cost Estimate is Rs. 154 million and the physical and financial progress at the end of 2012 were about 98 % and 92 % respectively.

##### ***Ambagasdowa Water Supply Project***

This is an augmentation scheme to serve 6,000 people in Ambagasdowa and suburbs. Water source is Bomburu Ella with full treatment and a capacity of 3,000 cu.m./day. Total cost estimate is Rs. 382 million. The delay in in the project due to the funds were not received. The physical and financial progress at the end of 2012 were about 72 % and 36 % respectively.

##### ***Wellawaya Water Supply Project***

This project intends to provide safe drinking water to 6,000 beneficiaries in Monaragala District. The Total Cost Estimate is Rs. 250 million and the physical and financial progress at the end of 2012 were about 65 % and 39 % respectively.

##### ***Badalkumbura Water Supply Project***

This project intends to provide water to 22,000 beneficiaries in Badalkumbura area in Monaragala

District. The Total Cost Estimate is Rs. 124 million. The physical and financial progress of the project were about 86 % and 78 % as at the end of 2012 respectively.

#### ***Buttala Water Supply Project***

This project intends to provide water to 38,250 beneficiaries in Monaragala area under Dayata Kirula program. The Total Cost Estimate is Rs. 295 million. The physical and financial progress of the project at the end of 2012 were 100 % and 97 % respectively. This project has been completed.

#### ***Western Province***

##### ***Kirindiwela Water Supply Project***

This is a new project planned to serve 8,000 people in Kirindiwela area. The project period is 5 years. Water source is Kelani River with full treatment and effluent is discharged to inland water canal. The Total Cost Estimate is Rs. 198 million. The new treatment plant which can supply 2,750 cu.m./day. is in progress at the existing treatment plant site in Pugoda. The balance work at the intake, repairs to the WTP at Pugoda, pipe laying works and construction of sludge drying beds are in progress. Overall physical and financial progress as at the end of 2012 were about 90 % and 87 % respectively.

##### ***Nittambuwa - Veyangoda Water Supply Project***

This is a new/ augmentation project intends to serve 15,000 beneficiaries in Nittambuwa, Thihariya, Warana and Kalagedihena. The water will be extracted from Attanagalu Oya and undergo full treatment in a WTP having capacity 3,000 cu.m./day. The Total Cost Estimate for the project is Rs. 210 million. The poor performance of contractor and delay in design of sludge system effected negative progress in the project. The balance work of Treatment Plant and sludge removal system works are in progress. Overall physical and financial progress as at the end of 2012 were about 96 % and 96 % respectively.

##### ***Kalutara Integrated Water Supply Project - Stage II***

This scheme was designed in order to extend water supply to Payagala, Maggona, Beruwala, Dharga Town, Bentota and Aluthgama areas to serve 210,000 people. Project was started in 2006. Water Source is Kalu Ganga with full treatment and capacity is 56,250 cu.m./day. The revised Total Cost Estimate is Rs. 1,366 million.

The main objective of stage II is to improve the distribution system to Southern areas of Kalutara. Laying of DN 600 DI/PE pipeline from central junction to Maggona (9 km), laying 600 DI/PE pipeline from Maggona to Beruwala (5 km) and transmission main from Beruwala to Darga are in progress. The physical and financial progress at the end of 2012 were 58 % and 58 % respectively.

### **Katunayake Water Supply Project Stage I & II**

About 29,000 people in Katunayake, Seeduwa and Raddolugama will benefit from this project which is of capacity 4,500 cu.m./day. Water source is Dandugam Oya and water requirement will be obtained from augmented Raddolugama WTP. The Total Cost Estimate was revised to Rs. 470 million. Augmentation of the existing Raddolugama WTP was commenced and part of the distribution system has to be laid. The financial progress at the end of 2012 was about 62 %. Supply of pipes, laying of pipes along Negombo Puttalam road, pipe laying at Katunayake - Seeduwa areas and construction of pump house at Raddoluwa TP are in progress. The physical progress of the project was 62 %.

### **Jaltara - Ranala Water Supply Project - Phase I Stage I & II**

This project has been phased out and then again phase I, is staged out due to financial constrains. Phase I Stage I covers Jaltara and Henpita GNDs. Phase I Stage II covers Atigala East, Atigala West, Panaluwa and Batawala GNDs. Another 27 GNDs of Kaduwela and Homagama DSDs are to be covered under Phase II. It was expected to serve 7,646 population under Phase I Stage I, 10,273 under Phase I Stage II and 92,118 Under Phase II in 2030. Phase I project area is serving by taking a branch off at Embulugama Junction on low level road from the existing transmission main which supplies water to Colombo from Labugama WTP. Phase I Stage I of this project was completed in 2010. The Total Cost Estimate of Phase I Stage I was Rs. 103 million. Design and procurement of Phase I Stage II are already completed but due to non availability of funds, it cannot be implemented. The Total Cost Estimate for Phase I Stage II is Rs 114 million. The Physical Progress at the end of 2012 was 27 %.

### **Hanwella Water Supply Project**

This is an augmentation project intends to serve 20,000 people in Hanwella area. Water for this scheme is from Labugama - Kalatuwawa WTPs. Total cost estimate is Rs. 47 million. It is proposed to augment the existing water supply scheme to expand the distribution net work. Total length of new distribution is 15 km out of which 9 km had been completed except along RDA roads. The physical progress was 65%. Rs. 29 million is required to complete the rest of the work being the major constraint for the project.

## **Northern Province**

### **Nadunkerny Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Nadunkerny area in Vavuniya district. The capacity of this scheme is 400 cum/day. 5,000 beneficiaries are there in this scheme from eight GNDs. Nadunkerny Water Supply Project

was commenced on 2009 and the physical works are in progress. The total cost estimate of the project is Rs. 176 million.

### **Vidathalathivu Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Vidathalathivu area in Manthai West DS division, Mannar district. The capacity of this scheme is 500 cum/day. 8,500 beneficiaries are there in this scheme from five GNDs. Vidathalathivu Water Supply Project was commenced on 2009 and the physical works are in progress. The total cost estimate of the project is Rs. 204 million.

### **Thevanpiddy Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Thevanpiddy area in Manthai West DS division, Mannar district. The capacity of this scheme is 440 cum/day. 2,900 beneficiaries are there in this scheme from three GNDs. Thevanpiddy Water Supply Project was commenced on 2009 and the physical works were almost finished. The total cost estimate of the project is Rs. 168 million.



*Thevanpiddy Water Tank*

### **Adampan Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Adampan area in Manthai West DS division, Mannar district. The capacity of this scheme is 796 cum/day. 5,860 beneficiaries are there in this scheme from eight GNDs. Adampan Water Supply Project was commenced on 2009 and the physical works are in progress. The total cost estimate of the project is Rs. 296 million.

### **Valvattithurai Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Valvattithurai area in Point Pedro DS division, Jaffna district. The capacity of this scheme is 2,000 cum/day. 10,000 beneficiaries are there in this scheme from nine GNDs. Valvattithurai Water Supply Project was commenced on 2009 and the physical works were almost completed. The total cost estimate of the project is Rs. 249 million.

### **Maruthankerny Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Maruthankerny area in Maruthankerny DS division, Jaffna district. The capacity of this scheme is 61 cum/day. 1,500 beneficiaries are there in this scheme from three GNDs. Maruthankerny Water Supply Project was commenced on 2009 and the physical works were almost completed. The total cost estimate of the project is Rs. 26 million.

### **Pandiyankulam Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Pandiyankulam area in Manthai East DS division, Mullaithivu district. The capacity of this scheme is 316 cum/day. 2,260 beneficiaries are there in this scheme from five GNDs. Pandiyankulam Water Supply Project was commenced on 2009 and the physical works were almost completed. The total cost estimate of the project is Rs. 199 million.



*Pandiyankulam Water Tank*

### **Mallavi Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Mallavi area in Thunukkai DS division, Mullaithivu district. The capacity of this scheme is 633 cum/day. 4,500 beneficiaries are there in this scheme from five GNDs. Mallavi Water Supply Project was commenced on 2009 and the physical works were almost completed. The total cost estimate of the project is Rs. 192 million.



*Mallavi Water Tank*

### **Oddusuddan Water Supply Project**

The Objective of this plan is to provide water supply facilities to the resettled people in Oddusuddan area in Manthai East DS division, Mullaithivu district. 10,700 beneficiaries are there in this scheme from 14 GNDs. Oddusuddan Water Supply Project was commenced on 2009 and the physical works were almost completed. The total cost estimate of the project is Rs. 92 million.

### **Inter-Provincial Projects**

#### **Waganthale Water Supply Project**

This is a new project intends to serve 5,000 beneficiaries in the Waganthale and suburbs. The water source is Ma Oya. The project components include construction of 225 cu.m. ground reservoir and an access road. The Total Cost Estimate is Rs. 30 million. Project was completed and commissioned in March 2011.

#### **Pahala Kadugannawa Water Supply Project**

This is a new project intends to serve 5,000 beneficiaries in Pahala Kadugannawa and suburbs. The project period is 2010 to 2012. The water source is a spring located at Kadugannawa and water under goes treatment including disinfection in a WTP of capacity 1,000 cu.m./day. The Total Cost Estimate is Rs. 30 million. The physical progress of the project was about 99 % at the end of December 2012. Project was almost completed, but newly added work to be done.

## Projects to Commence Physical Works in 2013

### **Rehabilitation & Augmentation of Labugama - Kalatuwawa WTP (Hungary)**

The project includes the rehabilitation and augmentation of Labugama and Kalatuwawa WTPs to improve the quality of treated water and operational efficiency of the plants. It serves Colomo City, Kaduwela and Hanwella areas. Total cost estimate is Rs. 6,800 million and funding is from Hungarian Government. Loan agreement has to be amended for the contract to be effective.

### **Greater Ratnapura Integrated Water Supply Project - Phase I (Spanish)**

This phase will improve the services presently provided to the existing consumers as well as extend the WS to new areas. About 160,000 people in Ratnapura, Kuruwita and suburban areas will be benefited in 2025. Main components of this phase are 13,000 cu.m./day capacity WTP; intake at Kuru Ganga at Kuruwita, transmission and part of the distribution. The existing WTP will continue to serve the present consumers at 6,500 cu.m./day. The TCE is Rs. 9,928 million. Commercial contract agreement was signed and loan agreement is to be signed.

### **Greater Kurunegala Water Supply & Sewerage Scheme (Chinese)**

About 66,500 people who are living around Kurunegala Municipal area and part of the pradeshiya saba area will get benefit by this water supply project. This project will be funded by China and the TCE is Rs. 11,993 million.

### **Anuradhapura North Water Supply Project Phase I (JICA Funded)**

Chronic Kidney Disease Unidentified (CKDU) is an emergency health problem and it has a high economical cost to the people living in Anuradhapura North area,

namely Mahakadarawa Water Supply Project which covers Madawachchiya and Rambewa DS Divisions. The cost of loan component is JY 5561 million. The loan will be effective in year 2013.

### **Energy Conservation Project at Ambatale WTP (German)**

NWSDB carried out Energy Conservation Strategies in Ambatale WTP under two Energy Audits which has revealed that there is a potential for reducing the energy cost by 31% and substantial savings have been worked out to Rs. 10 million per month. The project consists of carrying out comprehensive Energy Audits, replacement of major transmission systems from Ambatale to Colombo to conserve energy, rearrange the pipe connections and rearrange and replace pumping units. Pumping arrangements are to be efficient to conserve energy. The TCE is Rs. 7,302 million. Contract and Loan agreements have to be signed and Project preparation work is ongoing.

### **Badulla, Haliela and Ella Integrated WS (US Exim Bank)**

The project scope includes construction of a water treatment plant of capacity 15,000 cu.m./day, pump house and rehabilitation of existing system. About 109,036 people living in Badulla, Haliela and Ella areas will benefit from this project. The project period is 4 years. The TCE is Rs. 8,707 million.

### **Greater Matale Water Supply Scheme**

The area covered by this project are Ukuwela, Matale, Udathenna, Yatawatta, Pallepola and Raththota. About 410,000 people living around these areas will be benefited by this project. The TCE for this project is Rs. 8,000 million. This project will be carried out with French assistance.

## Projects in Pipeline

### **Gampaha, Attanagalla & Miniwangoda WSP**

Gampaha, Attanagalla & Minuwangoda Water Supply Project shall provide safe pipe borne water to 575,000 people in 137 Grama Niladari Division in the Gampaha, Attanagalla & Minuwangoda electorates. The total estimated cost of the project is Rs. 33.0 billion. 100,000 new water connections are expected to be given from the project.

### **Colombo Water Supply Service Improvement Project**

The Colombo Water Supply Service Improvement Project is implemented with a total cost of Rs. 28,800 million. It consists of three components namely Service Improvement in Colombo through Pipe Replacement and NRW reduction, Energy Saving Component and Extending the Water Supply Facilities to Unserved Areas of Towns East of Colombo. The service improvement will cover a population of 700,000 and the Towns East of Colombo component will serve a new population of 142,000.

### **Monaragala, Buttala WSP**

A population of 50,000 living in 43 Grama Niladari Division in Monaragala, Buttala DS divisions is expected to be served by this project. The total estimated cost of the project is Rs. 5,265 million.

### **Anuradhapura North Water Supply Project Phase II**

A population of 315,000 living in 194 Grama Niladari Division in Madawachchiya and Horawpathana DS Divisions is expected to be supplied with safe pipe borne water supply facility through this project. The total estimated cost of the project is Rs. 9,750 million. This project would be a great relief to the people living in the Chronic Kidney affected area.

## ▶ Planning and Design

### WATER SUPPLY PROJECTS

The need for new water supply projects or augmentation of an existing water supply scheme is first realized by the Officer in Charge of water supply schemes. Other mega projects to be implemented in the area also necessitate relevant water supply projects to meet the drinking water needs of the respective area. Accordingly, proposals for WSSs are initiated in RSCs for the estimated demand for drinking water. A prefeasibility study is carried out to ascertain the financial and technical viability of the proposed project. Then a preliminary project proposal is prepared and forwarded to the Project Appraisal Committee (PAC) for approval.

New projects are ranked, province and island-wise yearly, based on selected criteria for sector planning purposes and the prioritization is used for approvals, funding inquires and sequence of implementation.

Design and feasibility studies of Major Projects that are to be implemented are carried out by the Planning and Design Section of the Head Office in consultation with the respective RSCs. This section is specifically in charge of reviewing the designs relating to projects being implemented using foreign funds, while carrying out detail designs of selected foreign and GOSL funded projects. The following paragraphs describe a summary of such activities.

#### Planning Works carried out during 2012 are:

- Review of conceptual and process designs of Greater Dambulla Water Supply Project and Kilinochchi Water Supply Project.
- Processing the prefeasibility report of Gawarammana - Bogahakumbura Integrated Water Supply Project located in Badulla district. Welimada DSD in Badulla District was affected by severe water shortage when dry spells in every year. About 30,000 population will be benefitted from this project by the 20 year design horizon and covers 17 GND's.
- Planning works of Serunuwara Water Supply Project
- Prefeasibility studies of Gampaha, Aththanagalla and Minuwangoda Integrated Water Supply Project.
- Prefeasibility studies of Katana Water Supply Project A long term Proposal.
- Prefeasibility studies of Kelani Right Bank Project - Phase II
- Preparation of revised proposal for Towns East of Colombo District Water Supply Project to obtain ADB/AFD Funds.

- Preparation of Request for Proposal (RFP) document for Colombo City Water Supply Improvement Stage I
- Coordination with other stake holders of Kelani river upstream reservoir
- Prefeasibility Study for Kalutara , Bandargama, Horana and Ingiriya Integrated Water Supply Project has been completed and submitted for NPD/BOARD/PAC approvals.
- Project proposal for Ingiriya and Handapangoda Water Supply Project is in progress.



*Proposed Source of Anuradhapura North WSP Ph. I (Mahakanadarawa Tank)*

#### Design Review Work carried out during 2012 are;

- The Southern/Eastern Sub Section of Planning and Designs Section has carried out the Review of process, Hydraulic and structural designs and similarly designs distribution and transmission systems of following projects, namely
- Ruhunupura Water Supply Project which includes 35,000m<sup>3</sup>/d Intake, 17,500 m<sup>3</sup>/d Water Treatment Plant, 3nos. Ground Reservoirs (3000 m<sup>3</sup> and 1000 m<sup>3</sup>) with Pump Houses, 3 nos. Water Towers (2000 m<sup>3</sup> each), Transmission Main (40 km) and distribution system (250 Km) and M&E works.
- Design review of Integrated Water Supply Scheme for un-served areas of Ampara (Phase III) project which includes Intake (35,000 m<sup>3</sup>/d), Treatment Plant (27,000 m<sup>3</sup>/d), transmission main and 4 ground sumps (2250 m<sup>3</sup>, 1600 m<sup>3</sup>, 1000 m<sup>3</sup> respectively.
- Design review of Kolonna - Balangoda Water Supply Project which includes two water supply schemes Kolonna consisting of 7000 m<sup>3</sup>/d capacity Intake, 7000 m<sup>3</sup>/d capacity treatment plant, (750 m<sup>3</sup> and 1000 m<sup>3</sup>) ground reservoirs, 31km transmission main, distribution system and supply and installation of M&E equipment and Balangoda consisting of 7000m<sup>3</sup>/d capacity Intake, 7000m<sup>3</sup>/d capacity treatment plant, two ground reservoirs of 1500m<sup>3</sup>

- and 1000 m<sup>3</sup>, capacity 3km transmission main, distribution system and supply and installation of M&E equipment.
- Review of structural, hydraulic, and process designs of Kelani Right Bank Water Supply Project
- Review of structural, and hydraulic designs of Salinity Barrier for Kelani River,
- Review of structural, hydraulic, process design and distribution and transmission design of augmentation of Negombo Water Supply Project,
- Review of Design work on Kalatuwawa and Labugama Dams under Dam Safety & Water Resources Planning Project
- Study the proposals submitted for Western Province Master plan Study.



Construction of Ampara (Phase III) WTP



Intake location for Balangoda

**Some detailed Designs carried out during 2012 are:**

- Point Pedro WS under the ADB Assisted Conflict Affected Region Emergency (CARE) Project and Maha Oya WS.
- Water supply to Diyagama Township Development including the Mahinda Rajapaksha International Sports Complex, utilizing Funds under Kalu Ganga WSP
- Design of a water supply system to Sri Lanka Army Housing Scheme at Manning Town, Narahenpita, as a rechargeable project.
- Transmission extension to Katunayake International Airport and BOI, under BOI funds

- Design of Bridge crossings for Transmission and distribution networks of Negombo Augmentation Water Supply Project
- Detail designs for shifting of 1000mm dia. Ambatale –Dehiwala transmission main and 1100mm dia. Ambatale-Jubilee transmission main at Polduwa Bridge, Battaramulla as requested by the RDA under RDA funds.
- Design of New distribution pipe lines from Maligakanda to Galle Face Area.
- Design of pump house for Nawala Booster pumps at Jubilee reservoir site.
- Kalutara Water Supply (augmentation) –Stage II.

**Designs carried out with respect to Mechanical and Electrical works are:**

- M&E designs and preparation of bidding document for Point-Padro Water Supply Project
- M&E designs and preparation of bid document for Echilampattu Water Supply Project
- M&E designs and preparation of bid document for Ampara Water Supply under JICA funds
- M&E designs and preparation of bidding document for Sewerage Treatment Plant at Aurwedic Hospital
- M&E designs and preparation of bidding document for installation of pumps at Wellawatta Sewerage Pumping Station

**Some energy saving activities taken during 2012 are:**

- According to the original design of Ruhunupura Water Supply Project, treated water should be pumped to the Batampara Tower from the 3,000 cu.m. capacity ground reservoir to about 10 km distance. The harbour should be fed from the dedicated pumping main from the 3,000 cu.m. ground reservoir of 8 km length. This arrangement was revised to minimize the pumping cost. As per the new arrangement proposed 3,000 cu.m. Ground Reservoir will be shifted to the location proposed for a 1,000 cu.m. ground reservoir and that 1,000 cu.m. ground reservoir will be shifted to Batampara Tower site in order to gravitate water to Siribopura ground reservoir and Batampara ground reservoir.
- Initially, treated water was pumped to the Siribopura ground reservoir from the Ambalantota WTP which was constructed under ADB 4th Project. Since the 3,000 cu.m. ground reservoir (under Ruhunupura WSP) is relocated in a higher elevation, Siribopura ground reservoir can be fed by the ground reservoir under gravity and Harbour is to be fed by Ambalantota WTP which reduces the pumping cost.

- Introduction of Variable Speed Drive (VSD) pumps in Gonagolla and Dadayanthalawa water distribution systems.
- Introduction of intermediate tank to serve high elevated areas in Gonagolla-Bakkiella WSS.
- Designing of VSD connected direct pumping distribution system in Uhana, Damana, Hingurana, Pothuwil WSSs of JICA funded Eastern Province Development Project.

**Documentation, Quantity Surveying and Design Manual Updating works in 2012 are:**

- Preparation of 14 Standard Bidding Documents (SBDs) and revision of 19 SBDs in the areas of supply of chemicals (foreign), supply and delivery of PVC, PE, DI pipes, supply of un-skilled labour and janitorial services, sale of obsolete items and redundant vehicles, DI vales and Building and Civil Works.
- In addition to the above, Specifications for Rubber rings, Sewerage valves, Polyacrilamides and Pre-Qualification of DI/CI valves and Manhole covers were completed. All these completed SBDs and Specifications have been uploaded to NWSDB website.
- Technical Circulars regarding procurement and documentation have been issued under GM's signature during this year.
- SBDs/ Specifications that have been prepared and are to be uploaded to the web after incorporating of the corrections are SBD for Pipe Laying, Supply & Installation of Gas Chlorinators and Supply of Water Meters and Specification for DI Couplings. SBDs for Supply of Ferrules and Local Design and Build are in progress.
- "Procurement of Quality Goods" and development of Sri Lanka Standards (SLS) for Pre-identified items are in progress.
- Standard Bidding Document Review Committee (SBDR) which was re appointed in 2008 to review bidding documents and to resolve issues in procurement was held 11 meetings for progress review in 2012.
- Assistance were given to donor funded projects in preparation of bidding documents and in solving number of matters relating to procurement and quality issues.
- Completed the draft versions of D5 Manual for Electrical, Mechanical and Instrumentation aspects of Water Supply Designs and D2 Manual for Urban Water Supply Designs. A new chapter on "Algae removal" was introduced for D3 Manual for Water Quality and Treatment. Revision of P1 Manual for preparation of Pre-feasibility and Feasibility Reports

were completed based on the comments received from Regions.

- A circular was issued by the General Manager to carry out at least one feasibility study by each RSC/ P&D Section, Head Office. Funds were available for such studies. Assistance was given to RSCs/ P&D Section in preparation of Pre-feasibility / Feasibility studies when required.
- Complete BOQs or parts of them relevant to 25 WSPs and another 87 no. BOQs were prepared. Engineer's Estimates were prepared for 30 contracts. In addition preparation of 2012 Rate Book for water and sewerage works were completed and rate book for 2013 are in progress.

**General issues for planning and design of piped WS systems are:**

- Design Review work : Design and Build contractors were reluctant to accept changes/ improvements proposed by the NWSDB staff resulting delays in submission of complete drawing sets.
- Adequate computers were not available for Engineers
- More training programs are required for Engineers such as Water CAD, Structural Analysis software (SAP, etc).
- In the present trend for all new projects of type design and build, the engineers do not gain any hands on experience in designing, as there are very few projects demanding detailed designs.
- Well experienced Engineers are required for design review. However, only few experienced engineers are available at present in P&D section.

**Outlook of the Planning and Design works for Wastewater Disposal Systems in 2012**

The year 2012 could be marked as a significant year in terms of the planning and design works aimed for starting numbers of wastewater disposal systems in several parts of the Country. The areas of works starts from Kataragama Sacred City, Hambantota New Urban City, Galle, Sri Jaywardhanepura-Kotte Area, Mahagama-Borelasgamauwa, Negambo, Chillaw, Puttalam, Kattankudy while extending technical support for the Design inputs required for the on-going sewerage projects in Ratmalana-Moratuwa and JaEala Ekala.

Request For Proposals (RFP) regarding Several Wastewater Disposal Systems in the above key Towns were issued as tender documents and Offers for the proposals were received. The evaluation of technical and financial offers was conducted during the year 2012. Further, the P&D- Sewerage Section has contributed for the development Wastewater disposal facilities for major institutions such as Defense Head Quarters,

Maharagama Cancer Institute, Improvement to Sewer network in Kollonnawa area to provide pipe born sewer network to Housing being developed for the low income families.

#### **Scope of P&D Works done for Major Projects in Pipeline during 2012**

The offers received for the RFP on Sri Jayawardhanapura Kotte Wastewater System were evaluated with several rounds of meeting between Project Committee (PC) and Standing Cabinet Appointed Procurement Committee (SCAPC). Scope of Micro-Tunneling was incorporated to the project items in Sri Jayawardhanapura Kotte Project for the 1st Time in a Sewerage Project. A Project Proposal has been received for the implementation of upgrading the wastewater collection and disposal system in Kataragama Scared City from an Austrian Project Proponent and the offer was accepted for implementation. A RFP for the implementation of wastewater systems in Four Towns in Maharagama-Borelasgamuwa, Negambo, Chillaw, and Puttalam were called and the evaluation of the bid received for the four towns projects is under evaluation.

Also, RFP for providing a Wastewater collection and disposal system for Kattankudy was called and the offers are being evaluated. The RFP document for Galle Wastewater Disposal and Collection was prepared during the year 2012 and subsequently the document was modified for due to change in the technical Scope of the project after analyzing the results of mathematical modeling of sea out fall.

The Environmental Impact Assessment (EIA) of the Galle & Negombo Wastewater Disposal Projects was awarded to the EML Consultants and the Field Works and investigation were completed. The Draft EIA Study Report for Galle and Negambo has been almost completed.

For Hambantota, Maharagama-Borelasgamuwa, Negambo, Chilaw, Puttalam, Kataragama Project Scoping meetings were held and Field visit with CEA, UDA and other relevant agencies were completed. The EIA of Hambantota Wastewater Disposal Project was decided to offer to University of Ruhuna. All the remaining Studies for EIA are expected to be offered to the Universities. The Preliminary technical proposal developed for Extension of Piped Sewerage Coverage for Dehiwala - Mt. Lavinia Municipal Council Area was revised. Designs on buildings for quarters at Soysapura were completed.

All Engineering estimates of major projects were updated to reflect the real physical need of all the projects.

#### **Design Review Work carried out for the On-going Wastewater projects during 2012**

The P&D section involved in reviewing detailed designs and provided specialized technical assistance for three foreign funded projects, namely Wastewater Disposal Project for Ratmalana/ Moratuwa and Jaela/Ekala Phase I, Southern Catchment and Kandy City Wastewater Disposal Project Sanitization Component of Dry Zone ADB 5th Project.

The Design Work of Solar Sludge Drying Bed for Ja/Ela Ekala Phase I was done by P&D Sewerage section the project was completed.

#### **Rechargeable Sewerage Projects with Detailed Designs Carried out during 2012**

- Construction of wastewater treatment plant for Sri Lanka Ayurvedic Drugs Cooperation Factory (SLADC) at Navinna, Maharagama- Construction completed and satisfactorily commissioned in December 2012.



Construction of WTP for SLADC

- Wastewater Treatment & Disposal facilities to proposed Defense Head Quarters at Akuregoda and Pelawatta – Detailed Designs in progress.
- Cancer Hospital, Maharagama – Internal Network designing in progress and tender called for Forced Main and Pump House to connect the wastewater from cancer Hospital to Ratmalana/Moratuwa WW system.
- Sri Lanka Bureau of Foreign Employment, Dambulla – Detailed designs, BOQQ and Tender documents for a Septic Tank, Anaerobic Filter and Wetland system completed and submitted for calling tenders.
- Kolonnawa Salamulla Project – Detailed Designs in progress for improvement of existing Kolonnawa Network to connect the Salamulla and Government Factory Lands Housing complexes
- Karawanella Base Hospital Disposal System – Detailed Designs for Augmentation of Existing Wastewater Collection, Treatment and Disposal System in progress.

- Design of Wastewater Treatment & Disposal facilities to Kilinochchi Hospital and the Army Camp – Detailed Design stopped in the middle as a third party constructed a plant for the Hospital with external funding. The treatment analyses and advices were given for improvement.

**Technical Proposals prepared for Rechargeable Sewerage Projects.**

- Unawatuna Tourist Resort WWDS - Preliminary proposal was developed,
- Raddolugama Housing Scheme - PAC and Board Approval for the Short term proposal and Medium term proposals obtained,
- Sewerage Treatment Plant for National Zoological Garden at Dehiwala – This works will be undertaken as a consultancy work and Preparation of RFP document in progress,
- Providing technical advices to rehabilitation of wastewater disposal system of Balapitiya Base Hospital in order to commissioned the plant,
- Wastewater Treatment Plant in Boossa Prison camp was rehabilitated with essential repairs,

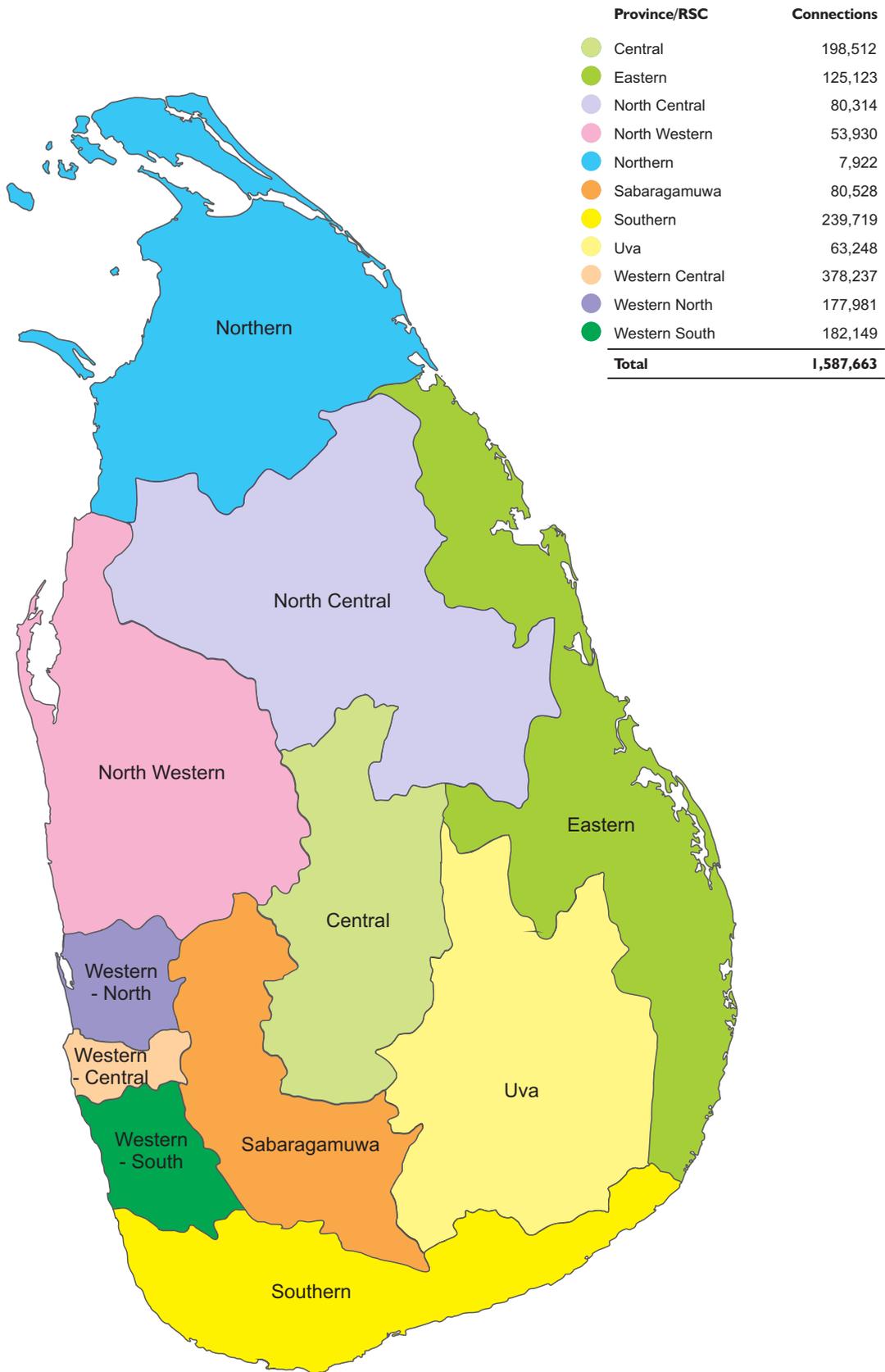
**Special events that took place on Planning and Design of Sewerage Projects during 2012**

- Finalizing and Distribution of Design Manual for Sewerage Works.
- Conducted a workshop for Productivity Improvement for Sewerage Staff on 2nd November 2012.

**Value of the Consultancy Works Carried out in 2012**

The Tentative Cost Estimates (TEC) of the rechargeable works that were commenced during 2012 is Rs. 859 Million and the NWSDB has received Rs. 13.6 Million for the consultancy fees as advance payments on rechargeable works.

## Regional Support Centres



## REGIONAL SUPPORT CENTRES

New projects are originated from the 11 Regional Support Centers of the NWSDB. As representatives of the Project Review Committee, the staff of RSCs' closely coordinate the planning and regulatory procedures of new projects. Also, the existing WSS and Sewerage Schemes are Operated and Maintained by them. Infrastructure Development, Reduction of Non Revenue Water, Energy Management and Institutional Development works and performance in water supply and sanitation sector of the RSCs have been included in appropriate sections. Some other important information which are not included in aforementioned sections are summarized below.

### Western - Central

During the year 2012 in 17 Nos of School awareness programmes and 12 Nos of Institutional awareness programmes were conducted. Furthermore many NRW reduction activities carried out in the Western South RSC area throughout the year. Leak surveys and repairs, Defective meter replacements and providing meters for the unmetered premises, replacing and resurfacing valves, inspection of illegal connections, replacements of pipes and disconnection of lines were some of the NRW reduction activities took place. Other than this some energy saving activities also carried out in this area such as replacement of pumps, installation of VSD for pumps, power off the pumps during the peak hours, individual switches for every electrical items instead of common switch, replacing fluorescent bulbs with CFL bulbs and Water transmission improvement.

Water supply improvement works along Ratanarama road, Jayawadanagama WSS, Avissawella area were carried out. Assistance to GCWRP staff for valve operating activities in connecting inlet to newly built reservoir at Ellie House was conducted. Also assistance given to Kalu ganga Project for valve operating and raising activities for new distribution lines.

Pipeline extension works were carried out in Kotte, Maharagama and Manager South area of 9km, 55km and 1km respectively. Furthermore rechargeable works, such as pipe laying at Denzil Kobbekaduwa Mw, Water supply facilities to SriLanka housing scheme at Manning Town and Water supply facilities to IT Park (Malabe) were also carried out during the year 2012.

### Western - South

Pipeline were extended in Kalutara, Panadura-Horana, and Dehiwala of 18 km, 37 km, and 4 km respectively. Two number new rural water supply schemes were completed and another 23 number new rural water supply schemes are in progress. Totally 1208 families are beneficiary from these schemes.

Panadura-Horana regional and site stores project and Moratuwa stores were completed in 2012. Totally works of 1.5 million worth executed by RSC (W-S) during the year. In Kalutara, Panadura-Horana and Dehiwala regions rehabilitation activities were carried out for 30 million, 12 million and 31 million respectively.



KGWSP Opening Ceremony

Other important development activities implemented in all three regions are replacing of AC pipes, Fixing of valves, AC abandonment in Payagala, supply and fixing of section valves with chambers, supply and delivery of asphalt cutters and dewatering pumps, service connection transferring, supply and installation of bulk meters, supply and delivery of submersible pumps are some of the development activities carried out in the above areas.

### Western - North



Excavation along Katunayake-Seeduwa by Road

Proposals were prepared for improvement of RWS facilities in Divulapitiya DS division. Bore holes were constructed in 4 RWS schemes under UNISEF funds. Totally 638 km of pipeline extensions were done in the Western North region. Nine numbers of Rechargeable works were completed and another 6 numbers of works are in progress.

Repairing corroded section of Church Hill trunk main, installation of Dosing pumps at Veyangoda WSS, Supply of submersible pumps for Ranpokunawatta, Mirigama and Minuwangoda areas, retaining wall construction at Malwana, stores, tank and pipe yard construction at Veyangoda are some of the rehabilitation activities taken place during the year 2012.

Pipeline relocation works and Proposal for Giridara and Udamapitigama WSS were completed. Raddoluwa Sewerage Scheme, Mirigama WSS, Kalagedihena sludge drying beds, Katana water supply project are important development activities carried out.

### **Southern**

Fourteen proposed projects out of 16 were obtained Cabinet Approval in the Southern RSC throughout the year 2012. Designs of 8 projects were completed and another 4 projects are being designed with 50% progress. NRW reduction activities carried out includes relocating water meters and sealing, replacing meters, reduction of leakage, distribution improvements covering the whole Southern Province.

Three energy saving activities were performed in this region in the year 2012. Two Rural Water Supply Schemes in Galle district, 13 schemes in Matara district and 25 schemes in Hambantota district were implemented. Pipeline extensions of 243 km in length within three districts were completed.

Filter in Hapugala treatment plant was improved and several training programmes were arranged including 8 school programmes in Galle district.

### **North Central**

Feasibility Study for Anuradhapura North water supply project was completed by JICA and a PD office was started. RFP was issued for Anuradhapura South water supply project. PAC approval was received and board paper was sent for Towns North of Polonnaruwa water supply project. Design work for Minneriya, Hingurakgoda and Mahanelubewa water supply project were completed and 80% design work was completed in Medirigiriya and Ipalogama water supply projects using capital budget.

Oyamaduwa and Thanthirimale water supply projects were completed under Deyata Kirula 2012 funds. Sandamaleliya - Thambiyawa water supply project was completed to provide drinking and cooking water requirement of the people in Thambiyawa village. Kunchuttuwa water supply project to provide drinking and cooking water requirement of the people in Kunchuttuwa in Kebithigollewa DSD was completed using Deyata Kirula 2,012 funds. Total number of benefited from RWS schemes at the end of 2012 in North Central province is 393,955 from 78,791 number of small water supply connections.

For ground water activities 85 no of tube wells were constructed in 17 DS Divisions in Anuradhapura district under Deyata Kirula development project. Furthermore 50 numbers of hand pumps and 2 numbers of tube wells were rehabilitated. 115 feasibility studies were carried out for tube wells and 52 no of geological investigation were perform.

When considering O&M work, NRW reduction activities were carried out including meter replacements, meter rectifications and distribution improvements. These work contributed to reduce NRW to 19%. At the end of the year 2012 piped water connected coverage is 32 % with 23.5 hrs of water availability, staff/ 1000 connection is 4.30 and operating ratio is 0.74.

At the end of 2012 Rs. 627 million worth of construction activities have carried out with the financial progress of 87 % and physical progress of 93 %.



*Thanthirimale Water Supply Project*

### **North Western**

Maho WSS was commissioned in March 2012 while Ibbagamuwa WSS, Dambadiniya-Giriulla WSS and Wariyapola TP were commenced. The consumer relation center construction for Chillaw was completed. During the year 132 km length pipelines were in-filled. Rain water harvesting programme (RWH) was conducted throughout the year. accordingly 154 RWH tanks were constructed in polpetigama area for chronic kidney disease patients. Water quality monitoring is being continued. Water quality issues arose in Kurunagala and Puttalam districts and the problems were sorted out.

Implementation of one Pilot Project at Polgahawela contributed to reduce the NRW from 15.4% to 14.4%. New project proposals were prepared to expand the water supply coverage in the province, consequently preparation of pre-feasibility report for Ganewaththa-Hiripitiya and Pallama-Arachchikattuwa schemes were implemented. Daduru oya intergrated WSP and Galgamuwa WSP obtained Cabinet approval while Puttalam RWS, Kalpitiya and Polgahawela-Alawwa WSPs obtained Board Approval for TEC revision.

Project for water supply to the Coconut Research Institute, Lunuwila and to the Puttalam Industrial Park works were completed. The works in Mahawa, Nikaweratiya WSS, Dambadeniya WSS and Karukkapanne WSS were almost completed and the balance works are in progress. Ibbagamuwa WSS is in progress and construction of gate, fence and intake site

and road crossing for pumping main across Thalagodapitiya-Ibbagamuwa WSS were achieved 100% physical progress.

### Central

ISO-9001 /SLS ISO 9001 certificate was obtained for the Katugastota Greater Kandy Water Treatment Plant from February. After the rehabilitation of the existing laboratory the “Sarasavi Uyana” laboratory was opened by the DGM (RSC-C) in October 2012. Rehabilitation of the water supply system to Dalada Maligawa was implemented by NWSDB of which estimated cost was Rs. 19 million.

The Stage II of Greater Kandy Water Supply Project Phase I was opened by the Hon. Minister of Water Supply & Drainage and his Excellency the Ambassador of Japan in Sri Lanka. Hanthana, Thelambugahawatta, Yatiwala and Gririhagama are the areas to be benefited by GKWSP – Phase I, Stage II. NRW reduction activities were implemented throughout the year such as relocation and sealing of benefited house connections for provision of new service connections, relaying pipes, bulk meter installation at reservoir sites, pressure management in the distribution system and mapping. Certain NRW reduction activities and energy saving activities were also carried out in the RSC Central.

Medical instruments worth of Rs. 75,000/= were donated to the Peradeniya hospital in August of 2012. Number of awareness programmes were conducted during the year in regarding physical fitness, non-communal disease, etc.

Twelve number of project proposals has been prepared and 11 out of them were approved by PAC. Rural water supply and sanitation activities were done at Yatawatta, Ukuwela and Matale Pradeshiya Sabha divisions. Rain Water harvesting was introduced to some schools around Kandy region.

Pipelines were extended up to a total length of 86 km. Physical progress of most of the capital funded water supply projects have exceeded 70%.

### Sabaragamuwa

Improvements were made to the treatment plant and intake at Mawanella. Developments launched in Kegalle district were Rambukkana Water Distribution Network, pumping main shifting at Puwakdeniya, construction of six rural water supply schemes and construction of ferrocement water tanks.

Fixing Gas Chlorinators for Ratnapura, Balangoda and Eheliyagoda water supply schemes were completed in Ratnapura district. Construction of Sudugala water tank and Rain Water Harvesting tank at Balangoda were completed during the year 2012 as well.

Pipelines were extended in Kegalle district of 58 km in length and in Ratnapura district of 7 km. NRW reduction activities were implemented in the RSC including distribution improvement at Balangoda WSS and Eheliyagoda WSS, replacement of pipelines at Good Shed road, construction of valve chambers in Embilipitiya WSS, Ratnapura New Water Town WSS and Balangoda WSS.

Raw water quality problem arose in Eheliyagoda WSS and water shortage problem was encountered in the Hemmathagama and Aranayaka. Implementation of “5S programme” was launched in the Ratnapura Regional Office and tree planting programme in Kiridiella and Uttapitiya, Promotion of water harvesting systems were carried out right through the year 2012.



Udawalawa WSS

### Uva

During the year regional development activities were continued importantly Energy Saving activities in Bandarawela region, water treatment plant improvements in Monaragala Region and pipe line extension works. Thirteen UNICEF funded projects were in progress and another nine projects had been ready to be awarded under UNICEF funds for 2013.

Improvement of Welangala WSS and Sihapura WSS were completed under RWS projects and another six RWS projects are in progress. Pipeline extensions were done in Bandarawela and Monaragala Regions of a length 9.73 km and 65km respectively.

In Hagurankethyaya area chronic kidney diseases identified and 10 number of 1000 l plastic tanks were provided. Three plantation activities were carried out at the catchment areas of Marathota Haliella, Magiyapura Haputhala and Rohamton Diyatalawa. Awareness programmes for school children were conducted for Katugaha Vidyalyaya, Haliela.

Improvement works for Treatment Plants importantly as back wash system improvements, installation of chlorinators, filter media replacement, renovation of pump house and construction of caretaker quarters were implemented in Monaragala WSS, Okkampitiya WSS, Thanamalwila WSS, Bibila WSS, Sewanagala WSS, Medagama WSS and Siyambalanduwa WSS.

NRW reduction activities were conducted in Monaragala area including repairs of water retaining structures, repairing valves, replacement of pipes and night leak survey.

Number of store improvement works were completed and seven RWS projects are awaited for finalising fund allocations.

### **Northern**

During the year many NRW reduction activities were taken place in all three regions. The defective water meters were replaced and leakage problems were attended immediately in Vavuniya region. Pipe re-laying activities were conducted in Jaffna region using RDA road widening activities. Replacement of effective valves and locating illegal connections were some of the NRW reduction activities in Mannar region.

Not only NRW reduction activities but energy saving activities also were taken place in Northern part such as changing of existing tariff system of no. 07 and no. 08 pump houses, changing pumps and fixing transformers at intakes. Water pollution and lack of water during dry season were some issues in Northern RSC.

Some productivity improvement activities such as training programmes and workshops also conducted during the year 2012. Rural water supply and sanitation activities such as installation of WTP in Pudukulankulam and construction of tube wells in Kilinochchi, Mulathivu, Mannar and Vavuniya were carried out.

Pipeline extension works were carried out for 5 km and 32 km in Jaffna and Mannar regions respectively. Special events also were taken place in Northern RSC. Pvu pipe training was held in this RSC.

### **Eastern**

An awareness programme to expedite providing new connections was conducted in Batticaloa region in the year 2012. Mobile service to expedite new connections in Kattankudy WSS was conducted too in Batticaloa region. NRW reduction activities were implemented in Ampara, Akkaraipattu, Batticaloa and Trincomalee regions. NRW reduction activities carried out during 2012. Rectification of existing house connections, disconnection of existing distribution system, replacing existing pipes, fittings, specials & valves, raising of valve chamber, defective meter replacement, connection transferring, construction of bulk meter chambers and relaying of pipe lines were the important part bring up as stated.

Energy saving activities were carried out in these regions replacing old bulbs by energy saving CFL bulbs, energy auditing and analysing, observing the BPS and plant's energy increment of KVA, instructions to all OICs about consuming only the minimum required electricity and

shifting of pumping hours, Similarly establishment of commercial office, cashier point and account section in Batticaloa region were completed.

Rural water supply activities were conducted in the year 2012 as well. Establishing databases, implementing of NEP-WASH project, implementing of WSS under Dayatakirula Programme and implementing sanitation programme under SACOSAN IV were carried out in Trincomalee region. Water supplied through bowsers to some CKD areas and construction of rural WSS in Padavisiripura, Morawewa and Gomarankadawala are some important accomplishments in rural water supply sector.

Pipeline line extensions of length 69 km were completed in Eastern province where as 11 km in Ampara region and 57 km in Batticaloa region. At the same time Dehiattakandiya WSS, Kantale WSS and Tampalakamam WSS were completed under capital budget. Under the rehabilitation activities stores for regional office Ground Water office and rehabilitation of staff quarters at Ampara, construction of OIC office at Batticaloa, providing new connections in Batticaloa area, construction of stores in Batticaloa and some activities in Trincomalee region were implemented.

Construction of regional office at Batticaloa, construction of DE & OIC office at Batticaloa WSS and Abandoning of old distribution system and pumping station and inter connection of ADB 4th project are the some of important development activities carried out in Eastern province.

## ▶ Report of the Audit and Management Committee

“Matters arisen from the Auditor General's Report 2010 and 2011 were followed up during this year.”

The Audit & Management Committee functions to extend its assistance to the Board in terms of Public Finance Circular No. PF/PE/4 dated 11.01.2000, by reviewing, evaluating decisions and making recommendations to ensure fair presentation of financial statements and robust system of internal control.

During the year 2012, the Committee consisted of the following Members.

- |     |  |            |
|-----|--|------------|
| 01. | Mr. A.K. Seneviratne<br>Board Member                                       | - Chairman |
| 02. | Mr. K.D. Gamini Gunaratne<br>Vice Chairman                                 | - Member   |
| 03. | Mr. K.L.L. Premanath<br>General Manager                                    | - Member   |
| 04. | Mr. H. Ariyasena<br>Deputy General Manager<br>(Personnel & Administration) | - Member   |
| 05. | Mr. D. Thotawatte<br>Deputy General Manager (Finance)                      | - Member   |
| 06. | Mr. R. M. A. S. Weerasena<br>Deputy General Manager (Internal Audit)       | - Member   |
| 07. | Mr. K.K. Chandrasiri<br>Secretary  |            |

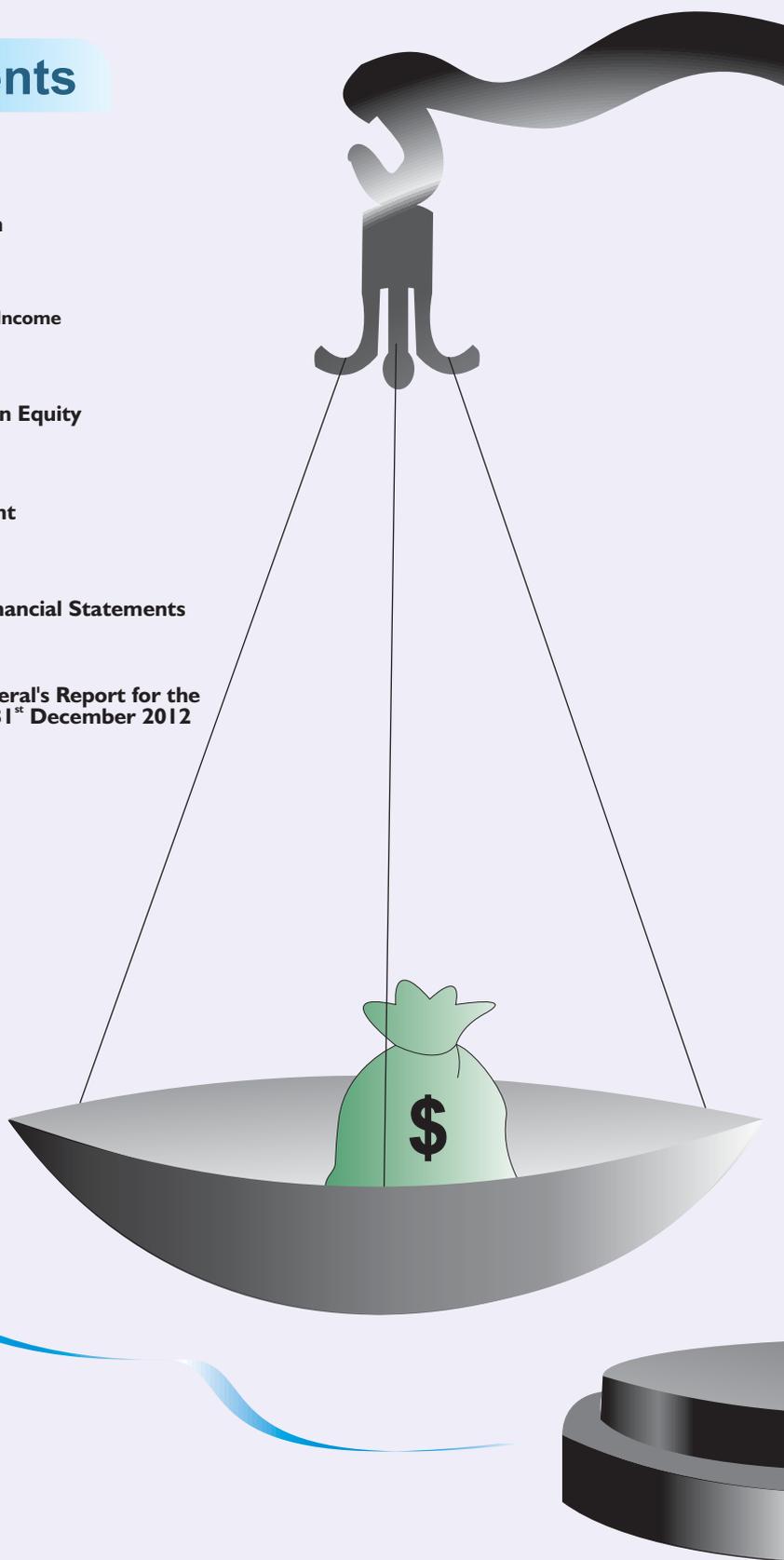
The Audit & Management Committee met on 07 occasions during the year 2012.

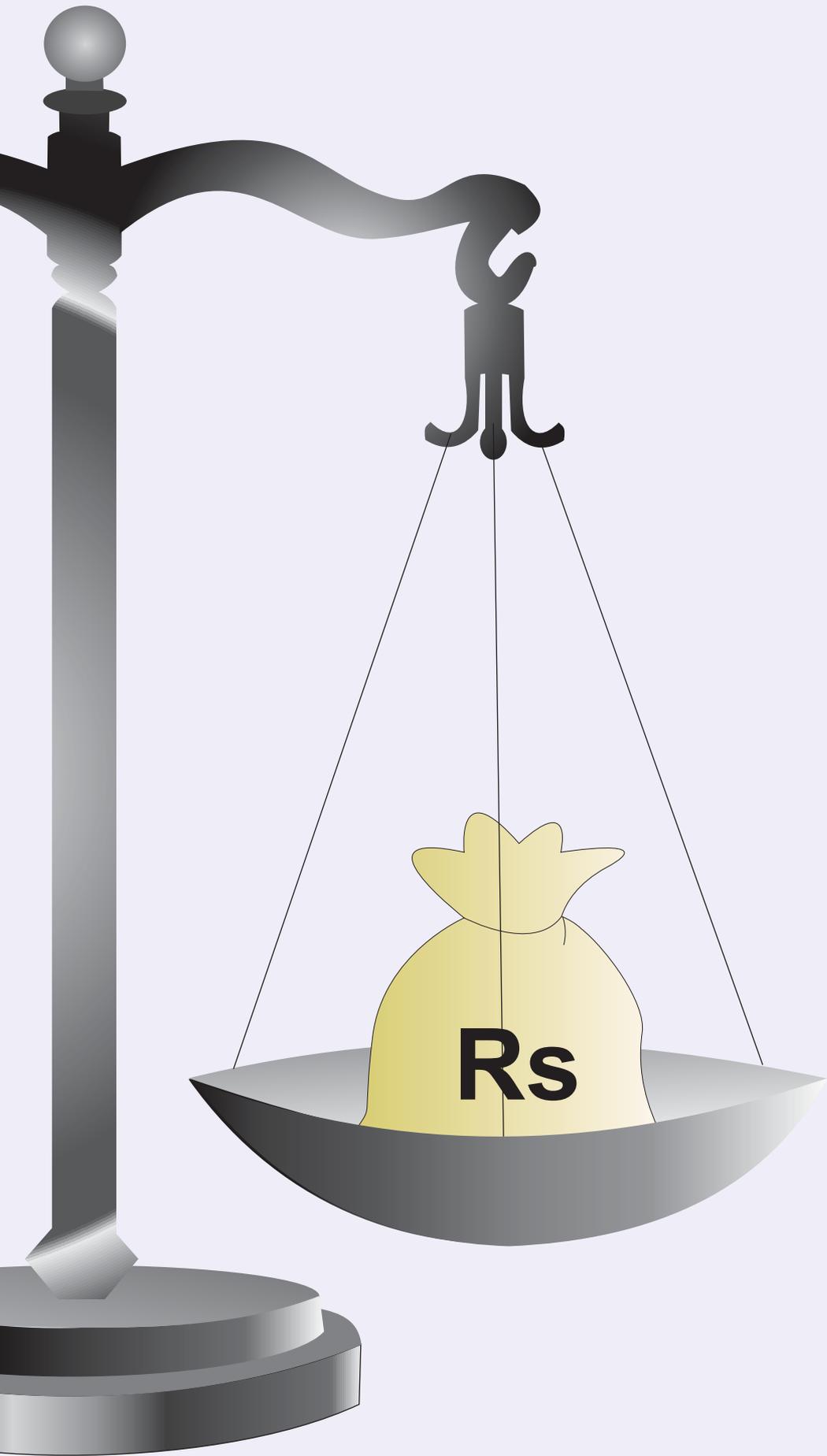
Matters arisen from the Auditor General's Report 2010 and 2011 were followed up during this year. Accordingly, the Committee focused its attention on the following:

- Reconciliation of 60% of non-operating ledger balances, based on the matters pointed out by the Auditor General.
- Implementation of establishment of island-wide on-line stores management system in the NWSDB.
- Streamlining the stock verification process
- Reviewing the quarterly reports submitted to the Committee in accordance with the Internal Audit Plan of the NWSDB
- Analyzing of financial statements for the period from 2006 to 2010

# Financial Statements

- 74** Statement of Financial Position
- 75** Statement of Comprehensive Income
- 76** Statement of Changes in Equity
- 77** Cash Flow Statement
- 78** Notes to the Financial Statements
- 105** Auditor General's Report for the year ended 31<sup>st</sup> December 2012



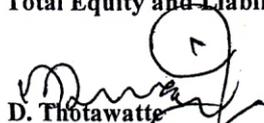


# National Water Supply And Drainage Board

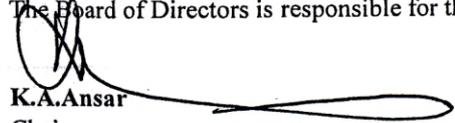
## STATEMENT OF FINANCIAL POSITION

As at 31 December 2012

		2012	2011	2010
		<u>Rs.</u>	<u>Rs.</u>	<u>Rs.</u>
<b>Assets</b>				
<b>Non- Current Assets</b>				
	Notes			
Property ,Plant & Equipments	31	104,138,121,929	84,358,595,809	73,488,501,348
Intangible Assets	17	153,038,825	204,051,766	255,064,708
Capital Work in Progress	16	103,647,170,880	93,616,616,133	75,122,041,709
Other Financial assets	18	37,818,865	47,021,257	65,483,233
<b>Total Non-Current Assets</b>		<u>207,976,150,498</u>	<u>178,226,284,966</u>	<u>148,931,090,998</u>
<b>Current Assets</b>				
Non Operating Assets		117,763,828	129,519,607	186,528,287
Inventories	19	3,193,201,350	2,942,958,858	2,888,139,263
Trade & Other Receivables	20	4,930,179,819	4,442,510,374	3,953,334,109
Deposits & Advances	21	3,496,450,351	4,456,408,204	5,573,160,188
Investments	22	12,341,312	892,090,141	357,413,810
Cash & Cash Equivalents	23	1,874,266,329	810,401,456	1,415,660,310
<b>Total Current Assets</b>		<u>13,624,202,989</u>	<u>13,673,888,639</u>	<u>14,374,235,967</u>
<b>Total Assets</b>		<u>221,600,353,487</u>	<u>191,900,173,605</u>	<u>163,305,326,963</u>
<b>Equity and Liabilities</b>				
<b>Equity</b>				
Assets taken over from Government Dept.	24	185,480,387	185,480,387	185,480,387
Government Grants	25	77,931,820,155	69,440,023,265	62,617,514,691
Capital Grants	26	116,361,732,845	94,049,872,568	78,517,957,742
Staff Welfare Fund	27	14,415,579	13,935,577	13,468,272
Retained Earnings		<u>(15,412,753,303)</u>	<u>(12,733,326,604)</u>	<u>(12,920,392,765)</u>
<b>Total Equity</b>		<u>179,080,695,663</u>	<u>150,955,985,193</u>	<u>128,414,028,327</u>
<b>Non-Current Liabilities</b>				
Loan Payable	28	29,011,510,716	27,838,903,108	23,070,625,176
Other Deferred Liabilities	29	2,152,080,886	2,528,998,643	2,485,297,289
<b>Total Non-Current Liabilities</b>		<u>31,163,591,602</u>	<u>30,367,901,751</u>	<u>25,555,922,465</u>
<b>Current Liabilities</b>				
Trade & Other Payables	30	4,923,021,889	5,290,853,161	3,654,779,563
Loan Capital Payable		3,592,784,161	2,687,799,521	2,362,323,996
Loan Interest Payable		2,768,276,863	2,464,625,111	3,157,126,784
Non Operating Liabilities		71,983,310	133,008,868	161,145,829
<b>Total Current Liabilities</b>		<u>11,356,066,223</u>	<u>10,576,286,661</u>	<u>9,335,376,172</u>
<b>Total Equity and Liabilities</b>		<u>221,600,353,487</u>	<u>191,900,173,605</u>	<u>163,305,326,963</u>

  
D. Thotawatte  
Addl.G.M.(Finance)

The Board of Directors is responsible for the preparation and presentation of these financial statements

  
K.A. Ansar  
Chairman

  
B.W.R. Balasuriya  
General Manager

Accounting Policies & Notes from pages 6 to 31 form an integral part of these Financial Statements.  
Colombo

National Water Supply And Drainage Board				
STATEMENT OF COMPREHENSIVE INCOME				
Year ended 31 December 2012				
		Budget 2012	Actual 2012	Actual 2011
	Notes	Rs.	Rs.	Rs.
Revenue	8	14,759,465,860	14,344,205,499	12,609,703,240
Cost of Sales	9	(10,224,592,139)	(8,821,797,602)	(7,470,490,082)
<b>Gross Profit</b>		4,534,873,721	5,522,407,897	5,139,213,158
Other Operating Income and Gains	10	1,384,558,140	1,586,511,700	1,318,540,370
Administrative Expenses	11	(5,126,575,861)	(5,848,136,492)	(4,680,820,504)
Other Operating Expenses	12	(432,894,000)	(54,474,810)	(227,425,798)
<b>Operating Profit / (Loss)</b>		359,962,000	1,206,308,295	1,549,507,226
Finance Income	14	100,000,000	213,955,983	131,257,102
Finance Cost	13	(2,100,000,000)	(1,013,244,742)	(943,355,146)
<b>Profit / (Loss) before tax</b>		(1,640,038,000)	407,019,536	737,409,181
Taxation	15	(38,000,000)	(40,217,024)	(53,055,544)
<b>Profit / (Loss) for the Year</b>		(1,678,038,000)	366,802,512	684,353,637
<b>Other Comprehensive Income for the Year, Net of Taxes</b>		-	-	-
<b>Total Comprehensive Income for the Year</b>		(1,678,038,000)	366,802,512	684,353,637
Accounting Policies & Notes from pages 6 to 31 form an integral part of these Financial Statements.				

National Water Supply And Drainage Board  
STATEMENT OF CHANGES IN EQUITY

Year ended 31 December 2012

	Assets from Government Departments Rs.	Govt Grants Rs.	Capital grants Rs.	Staff Welfare Fund Rs.	Accumulated Profit/Loss	Total Rs.
<b>Balance as at 1 January 2011</b>	185,480,387	62,617,514,691	78,517,957,742	13,468,272	(12,920,392,765)	128,414,028,327
Net profit for the year	-	-	-	-	684,353,637	684,353,637
Receipts / Transfers during the year	-	6,822,508,574	15,531,914,826	-	-	22,354,423,400
Transfers to Staff welfare fund	-	-	-	467,305.23	(467,305)	-
Prior Year Adjustments (Salary arreas 2009)	-	-	-	-	(440,554,765)	(440,554,765)
Prior Year Adjustments (Ministry Advance write off)	-	-	-	-	(55,799,238)	(55,799,238)
Disposal Adjustment	-	-	-	-	(466,168)	(466,168)
<b>Balance as at 31 December 2011</b>	<b>185,480,387</b>	<b>69,440,023,265</b>	<b>94,049,872,568</b>	<b>13,935,577</b>	<b>- 12,733,326,604</b>	<b>150,955,985,193</b>
Net profit for the year	-	-	-	-	366,802,512	366,802,512
Receipts / Transfers during the year	-	8,491,796,890	22,311,860,277	-	-	30,803,657,167
Transfers to Staff welfare fund	-	-	-	480,002	(480,002)	-
Prior Year Adjustments (Salary arreas 2009)	-	-	-	-	(37,642,777)	(37,642,777)
Prior year adj. (GL code 680 error correction)	-	-	-	-	2,419,568	2,419,568
Prior year adjustment (Sewerage)	-	-	-	-	(41,293,375)	(41,293,375)
PPE Adjustment	-	-	-	-	(3,777,509,200)	(3,777,509,200)
Disposal Adjustment	-	-	-	-	(3,050,766)	(3,050,766)
Non conversion adjustments	-	-	-	-	811,327,342	811,327,342
<b>Balances as at 31 December 2012</b>	<b>185,480,387</b>	<b>77,931,820,155</b>	<b>116,361,732,845</b>	<b>14,415,579</b>	<b>- 15,412,753,303</b>	<b>179,080,695,663</b>

Accounting Policies & Notes from pages 6 to 31 form an integral part of these Financial Statements.

## National Water Supply And Drainage Board

### CASH FLOW STATEMENT

Year ended 31 December 2012

	<b>2012</b>	<b>2011</b>
	<u>Rs.</u>	<u>Rs.</u>
<b>Cash Flows From / (Used in) Operating Activities</b>		
Net Profit/(Loss) before Tax	407,019,536	737,409,181
<i>Adjustments for</i>		
Interest Income	(213,955,983)	(131,257,102)
Profit/Loss on disposal of Fixed Assets	3,689,147	1,010,820
Depreciation	2,026,525,175	1,997,682,527
Revaluation loss	776,836,147	474,261,491
Grant amortization against depreciation	(336,788,311)	(277,796,256)
Retiring gratuity provision	(146,349,076)	216,756,879
Prior Year Adjustments	(76,516,584)	(496,354,003)
Non conversion adjustment	16,537,516	(466,168)
Interest Expense	<u>1,013,244,742</u>	<u>943,355,146</u>
Operating Profit before Working Capital Changes	3,470,242,308	3,464,602,516
(Increase)/Decrease in Inventories	(250,242,493)	(54,819,595)
(Increase)/Decrease in Debtors, Rece'bles & Deposits	509,984,138	685,915,163
Increase/(Decrease) in Creditors & Provisions	<u>(463,739,399)</u>	<u>1,615,810,241</u>
Cash Generated from Operations	3,266,244,555	5,711,508,326
Tax Paid	(40,217,024)	(53,055,544)
Gratuity Paid	<u>(195,686,112)</u>	<u>(180,929,130)</u>
<b>Net Cash from Operating Activities</b>	<b><u>3,030,341,418</u></b>	<b><u>5,477,523,652</u></b>
<b>Cash Flows from/(used) in Investing Activities</b>		
Investments in Fixed Assets & Work-In-Progress	(36,129,768,342)	(31,841,838,674)
Withdrawal of other financial assets	9,202,392	18,461,976
Sale proceeds for disposal assets	8,964,140	4,214,950
Investment Income Received	188,016,031	129,926,338
(Investment) / Withdrawal of Investments	<u>879,748,829</u>	<u>(534,676,331)</u>
<b>Net Cash Flows used in Investing Activities</b>	<b><u>(35,043,836,950)</u></b>	<b><u>(32,223,911,741)</u></b>
<b>Cash Flows from/(used in) Financing Activities</b>		
Government Grant during the Period	9,906,397,371	8,193,233,405
Capital Grant during the period	22,623,615,804	15,786,177,156
New Loans	2,665,416,044	4,768,277,932
Loan Repayments	(93,088,221)	325,475,525
Interest Paid	(686,425,837)	(1,635,856,820)
VAT payments through treasury funds	<u>(1,338,554,755)</u>	<u>(1,296,177,963)</u>
	<u>33,077,360,405</u>	<u>26,141,129,236</u>
<b>Net Increase in Cash &amp; Cash Equivalents</b>	1,063,864,873	(605,258,854)
Cash & Cash Equivalents at the beginning of the year	<u>810,401,456</u>	<u>1,415,660,310</u>
<b>Cash &amp; Cash Equivalents at the end of the period</b>	<b><u>1,874,266,329</u></b>	<b><u>810,401,456</u></b>

Accounting Policies & Notes from pages 6 to 31 form an integral part of these Financial Statements.

NOTES TO THE FINANCIAL STATEMENTS  
Year ended 31 December 2012

**NATIONAL WATER SUPPLY AND DRAINAGE BOARD**

**NOTES TO THE FINANCIAL STATEMENTS**

**31 DECEMBER 2012**

NOTES TO THE FINANCIAL STATEMENTS  
Year ended 31 December 2012

**CORPORATE INFORMATION**

**1.1 General**

National Water Supply & Drainage Board is a statutory board enacted by the Parliament under the National Water Supply & Drainage Board Law No. 2 of 1974. The registered office of the Board is located at Galle Road, Ratmalana, and the principal place of business is situated at the same location.

National Water Supply & Drainage Board (NWS&DB) is an institution that is under the purview of Ministry of Water Supply & Drainage

**1.2 Principle activities**

During the year, the principal activity of the Board is to produce and sell treated drinking water to the community.

The objectives of the National Water Supply & Drainage Board are development of the treated drinking water throughout the country and build a better Sri Lanka.

**2. BASIS OF PREPARATION**

**2.1 Statement of Compliance**

The Financial Statements have been prepared in accordance with Sri Lanka Accounting Standards (SLFRS/LKAS) as issued by the Institute of Chartered Accountants of Sri Lanka.

For all periods up to and including the year ended 31<sup>st</sup> December 2011, the NWS&DB prepared its financial statements in accordance with Sri Lanka Accounting Standards (SLAS). These financial statements for the year ended 31<sup>st</sup> December 2012 are the first the NWS&DB has prepared in accordance with the new Sri Lanka Accounting Standards (SLFRS/LKAS).

Refer note 7 for the information on how NWS&DB adopted SLFRS/LKAS.

**2.2 Basis of Measurement**

The Financial Statements have been prepared on the historical cost basis. The NWS&DB financial statements are presented in Rupees and all values are rounded to the nearest thousand (Rs.000), except when otherwise indicated.

NOTES TO THE FINANCIAL STATEMENTS  
Year ended 31 December 2012

**3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**3.1 Property Plant and Equipment**

Property, plant and equipment is stated at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such cost includes the cost of replacing part of the property, plant and equipment and borrowing costs for long-term construction projects if the recognition criteria are met. When significant parts of property, plant and equipment are required to be replaced at intervals, NWS&DB recognises such parts as individual assets with specific useful lives and depreciates them accordingly. Likewise, when a major inspection is performed, its cost is recognised in the carrying amount of the plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognised in profit or loss as incurred.

The present value of the expected cost for the decommissioning of an asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met.

**3.1.1 Depreciation**

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

<b>Plant Property and Equipment</b>	<b>Rate</b>
Building & Structures	1.67% - 2%
Plant & equipment pumping treatment	5%
Service & Bulk water meter	10%
Transmission & Distribution:	1.67%
Equipments	10%
Furniture & fittings	10%
Computers Peripherals & Mobile Phones	20% - 33.3%
Motor Vehicles	10% - 20%
Lease hold Vehicles	14.3%

**3.1.2 Investment Property**

When the use of a property changes from owner-occupied to another party is classified as investment Property and the Investment Property is measured at cost less accumulated depreciation.

**3.1.3 Capital Work In Progress**

Capital expenses incurred during the year, which are not capitalized as at the balance sheet date are shown as Capital work in progress, whilst the capital assets which have been capitalized during the year and put to use have been transferred to Property Plant & Equipment.

**3.1.4 Leases**

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at the inception date, whether fulfillment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset, even if that right is not explicitly specified in an arrangement.

**3.1.5 Intangible Assets**

Intangible assets acquired separately are measured on initial recognition at cost. Following initial recognition, intangible assets are carried at cost less accumulated amortization and accumulated impairment losses, if any. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and expenditure is reflected in the income statement in the year in which the expenditure is incurred.

NOTES TO THE FINANCIAL STATEMENTS  
Year ended 31 December 2012

**3.1.6 Research and development costs**

Research costs are expensed as incurred. Development expenditures on an individual project are recognized as an intangible asset when NWS&DB can demonstrate:

- The technical feasibility of completing the intangible asset so that the asset will be available for use or sale
- Its intention to complete and its ability to use or sell the asset
- How the asset will generate future economic benefits
- The availability of resources to complete the asset
- The ability to measure reliably the expenditure during development

Following initial recognition of the development expenditure as an asset, the asset is carried at cost less any accumulated amortisation and accumulated impairment losses. Amortisation of the asset begins when development is complete and the asset is available for use. It is amortized over the period of expected future benefit. During the period of development, the asset is tested for impairment annually.

**3.1.7 Impairment of Non-Financial Assets**

The NWS&DB assesses at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the NWS&DB estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating units (CGU) fair value less costs to sell and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, recent market transactions are taken into account, if available. If no such transactions can be identified, an appropriate valuation model is used.

**3.2.1 Inventories**

Inventories are recognized at cost and net realizable value whichever is lower after making due allowance for obsolete and slow moving items which are valued at 'First In First Out' basis. Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

**Measurement of inventories**

**3.2.2 Cost of Inventories**

**Raw Materials**

Cost of purchases together with any incidental expenses.

**Other stocks**

Cost is arrived at weighted average basis.

NOTES TO THE FINANCIAL STATEMENTS  
Year ended 31 December 2012

**3.3. Cash and Cash Equivalents**

Cash and cash equivalents comprise cash in hand and bank balances and short term investment, net of outstanding bank overdrafts if any

**4. LIABILITIES, PROVISIONS AND EQUITY**

**4.1. Retirement Benefit Obligation**

**4.1.1 Retirement Benefit Obligations (LKAS 19)**

**a) Defined Benefit Plan – Gratuity**

Provision has been made for retiring gratuity from the first year of service for all employees, in conformity with Sri Lanka Accounting Standard No. 19 (LKAS 19).

**b) Retirement Benefit Cost**

NWSDB operates a defined benefit pension plan. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit method. Actuarial gains and losses for the defined benefit plan are recognized in full in the period in which they occur in other comprehensive income. Such actuarial gains and losses are also immediately recognized in retained earnings and are not reclassified to profit or loss in subsequent periods.

Unvested past service costs are recognized as an expense on a straight line basis over the average period until the benefits become vested. Past service costs are recognized immediately if the benefits have already vested immediately following the introduction of, or changes to, a pension plan.

The defined benefit asset or liability comprises the present value of the defined benefit obligation (using a discount rate based on high quality corporate bonds), less unrecognized past service costs and less the fair value of plan assets out of which the obligations are to be settled. Plan assets are assets that are held by a long-term employee benefit fund or qualifying insurance policies. Plan assets are not available to the creditors of the NWSDB, nor can they be paid directly to the NWSDB. The value of any defined benefit asset recognized is restricted to the sum of any unrecognized past service costs and the present value of any economic benefits available in the form of refunds from the plan or reductions in the future contributions to the plan.

**c) Defined Contribution Plans- EPF & ETF**

Employees are eligible for Employees' Provident Fund Contributions and Employees' Trust Fund Contributions in line with respective Statutes and Regulations. The Board contributes 12% and 3% of gross emoluments of employees to EPF and ETF respectively.

**4.2 Provisions**

**General**

Provisions are recognised when NWS&DB has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. When NWS&DB expects some or all of a provision to be reimbursed, for example, under an insurance contract, the reimbursement is

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

recognized as a separate asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the income statement net of any reimbursement.

### 4.3 Government grants

Government grants are recognised where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, which it is intended to compensate, are expensed. When the grant relates to an asset, it is recognised as income in equal amounts over the expected useful life of the related asset.

When NWS&DB receives non-monetary grants, the asset and the grant are recorded at nominal amounts and released to profit or loss over the expected useful life in a pattern of consumption of the benefit of the underlying asset by equal annual installments. When loans or similar assistance are provided by governments or related institutions, with an interest rate below the current applicable market rate, the effect of this favorable interest is regarded as a government grant.

## 5. INCOME STATEMENT

For the purpose of presentation of the Income Statement, the function of expenses method is adopted, as it represents fairly the elements of NWS&DB performance.

### 5.1.1 Revenue Recognition

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the NWS&DB and the revenue can be reliably measured, regardless of when the payment is being made. Revenue is measured at the fair value of the consideration received or receivable taking into account contractually defined terms of payment.

The following specific recognition criteria must also be met before revenue is recognised:

#### Sale of goods

Revenue from the sale of goods is recognised when the significant risks and rewards of ownership of the goods have passed to the buyer, usually on delivery of the goods.

#### Sale of Water

Revenue from sale of water is recognized according to the number of consumed unit within 30 days of time by the consumer, when the meters are read and when bills are processed within the system.

#### Other Income

Other income is recognised on an accrual basis.

#### Interest income

For all financial instruments measured at amortised cost and interest bearing financial assets classified as available for sale, interest income or expense is recorded using the effective interest rate (EIR), which is the rate that exactly discounts the estimated future cash payments or receipts through the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income is included in finance income in the income statement.

NOTES TO THE FINANCIAL STATEMENTS  
Year ended 31 December 2012

**Rechargeable Works**

Revenue from fixed price construction contracts is recognized on the percentage of completion method, measured by the work done of the contract.

**5.1.2 Expenses**

All expenditures incurred in the running of the business have been charged to income in arriving at the profit for the year. Repairs and renewals are charged to profit and loss in the year in which the expenditure is incurred.

**5.2 Deferred tax**

Deferred tax is provided using the liability method on temporary differences between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date. Deferred tax liabilities are recognised for all taxable temporary differences, except:

When the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

Deferred tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilised, except:

When the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognised only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognised outside profit or loss is recognised outside profit or loss. Deferred tax items are recognised in correlation to the underlying transaction either in other comprehensive income or directly in equity.

Deferred tax assets and deferred tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

NOTES TO THE FINANCIAL STATEMENTS  
Year ended 31 December 2012

**6. FINANCIAL INSTRUMENTS- INITIAL RECOGNITION AND SUBSEQUENT MEASUREMENT**

**6.1 Financial asset**

**6.1.1 Initial recognition and measurement**

Financial assets within the scope of LKAS 39 are classified as financial assets at fair value through profit or loss, loans and receivables, held-to-maturity investments and available-for-sale financial assets, as appropriate and determine the classification of its financial assets at initial recognition.

All financial assets are recognized initially at fair value plus, in the case of assets not at fair value through profit or loss, directly attributable transaction costs.

The financial assets of NWS&DB include cash and short term investment, trade and other receivables, staff loans and other receivables.

**6.1.2 Subsequent measurement**

The subsequent measurement of financial assets depends on their classification as follows

**6.1.2.1 Financial assets at fair value through profit or loss**

Financial assets at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition at fair value through profit or loss. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. NWS&DB did not have any financial assets at fair value through profit or loss during the years ended 31 December 2012 and 2011.

**6.1.2.2 Loans and receivables**

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. After initial measurement, such financial assets are subsequently measured at amortized cost using the effective interest rate method (EIR), less impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the income statement. The losses arising from impairment are recognized in the income statement in finance cost.

**6.1.2.3 Held-to-maturity investments**

Non-derivative financial assets with fixed or determinable payments and fixed maturities are classified as held to- maturity when the NWS&DB has the positive intention and ability to hold it to maturity. After initial measurement, held-to-maturity investments are measured at amortised cost using the effective interest method, less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included in finance income in the income statement. The losses arising from impairment are recognised as finance cost in the income statement in finance cost. NWS&DB did not have any held –to- maturity investments during the years ended 31 December 2013 and 2012.

**6.1.2.4 Available-for-sale financial investments**

Available-for-sale financial investments include equity and debt securities. Equity investments classified as available for- sale are those, which are neither classified as held for trading nor designated at fair value through profit or loss. Debt securities in this category are those which are intended to be held for an indefinite period of time and which may be sold in response to needs for liquidity or in response to changes in the market conditions.

NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

After initial measurement, available-for-sale financial investments are subsequently measured at fair value with unrealized gains or losses recognised as other comprehensive income in the available-for-sale reserve until the investment is derecognized. NWS&DB did not have any available for –sale financial investments during the years ended 31 December 2013 and 2012.

**6.1.2.5 Derecognition**

A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognized when,

- i) The rights to receive cash flows from the asset have expired
- ii) NWS&DB has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a ‘pass-through’ arrangement; and either
  - (a) NWS&DB has transferred substantially all the risks and rewards of the asset, or
  - (b) NWS&DB has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

**6.1.2.6 Impairment of financial assets**

The NWS&DB assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated.

Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency, the probability that they will enter bankruptcy or other financial reorganization and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic conditions that correlate with defaults.

**6.1.2.7 Financial assets carried at amortized cost**

For financial assets carried at amortized cost, the NWS&DB first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the NWS&DB determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognised are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the assets carrying amount and the present value of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset’s original effective interest rate.

The NWS&DB performed specific impairment for each debtor categories during the years 2013 and 2012

**6.2 Financial Liabilities**

**Initial recognition and measurement**

Financial liabilities within the scope of LKAS 39 are classified as financial liabilities at fair value through profit or loss, at amortised cost, or as derivatives designated as hedging instruments in an effective hedge, as appropriate. NWS&DB determines the classification of its financial liabilities at initial recognition.

NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings, carried at amortised cost. This includes directly attributable transaction costs. NWS&DB's financial liabilities include trade and other payables.

**Subsequent measurement**

Subsequent measurements of financial liabilities are at amortised cost.

**Derecognition**

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires.

**7. FIRST- TIME ADOPTION OF SLAS (SLFRS/LKAS)**

These financial statements, for the year ended 31 December 2012, are the first NWS&DB has prepared in accordance with SLAS comprising SLFRS/LKAS. For the periods up to and including year ended 31 December 2011, the NWS&DB prepared its financial statements in accordance with previous Sri Lanka Accounting Standards.

Accordingly, the NWS&DB has prepared financial statements which comply with SLAS comprising SLFRS/LKAS applicable for the periods beginning on or after 01 January 2012, together with the comparative period data as at and for the year ended 31 December 2011, as described in the accounting policies.

In preparing these financial statements, the NWS&DB's opening statement of financial position was prepared as at 1 January 2011, the NWS&DB's date of transition to SLAS comprising SLFRS/LKAS. This note explains the principle adjustments made by the NWS&DB in restating its SLAS statement of financial position as at 01 January 2011 and its previously published SLAS financial statements as at and for the year ended 31 December 2011.

**Exemptions Applied**

SLFRS 1 First-Time Adoption of Sri Lanka Accounting Standards allows first-time adopters certain exemptions from the retrospective application of certain SLAS (SLFRS/LKAS).

The NWS&DB has applied the following exemption:

Certain Property Plant & Equipment were carried in the statement of financial position prepared in accordance with the previous SLAS on revaluation model. The NWS&DB elected to regard revaluations done on dates given in Note 33 as deemed cost at the date of the revaluation since they were broadly comparable to Fair value.

National Water Supply And Drainage Board  
NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

7. FIRST-TIME ADOPTION OF LKAS AND SLFRSs (Contd...)

7.1 Reconciliation of Balance Sheet as at 01 January 2011 (Beginning of the day balances)

	Note	SLAS Rs.	Non Conversion Rs.	Reclassifications Rs.	Remeasurements Rs.	SLFRS/LKAS Rs.
<b>Assets</b>						
Non- Current Assets						
Property ,Plant & Equipment, Net - A1 cost	A	73,665,875,928	-	394,530,751	(571,905,331)	73,488,501,348
Intangible Assets	B	-	-	255,064,708	-	255,064,708
Capital Work in Progress	B	75,479,132,299	-	(357,090,591)	-	75,122,041,709
Other Financial assets		65,483,233	-	-	-	65,483,233
Deferred Tax Assets	B	-	-	-	-	-
<b>Current Assets</b>						
Non Operating Assets		186,528,287	-	-	-	186,528,287
Inventories	A	3,282,670,013	-	(394,530,751)	-	2,888,139,263
Trade & Other Receivables	C	4,163,963,700	-	-	(210,629,591)	3,953,334,109
Deposits & Advances		5,577,524,742	-	-	(4,364,555)	5,573,160,188
Investments	D	612,324,887	-	(254,911,077)	-	357,413,810
Cash & Cash Equivalents	D	1,160,749,233	-	254,911,077	-	1,415,660,310
<b>Total Assets</b>		<b>164,194,252,322</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>163,305,326,963</b>
<b>Liabilities and Shareholders' Funds</b>						
<b>Capital and Reserves</b>						
Assets taken over from Government Dept.		185,480,387	-	-	-	185,480,387
Government Grant		62,617,514,691	-	-	-	62,617,514,691
Capital Grants	B	78,619,983,625	-	-	(102,025,883)	78,517,957,742
Capital Recovery Fund		2,532,250,115	(2,532,250,115)	-	-	-
Staff Welfare Fund		13,468,272	-	-	-	13,468,272
Retained Earnings		(15,587,624,913)	2,532,250,115	-	134,982,033	(12,920,392,765)
<b>Liabilities</b>						
<b>Non-Current Liabilities</b>						
Loan Payable		23,070,625,176	-	-	-	23,070,625,176
Other Deferred Liabilities		3,404,692,303	(919,395,014)	-	-	2,485,297,289
Deferred Tax Liability	B	-	-	-	-	-
<b>Current Liabilities</b>						
Trade & Other Payables		3,657,266,057	(2,486,494)	-	-	3,654,779,563
Loan Capital Payable		2,362,323,996	-	-	-	2,362,323,996
Loan Interest Payable		3,157,126,784	-	-	-	3,157,126,784
Non Operating Liabilities		161,145,829	-	-	-	161,145,829
Other Payables		-	-	-	-	-
<b>Total Liabilities and Shareholders' Funds</b>		<b>164,194,252,322</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>163,305,326,963</b>

National Water Supply And Drainage Board  
NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

7. FIRST-TIME ADOPTION OF LKAS AND SLFRSs (Contd.)

7.2 Reconciliation of Balance Sheet as at 31 December 2011

	Note	SLAS Rs.	Non Conversion Rs.	Reclassifications Rs.	Remeasurements Rs.	SLFRS/LKAS Rs.
<b>Assets</b>						
<b>Non-Current Assets</b>						
Property, Plant & Equipment, Net - At cost	A	84,271,474,289	(523,203,561)	610,325,081	-	84,358,595,809
Intangible Assets	B	-	(153,038,825)	357,090,591	-	204,051,766
Capital Work in Progress	B	93,973,706,724	-	(357,090,591)	-	93,616,616,133
Other Financial assets		47,021,257	-	-	-	47,021,257
<b>Current Assets</b>						
Non Operating Assets		129,519,607	-	-	-	129,519,607
Inventories	A	3,553,283,938	-	(610,325,081)	-	2,942,958,858
Trade & Other Receivables	C	4,630,585,929	-	-	(188,075,556)	4,442,510,374
Deposits & Advances		4,463,442,277	-	-	(7,034,072)	4,456,408,204
Investments	D	987,410,125	-	(95,319,984)	-	892,090,141
Cash & Cash Equivalents	D	715,081,472	-	95,319,984	-	810,401,456
<b>Total Assets</b>		<b>192,771,525,619</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>191,900,173,605</b>
<b>Liabilities and Shareholders' Funds</b>						
<b>Capital and Reserves</b>						
Assets taken over from Government Dept.		185,480,387	-	-	-	185,480,387
Government Grant		69,440,023,265	-	-	-	69,440,023,265
Capital Grants	B	94,202,911,393	(153,038,825)	-	-	94,049,872,568
Capital Recovery Fund		3,041,083,387	(3,041,083,387)	-	-	-
Staff Welfare Fund		13,935,577	-	-	-	13,935,577
Retained Earnings		(16,171,869,528)	3,041,083,387	-	397,459,538	(12,733,326,604)
<b>Liabilities</b>						
<b>Non-Current Liabilities</b>						
Loan Payable		27,838,903,108	-	-	-	27,838,903,108
Other Deferred Liabilities		3,634,950,342	(1,105,951,700)	-	-	2,528,998,643
<b>Current Liabilities</b>						
Trade & Other Payables		5,300,674,187	(9,821,026)	-	-	5,290,853,161
Loan Capital Payable		2,687,799,521	-	-	-	2,687,799,521
Loan Interest Payable		2,464,625,111	-	-	-	2,464,625,111
Non Operating Liabilities		133,008,868	-	-	-	133,008,868
Other Payables		-	-	-	-	-
<b>Total Liabilities and Shareholders' Funds</b>		<b>192,771,525,619</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>191,900,173,605</b>

National Water Supply And Drainage Board						
NOTES TO THE FINANCIAL STATEMENTS						
Year ended 31 December 2012						
7. FIRST- TIME ADOPTION OF LKAS AND SLFRSs (Contd.)						
7.3 Reconciliation of Income Statement for the year ended 31 December 2011						
	Note	SLAS Rs.	Non Conversion Rs.	Reclassifications Rs.	Remeasurements Rs.	SLFRS/LKAS Rs.
Revenue	E	11,616,045,254	-	993,657,986	-	12,609,703,240
Less : Cost of Sales		(7,470,490,082)	-	-	-	(7,470,490,082)
<b>Gross Profit</b>		<b>4,145,555,172</b>	-	-	-	<b>5,139,213,158</b>
Other Income and Gains	E	2,081,716,017	-	(993,657,986)	230,482,340	1,318,540,371
<b>Operating Income</b>		<b>6,227,271,189</b>	-	-	-	<b>6,457,753,528</b>
<b>Less : Operating Expenses</b>						
Staff Costs	F	(1,814,396,068)	-	-	(36,591,122)	(1,850,987,190)
General & Administration Expenses		(633,016,035)	(2,669,518)	-	-	(635,685,553)
Depreciation	A	(1,769,054,208)	-	-	49,084,712	(1,719,969,496)
Other Operating Expenses		(249,979,834)	-	-	-	(249,979,834)
Disposal adjustment					83,225	83,225
Impairment charge/reversal					22,554,035	22,554,035
<b>Profits from Operations</b>		<b>1,760,825,044</b>	-	-	35,130,851	<b>2,023,768,717</b>
Revaluation Deficit		(474,261,491)	-	-	-	(474,261,491)
Finance Cost		(943,355,146)	-	-	-	(943,355,146)
Non-Operating Income		131,257,102	-	-	-	131,257,102
Less : Value Added Tax on Financial Services		-	-	-	-	-
<b>Profit Before Taxation</b>		<b>474,465,508</b>	-	-	35,130,851	<b>737,409,181</b>
Taxation- Economic Service Charge		(53,055,544)	-	-	-	(53,055,544)
<b>Profit for the Period</b>		<b>421,409,965</b>	-	-	35,130,851	<b>684,353,637</b>
Revaluation Deficit						
Actuarial Gains and Losses on Defined Benefit Plans						
<b>Other Comprehensive Income for the Year, Net of Taxes</b>		<b>-</b>	-	-	-	<b>-</b>
<b>Total Comprehensive Income for the Year</b>		<b>421,409,965</b>	-	-	-	<b>684,353,637</b>

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

### 7. FIRST- TIME ADOPTION OF LKAS AND SLFRSs (Contd...)

#### 7.4 Notes to the Reconciliation of Equity as at 1 January 2011 and 31 December 2011 and Total Comprehensive Income for the year ended 31 December 2011

##### Note A

##### Reclassification

Property Plant & Equipment balances scoped under LKAS16 was identified from the Inventory balance is reclassified under Property Plant & Equipment.

##### Remeasurement

Provision for depreciation under Previous SLAS balance contained errors occurred in revaluation process and the identified errors has removed under SLFRS.

##### Note B

Previously, the company had recognised the software under Capital Work in Progress. However in accordance with LKAS 38, the criteria for recognition of Intangible Assets are satisfied. This results in the reclassification of the Software from Capital Works in Progress to Intangible Assets. Further, annual amortisation has been charged over the life of the Intangible asset to the Capital Grants.

##### Note C

Specific provisions for bad debt were previously recognized under SLASs. The impairment approach under SLFRSs differs to SLASs, as general provisions are no longer permitted and impairment losses can only be provided for when there is objective evidence of an incurred loss. In accordance with the impairment calculation methodology as set out in LKAS 39, NWSDB's provisioning level is increased by Rs. 181,142,747 as at 31 December 2010 and by Rs.160,600,180 as at 31 December 2011.

##### Note D

According to LKAS 07 Cash & Cash Equivalents include short term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Short term Investments which was identified under investment previously has been reclassified under Cash & Cash Equivalents.

##### Retained Earnings

The transition from SLASs to SLFRSs had the following impact on retained earnings:

	1-Jan-11	31-Dec-11
Impact on re-measuring impairment provision under LKAS 39	(210,629,591)	(188,075,556)
Impact on re-measuring Depreciation Provision	(571,905,331)	(523,203,561)
Non Conversion Adjustments	917,516,953	1,108,738,654
<b>Net Impact</b>	<b>134,982,032</b>	<b>397,459,537</b>

##### Note E

Revenue related to main operations which is recognised previously by NWSDB under other income is reclassified under Revenue.

##### Note F

According to LKAS39 financial assets are subsequently measured at amortised cost using the EIR method, less impairment. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are integral part of the EIR. The EIR amortisation is included in finance income in the income statement. The losses arising from impairment are recognised in the income statement in finance costs for loans and in cost of sales or operating expenses for receivables.

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

		<b>31.12.2012</b>	<b>31.12.2011</b>
		<b>Rs.</b>	<b>Rs.</b>
<b>8. REVENUE</b>			
Metered Sales		13,142,244,955	11,648,548,237
Bulk Sales		143,402,987	168,950,497
Bowser Supply		60,949,407	45,237,145
Less: Rebates		(214,352,013)	(246,690,626)
Income from main Operations	<b>8.1</b>	<u>1,211,960,163</u>	<u>993,657,986</u>
		<b><u>14,344,205,499</u></b>	<b><u>12,609,703,240</u></b>
<b>8.1 Income from main operations</b>			
Income related to main operations		2,064,824,091	1,604,566,337
Expense related to main operations		<u>(852,863,928)</u>	<u>(610,908,351)</u>
		<b><u>1,211,960,163</u></b>	<b><u>993,657,986</u></b>
<b>9. COST OF SALES</b>			
Personnel Cost		3,917,753,682	3,345,000,435
Pumping Cost		2,894,657,147	2,417,486,303
Chemicals		500,328,094	426,959,662
Repairs & Maintenance		698,438,461	581,807,386
Establishment Expenses		326,145,933	272,493,532
Rent, Rates, Taxes, Security & Other Expenses		<u>484,474,286</u>	<u>426,742,765</u>
		<b><u>8,821,797,602</u></b>	<b><u>7,470,490,082</u></b>
<b>10. OTHER OPERATING INCOME</b>			
Capital Recovery Charges		619,251,603	508,833,271
Other Income	<b>10.1</b>	793,621,926	773,115,978
Staff loan benefit		27,289,095	36,591,122
Over provision on Defined Benefit Plans		<u>146,349,076</u>	<u>-</u>
		<b><u>1,586,511,700</u></b>	<b><u>1,318,540,371</u></b>
<b>10.1 Others Income</b>			
Income related to other operations		877,130,870	645,668,256
Expenses related to other operations		<u>(83,508,945)</u>	<u>(66,443,496)</u>
		<b><u>793,621,926</u></b>	<b><u>579,224,760</u></b>

National Water Supply And Drainage Board  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2012

		<b>2012</b>	<b>2011</b>
		<b>Rs.</b>	<b>Rs.</b>
<b>11. ADMINISTRATIVE EXPENSES</b>			
Repairs & Maintenance		131,072,790	96,361,017
Establishment Expenses		466,373,572	341,709,664
Rent,Rates,Taxes, Security & Other Expenses		209,282,718	197,614,872
Staff Cost	11.1	2,574,834,402	1,850,987,190
Depriciation	11.2	1,689,736,864	1,719,886,271
Revaluation Deficit		<u>776,836,147</u>	<u>474,261,491</u>
		<b><u>5,848,136,492</u></b>	<b><u>4,680,820,504</u></b>
<b>11.1 Staff cost</b>			
Staff Cost		27,289,095	36,591,122
Personnel Cost		<u>2,547,545,307</u>	<u>1,814,396,068</u>
		<b><u>2,574,834,402</u></b>	<b><u>1,850,987,190</u></b>
<b>11.2 Depreciation</b>			
Building and structure		544,676,631	586,216,254
Plant & Machinery		561,015,035	526,426,203
Equipments		712,107,690	679,276,607
Furniture and Fittings		20,568,161	19,238,808
Computers & Periparels		39,652,053	38,011,961
Motor Vehicles Cars		<u>148,505,605</u>	<u>148,512,694</u>
		2,026,525,175	1,997,682,527
Less: Depn. for Grant funded Assets		<u>(336,788,311)</u>	<u>(277,796,256)</u>
		<b><u>1,689,736,864</u></b>	<b><u>1,719,886,271</u></b>
<b>12. OTHER OPERATING EXPENSES</b>			
Bad & Doubtful Debts		64,219,260	24,259,155
Provision for Irrecoverable Staff Loans		2,420,995	3,076,610
Over Provision for Obsolete Stock		(12,165,445)	(16,666,846)
Retiring Gratuity		<u>-</u>	<u>216,756,879</u>
		<b><u>54,474,810</u></b>	<b><u>227,425,798</u></b>
<b>13. FINANCE COST</b>			
Interest On Loans		1,723,224,377	1,461,575,631
Less: Capitalised Interest on Construction Projects		<u>(709,979,636)</u>	<u>(518,220,484)</u>
		<b><u>1,013,244,742</u></b>	<b><u>943,355,146</u></b>
<b>14. FINANCE INCOME</b>			
Investment Income		<u>213,955,983</u>	<u>131,257,102</u>
		<b><u>213,955,983</u></b>	<b><u>131,257,102</u></b>
<b>15. TAXATION</b>			
Economic Service Charge		<u>40,217,024</u>	<u>53,055,544</u>
		<b><u>40,217,024</u></b>	<b><u>53,055,544</u></b>

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

		2012 Rs.	2011 Rs.	2010 Rs.
<b>16. CAPITAL WORK IN PROGRESS</b>				
Construction Work		78,371,444,663	66,995,634,465	49,823,760,056
Rehabilitation		25,275,726,217	26,620,981,669	25,298,281,653
		<u>103,647,170,880</u>	<u>93,616,616,133</u>	<u>75,122,041,709</u>
<b>17. INTANGIBLE ASSETS</b>				
Software		204,051,766	255,064,708	306,077,649
Amortisation		(51,012,942)	(51,012,942)	(51,012,942)
		<u>153,038,825</u>	<u>204,051,766</u>	<u>255,064,708</u>
<p>This include the ERP system, NWSDB developed for the internal use. Reaserch and development cost that are not eligible for capitalisation have been expensed in the period incurred and are recognised in administrative expenses.</p>				
<b>18. OTHER FINANCIAL ASSETS</b>				
HDFC Investment for Staff Housing Loans		36,785,453	46,028,408	64,541,010
Bank of Ceylon Saving - II		1,033,412	992,849	942,223
		<u>37,818,865</u>	<u>47,021,257</u>	<u>65,483,233</u>
<b>19. INVENTORIES</b>				
PVC Steel Pipe		2,010,557,536	1,641,965,851	1,582,763,623
Water Meter & Fitting & Brass Items		255,285,047	212,880,296	250,027,734
Chemical Material		115,591,491	132,206,853	154,212,324
Electricals		270,706,227	109,196,650	68,468,256
Building Material		31,610,128	29,278,116	20,341,246
Pump & Spare Parts		587,235,194	548,736,565	334,472,127
Vehicle Spare Parts		67,865,320	61,568,516	60,058,624
Stationary & Office Equipment		31,415,032	30,282,705	22,797,745
Other Items		307,869,265	125,728,579	358,836,636
Goods In Transit		254,121,907	102,912,445	72,629,229
Stock Adjustments		(4,174,918)	(2,967,515)	29,028,765
Property Plant and Equipment at Stores		(698,216,120)	-	-
Provision for Obsolete Stock		(36,664,757)	(48,830,202)	(65,497,047)
		<u>3,193,201,350</u>	<u>2,942,958,858</u>	<u>2,888,139,263</u>
<b>20. TRADE AND OTHER RECEIVABLES</b>				
Trade Debtors		3,656,424,638	2,961,050,085	2,719,393,716
Other Debtors		278,718,397	248,754,242	228,746,464
Less : Debtors Impairment (Collective)	675,666,925		(611,625,163)	(592,345,929)
Less : Debtors Impairment (Specific)	<u>52,787,509</u>	(728,454,434)	(55,995,326)	(58,276,086)
Debtors Collection Control		382,205,782	422,575,444	231,404,538
VAT Receivable		13,046,606	15,278,618	1,445,442
WHT Receivable		9,358,745	1,602,711	1,310,065
Advances to Staff		24,985,830	35,565,164	40,276,961
Loans to Employees		1,262,198,822	1,480,620,215	1,376,954,220
Receivable on Interest & Others		31,695,434	5,755,482	4,424,718
Inter-regional Current Accounts		-	(61,071,098)	-
		<u>4,930,179,819</u>	<u>4,442,510,374</u>	<u>3,953,334,109</u>

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

	2012 Rs.	2011 Rs.	2010 Rs.
<b>21. DEPOSITS AND ADVANCES</b>			
Rechargeable Project Work	47,565,589	397,277,886	406,295,088
Pre Payments	2,423,000	-	870,000
Special Dollar Account	-	133,722,027	133,722,027
Advances	3,383,312,588	3,824,951,387	4,934,196,234
Deposits	63,149,174	100,456,904	98,076,839
	<u>3,496,450,351</u>	<u>4,456,408,204</u>	<u>5,573,160,188</u>
<b>22. SHORT TERM INVESTMENTS</b>			
Treasury Bills	12,341,312	892,090,141	357,413,810
	<u>12,341,312</u>	<u>892,090,141</u>	<u>357,413,810</u>
<b>23. CASH AND CASH EQUIVALENTS</b>			
Cash In Bank	631,662,977	673,706,062	1,153,199,362
Cash Imprest Head Office	62,600	234,507	1,290,678
Cash Imprests Regions	612,172	282,756	248,425
Cash In Transit	67,778,397	40,858,146	6,010,768
Call Deposits	1,015,466,000	-	68,500,000
Savings Account	158,684,182	95,319,984	186,411,077
	<u>1,874,266,329</u>	<u>810,401,456</u>	<u>1,415,660,310</u>
<b>24. ASSETS TAKEN OVER FROM GOVERNMENT</b>			
Assets taken over from Government Dept.	185,480,387	185,480,387	185,480,387
	<u>185,480,387</u>	<u>185,480,387</u>	<u>185,480,387</u>
<b>25. GOVERNMENT GRANT</b>			
Tresuary Grant	77,931,820,155	69,440,023,265	62,617,514,691
	<u>77,931,820,155</u>	<u>69,440,023,265</u>	<u>62,617,514,691</u>
<b>26. CAPITAL GRANTS</b>			
Foreign Grants	115,885,741,431	93,574,394,084	78,047,738,533
Local Grants	475,991,414	475,478,484	470,219,209
	<u>116,361,732,845</u>	<u>94,049,872,568</u>	<u>78,517,957,742</u>
<b>27. STAFF WELFARE FUND</b>			
Opening Balance	13,935,577	13,468,272	13,116,170
Received during the year	480,002	467,305	352,102
	<u>14,415,579</u>	<u>13,935,577</u>	<u>13,468,272</u>

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

		2012	2011	2010
		Rs.	Rs.	Rs.
<b>28. LOAN PAYABLE</b>				
Interest Payable		-	494,735,575	494,735,575
Foreign Loans through Treasury		28,980,840,227	27,220,408,823	22,451,615,595
Local Loans		<u>30,670,489</u>	<u>123,758,710</u>	<u>124,274,006</u>
		<b><u>29,011,510,716</u></b>	<b><u>27,838,903,108</u></b>	<b><u>23,070,625,176</u></b>
<b>29. OTHER DEFERRED LIABILITIES</b>				
Retiring Gratuity Provision	29.1	2,096,769,746	2,438,804,935	2,402,977,185
Customer and Employee Security Deposits		<u>55,311,139</u>	<u>90,193,708</u>	<u>82,320,104</u>
		<b><u>2,152,080,886</u></b>	<b><u>2,528,998,643</u></b>	<b><u>2,485,297,289</u></b>
<b>29.1. Movement of Retiring Gratuity Provision</b>				
Balance at the Beginning of the Period		2,438,804,935	2,402,977,185	2,333,955,232
Add Provision for the Period		(146,349,076)	216,756,879	220,195,945
Less: Gratuity Payments during the Period		<u>(195,686,112)</u>	<u>(180,929,130)</u>	<u>(151,173,991)</u>
		<b><u>2,096,769,746</u></b>	<b><u>2,438,804,935</u></b>	<b><u>2,402,977,185</u></b>
<b>30. TRADE AND OTHER PAYABLES</b>				
Rechargeable Work - Customer Advances		1,680,886,079	1,671,061,410	1,264,869,393
Contractors Retention		2,032,754,411	1,801,794,737	1,060,004,822
Lease Hold Creditors		13,820,561	21,717,989	29,615,417
Less: Interest in Suspense		(2,157,112)	(5,189,474)	(9,605,875)
Creditors Control		397,192,431	171,478,098	125,883,574
Other Creditors		55,286,472	35,149,669	41,687,764
Accrued Expenses		242,198,184	607,300,228	176,826,595
Provision for Cash Losses		1,075,000	1,075,000	1,075,000
Deposits		79,684,110	53,833,320	29,005,101
VAT Payable		298,983,431	799,230,944	802,852,069
With Holding Tax		693,315	1,681,061	18,576,285
Salaries and Other Payables		<u>122,605,006</u>	<u>131,720,180</u>	<u>113,989,418</u>
		<b><u>4,923,021,889</u></b>	<b><u>5,290,853,161</u></b>	<b><u>3,654,779,563</u></b>

National Water Supply And Drainage Board						
NOTES TO THE FINANCIAL STATEMENTS						
Year ended 31 December 2012						
31. PROPERTY, PLANT AND EQUIPMENT	Balance	Additions	Transfers	Disposals	Balance	
	As at				As at	
31.1 Gross Carrying Amounts	01.01.2012				31.12.2012	
	Rs.	Rs.	Rs.	Rs.	Rs.	
<b>Cost</b>						
<b>Freehold Assets</b>						
Land Freehold	7,749,278,932	2,788,039,814	2,732,174,259	-	7,805,144,487	
Land Leasehold	587,058,964	1,035	1,035	-	587,058,964	
Infrastructure	3,019,952,040	651,015,899	2,916,054	-	3,668,051,884	
Building - Freehold	6,440,636,781	1,034,073,224	340,686,945	-	7,134,023,060	
Structures	23,772,723,224	5,250,342,917	3,978,298,849	-	25,044,767,292	
Plant & eq: pumping treatment	11,082,656,899	4,563,561,125	51,714,045	-	15,594,503,979	
Service meter	5,421,254	-	-	-	5,421,254	
Bulk water meter	107,366,459	37,032,390	166,061	-	144,232,789	
Transmission & Dist:	34,429,793,030	13,708,650,113	100,879,203	-	48,037,563,940	
Mobile Eq:	157,992,745	95,902,726	24,210,040	-	229,685,431	
Survey Eq:	1,063,203	13,388,319	6,394,506	-	8,057,016	
Laboratory	233,337,933	64,254,554	9,594,018	-	287,998,469	
Other Equipment	546,847,183	313,626,623	14,432,317	-	846,041,488	
Furniture & fittings-computer	202,513,767	63,343,739	8,921,203	215,000	256,721,304	
Computers & Periparels	190,059,804	49,069,417	7,072,403	-	232,056,818	
Motor vehicles cars	171,130,671	59,919,383	3,164,587	1,920,000	225,965,467	
Van busses & jeeps	360,909,394	39,126,175	22,201,175	1,500,000	376,334,394	
Lorries & trucks	837,368,499	198,754,447	63,747,856	8,650,000	963,725,090	
Tractors & trailers	89,721,460	5,540,000	27,763,000	855,000	66,643,460	
Water bowsers, Heavy veh:	486,394,305	159,369,311	161,512,490	3,650,000	480,601,126	
Motor cycles	17,391,201	7,702,627	2,295,543	212,501	22,585,784	
Three Weelers	1,038,240	300,000	-	-	1,338,240	
Lease hold Vehicles	22,671,376	-	-	-	22,671,376	
<b>Total</b>	<b>90,513,327,364</b>	<b>29,103,013,838</b>	<b>7,558,145,589</b>	<b>17,002,501</b>	<b>112,041,193,112</b>	

National Water Supply And Drainage Board						
NOTES TO THE FINANCIAL STATEMENTS						
Year ended 31 December 2012						
31. PROPERTY, PLANT AND EQUIPMENT						
31.2 Depreciation	Balance As at 01.01.2012 Rs.	Charge for the Period Rs.	Transfers Rs.	Disposals Rs.	Balance As at 31.12.2012 Rs.	
<b>Depreciation</b>						
<b>Freehold Assets</b>						
Land Freehold	-	-	-	-	-	
Land Leasehold	-	-	-	-	-	
Infrastructure	166,273,786	61,638,111	-	-	227,911,897	
Building - Freehold	419,293,591	129,857,130	13,386,400.00	-	535,764,320	
Structures	1,368,779,963	353,181,390	240,288,484.60	-	1,481,672,868	
Plant & eq: pumping treatment	1,479,364,926	561,015,035	53,200.00	-	2,040,326,761	
Service meter	717,059	536,704	-	-	1,253,763	
Bulk water meter	30,393,384	11,093,300	-	-	41,486,684	
Transmission & Dist:	1,740,386,612	603,306,541	-	-	2,343,693,154	
Mobile Eq:	39,169,776	16,995,072	-	-	56,164,847	
Survey Eq:	358,355	140,477	-	-	498,832	
Laboratory	81,082,549	23,799,210	305,498.00	-	104,576,261	
Other Equipment	138,474,713	56,236,385	3,798.00	-	194,707,300	
Furniture & fittings-computer	82,634,769	20,568,161	102,380.54	156,085	102,944,464	
Computers & Periparels	65,043,938	39,652,053	-	-	104,695,991	
Motor vehicles cars	68,667,748	29,944,857	54,340.00	956,384	97,601,881	
Van busses & jeeps	191,315,974	48,996,737	271,700.00	774,345	239,266,666	
Lorries & trucks	147,160,370	39,686,239	826,500.00	1,672,000	184,348,110	
Tractors & trailers	32,003,587	6,157,459	6,745,380.00	172,900	31,242,766	
Water bowsers, Heavy veh:	88,642,007	18,919,617	11,654,251.67	536,750	95,370,623	
Motor cycles	6,397,998	1,617,654	144,400.38	80,750	7,790,502	
Three Wheelers	100,709	103,134	-	-	203,844	
Lease hold Vehicles	8,469,743	3,079,906	-	-	11,549,649	
<b>Total</b>	<b>6,154,731,555</b>	<b>2,026,525,175</b>	<b>273,836,333</b>	<b>4,349,214</b>	<b>7,903,071,183</b>	

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

### 31. PROPERTY, PLANT AND EQUIPMENT

31.3 Gross Carrying Amounts	Balance As at 01.01.2011	Additions	Transfers	Disposals	Balance As at 31.12.2011
Cost	Rs.	Rs.	Rs.	Rs.	Rs.
<b>Freehold Assets</b>					
Land Freehold	7,772,865,153	69,886,829.60	93,473,051	-	7,749,278,932
Land Leasehold	435,548,646	151,510,318	-	-	587,058,964
Infrastructure	2,824,281,290	195,670,751	-	-	3,019,952,040
Building - Freehold	5,291,651,169	1,148,985,612	-	-	6,440,636,781
Structures	20,554,855,460	3,217,867,764	-	-	23,772,723,224
Plant & eq: pumping treatment	8,554,686,072	2,527,970,827	-	-	11,082,656,899
Service meter	627,254	4,794,000	-	-	5,421,254
Bulk water meter	86,485,195	20,881,264	-	-	107,366,459
Transmission & Dist:	29,135,478,908	5,294,314,122	-	-	34,429,793,030
Mobile Eq:	140,258,202	17,734,543	-	-	157,992,745
Survey Eq:	862,116	201,087	-	-	1,063,203
Laboratory	228,058,391	5,279,541	-	-	233,337,933
Other Equipment	348,037,732	198,809,451	-	-	546,847,183
Furniture & fittings-computer	175,151,926	27,474,841	-	113,000	202,513,767
Computers & Periparels	135,159,886	54,899,918	-	-	190,059,804
Motor vehicles cars	156,412,233	14,718,438	-	-	171,130,671
Van busses & jeeps	359,416,563	6,992,831	-	5,500,000	360,909,394
Lorries & trucks	829,281,482	8,087,016.66	-	-	837,368,499
Tractors & trailers	89,521,460	200,000	-	-	89,721,460
Water bowsers, Heavy veh:	489,769,304	1,375,000	2,550,000	2,200,000	486,394,305
Motor cycles	17,057,788	333,413	-	-	17,391,201
Three Wheelers	-	1,038,240	-	-	1,038,240
Lease hold Vehicles	22,671,376	-	-	-	22,671,376
<b>Total</b>	<b>77,648,137,606</b>	<b>12,969,025,809</b>	<b>96,023,051</b>	<b>7,813,000</b>	<b>90,513,327,364</b>

# National Water Supply And Drainage Board

## NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

### 31. PROPERTY, PLANT AND EQUIPMENT

31.4 Depreciation	Balance As at 01.01.2011 Rs.	Charge for the Period Rs.	Transfers Rs.	Disposals Rs.	Balance As at 31.12.2011 Rs.
<b>Depreciation</b>					
<b>Freehold Assets</b>					
Land Freehold	-	-	-	-	-
Land Leasehold	-	-	-	-	-
Infrastructure	105,874,745	60,399,041	-	-	166,273,786
Building - Freehold	290,480,856	128,812,736	-	-	419,293,591
Structures	971,775,485	397,004,478	-	-	1,368,779,963
Plant & eq: pumping treatment	952,938,723	526,426,203	-	-	1,479,364,926
Service meter	180,354	536,704	-	-	717,059
Bulk water meter	19,764,104	10,629,279	-	-	30,393,384
Transmission & Dist:	1,165,409,068	574,977,544	-	-	1,740,386,612
Mobile Eq:	24,160,466	15,009,311	-	-	39,169,776
Survey Eq:	253,098	105,257	-	-	358,355
Laboratory	57,748,755	23,333,793	-	-	81,082,549
Other Equipment	83,789,994	54,684,718	-	-	138,474,713
Furniture & fittings-computer	63,428,166	19,238,808	-	32,205	82,634,769
Computers & Periparels	27,031,977	38,011,961	-	-	65,043,938
Motor vehicles cars	45,419,647	23,248,102	-	-	68,667,748
Van busses & jeeps	144,527,956	49,029,541	-	2,241,525	191,315,974
Lorries & trucks	107,385,366	39,775,004	-	-	147,160,370
Tractors & trailers	23,480,046	8,523,539	-	-	32,003,587
Water bowsers, Heavy veh:	65,851,778	23,103,729	-	313,500	88,642,007
Motor cycles	4,745,833	1,652,164	-	-	6,397,998
Three Wheelers	-	100,709	-	-	100,709
Lease hold Vehicles	5,389,836	3,079,906	-	-	8,469,743
<b>Total</b>	<b>4,159,636,253</b>	<b>1,997,682,527</b>	<b>-</b>	<b>2,587,230</b>	<b>6,154,731,555</b>



National Water Supply And Drainage Board

NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

31. PROPERTY, PLANT AND EQUIPMENT (Contd...)

31.6 Investment Property

The Building Constructed by the Board at Sunil Mawatha, Battaramulla currently occupied by the Ministry Of Water Supply & Drainage is recognized as an Investment Property according to the LKAS 40 - Investment Property.

This Investment Property is included under the Property, Plant & Equipment

Cost	Land	Building	Total
Balance as at 01.01.2012	138,500,000	211,605,945	350,105,945
Additions	-	-	-
Disposals	-	-	-
Balance as at 31.12.2012	<u>138,500,000</u>	<u>211,605,945</u>	<u>350,105,945</u>
<b>Depriciation</b>			
Balance as at 01.01.2012	-	1,763,383	1,763,383
Charge for the Period	-	4,232,119	4,232,119
	-	5,995,502	5,995,502
<b>Net Book Value</b>	<u>138,500,000</u>	<u>205,610,443</u>	<u>344,110,443</u>

National Water Supply And Drainage Board

NOTES TO THE FINANCIAL STATEMENTS

Year ended 31 December 2012

32. DEFERRED TAXATION

Deferred Tax Assets, Liabilities and Income Tax relates to the followings

	Balance Sheet		Income Statement	
	2012 Rs.	2011 Rs.	2012 Rs.	2011 Rs.
<b>Deferred Tax Liability</b>				
Capital Allowances	6,499,837,047	1,184,677,164	5,405,798,412	(110,158,974)
Intangible assets	42,850,871	57,134,495	(8,034,538)	(32,138,153)
Effect of rate change	-	(96,887,615)	-	-
	<u>6,542,687,917</u>	<u>1,144,924,044</u>	<u>5,397,763,874</u>	<u>(142,297,127)</u>
<b>Deferred Tax Assets</b>				
Defined Benefit Plans	28,192,630	60,691,926	(30,077,408)	833,260,986
Debtors Impairment	189,186,739	171,255,046	(32,444,169)	36,066,030
Revaluation Deficit	217,514,121	132,793,217	(174,987,293)	1,156,726,622
Effect of rate change	-	(167,355,568)	-	-
	<u>434,893,491</u>	<u>197,384,621</u>	<u>2,390,793,827</u>	
<b>Deferred income tax charge/(reversal)</b>			<u>5,160,255,004</u>	<u>1,883,756,510</u>

Net Deferred Tax Liability/ (Asset)

6,107,794,427 947,539,422 (1,006,685,041)

Note:

The existence of unused tax losses is strong evidence that future taxable profit may not be available. NWSDB has a cumulative tax loss of Rs.52,640,105,337 as at 31/12/2012. Therefore paying Income Tax by NWSDB is very unlikely, resulting in not recognising a net deferred tax asset.

**National Water Supply And Drainage Board**  
**NOTES TO THE FINANCIAL STATEMENTS**

Year ended 31 December 2012

**33 RELATED PARTY TRANSACTIONS**

**Transactions with State and State Controlled Entities**

In the normal course of its operations, the Board enters into transactions with related parties. Related parties include the Government of Sri Lanka (State: as the ultimate owner of the Board), various government departments, and State controlled entities. Particulars of transactions, and arrangements entered by the Board with the State and State controlled entities which are individually significant and for other transactions that are collectively, but not individually significant are as follows:

**Key Management Compensation**

National Water Supply and Drainage Board's key management personnel include the Board of Directors, Minister and the Secretary to the Ministry of Water Supply & Drainage.

	<b>2012</b>	<b>2011</b>
	<b>Rs.</b>	<b>Rs.</b>
Short term employment benefits	811,250	416,470

**34 EVENTS AFTER THE BALANCE SHEET DATE**

All the material events after the balance sheet date have been considered and appropriate adjustment and disclosures have been made in to the financial statement, where necessary.

**Report of the Auditor General on the  
Financial Statements of the National  
Water Supply and Drainage Board for the  
year ended 31 December 2012 in terms  
of Section 14 (2) (C) of the Finance Act,  
No 38 of 1971**



විගණකාධිපති දෙපාර්තමේන්තුව  
கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்  
**AUDITOR GENERAL'S DEPARTMENT**



මගේ අංකය  
எனது இல. }  
My No. }

EH/E/NWSDB/FA/2012

මගේ අංකය  
எனது இல. }  
Year No. }

දිනය  
திகதி }  
Date }

30 April 2015

The Chairman  
National Water Supply and Drainage Board

**Report of the Auditor General on the Financial Statements of the National Water Supply and Drainage Board for the year ended 31 December 2012 in terms of Section 14 (2) (c) of the Finance Act, No 38 of 1971**

The audit of financial statements of the National Water Supply and Drainage Board (NWSDB) for the year ended 31 December 2012 comprising the statement of financial position as at 31 December 2012 and the statement of comprehensive income, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information, was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No.38 of 1971. My comments and observations which I consider should be published with the annual report of the Board in terms of Section 14 (2) (c) of the Finance Act appear in this report. A detailed report in terms of Section 13(7)(a) of the Finance Act will be issued to the Chairman of the Board in due cause.

**1.2 Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

### 1.3 **Auditor's Responsibility**

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards. Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Board preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. Sub-sections (3) and (4) of the Section 13 of the Finance Act, No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my qualified audit opinion.

### 1.4 **Basis for Qualified Opinion**

My opinion is qualified based on the matters described in paragraph 2.2 of this report.

## 2. **Financial Statements**

### 2.1 **Qualified Opinion**

In my opinion, except for the effects of the matters described in paragraph 2.2 of this report, the financial statements give a true and fair view of the financial position of the National Water Supply and Drainage Board (NWSDB) as at 31 December 2012 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Accounting Standards.

## 2.2 Comments on Financial Statements

### 2.2.1 Sri Lanka Accounting Standards (LKAS)

The following observations are made.

#### (a) **LKAS 16 – Property, Plant and Equipment (PPE)**

Even though the vehicles, buildings and infrastructure of the Board should have been presented at fair value in the financial statements, the sample test check revealed that some of those assets belonging to the North Central and Southern Regional Offices of the Board had not been brought to the financial statements at fair value.

#### (b) **LKAS 20 – Accounting for Government Grants and Disclosure of Government Assistance.**

The benefit of the Government loans granted at interest rates below the market rates had not been treated as Government Grant in the financial statements.

### 2.2.2 Accounting Deficiencies

The following observations are made.

#### (a) Sums of Rs. 394,530,751, Rs. 610,325,081 and Rs 698,216,120 relating to the stocks of vehicle spare parts, water pumps and pumps spare parts as at 01 January 2011, 31 December 2011 and 31 December 2012 respectively, had been capitalized without considering the capitalization criteria of the property, plant and equipment.

Further, the pumps, pipes and spare parts capitalized during the year under review was Rs. 698,216,120 while the physically verified balance as at 31 December 2012 was Rs.690,530,690. Hence, the property, plant and equipment shown in the financial statements as at 31 December 2012 had been overstated by Rs. 7,685,429.

#### (b) Total rebates (discount) given to the consumers for the year 2012 at the time of settlement of their monthly water bills amounting to Rs.214,352,013 had been deducted from the revenue of the year under review without being treated as cash discounts and as a result, the gross revenue shown in the statement of comprehensive income had been understated by similar amount.

#### (c) The Non-Revenue Water Project (SL P – 66) funded by the Japan Bank for International Cooperation (JBIC) had not been succeeded and as such the Project had subsequently been cancelled. However, a sum of Rs.354.7 million incurred from

Consolidated Fund and the Loan in respect of site preparation, payroll, establishment expenditure and payment for consultancy services etc. up to the time of cancellation of the Project had been transferred to the capital work-in-progress of the Kaluganga and Greater Colombo Rehabilitation Projects, without being treated as a loss to the Board.

- (d) The actual cash movements of the capital work-in-progress for the year under review had not been reflected in the cash flow statement and a difference of Rs. 10,030,554,746 between the opening and closing balance of that account had been identified as cash out flow. The actual amount spent during the year under review could not be ascertained in audit due to non-maintaining the required records properly.
- (e) Without being identified the actual cash out flow relating to the acquisition of the property, plant and equipment during the year under review, a sum of Rs. 26,099,213,596 had been taken into the cash flow statement as cash outflow by ascertaining the value after making certain adjustments there to which could not be accepted in audit.
- (f) Having debit balances in liability accounts aggregating Rs.31,967,414, credit balances in assets accounts aggregating Rs.20,669,180 and credit balances in expenditure accounts aggregating Rs.10,214,620 shown in the financial statements appeared to be abnormal and distorted the financial results and financial position of the Board for the year under review.
- (g) The sale proceeds from disposal of eight vehicles in 2011 amounting to Rs.2,947,140 had been accounted in that year. However, posting the costs and accumulated depreciation of those vehicles to the disposal account in the year under review had resulted to overstate and understate the financial results shown in the financial statements of the year under review and the previous year by Rs.3,783,340.
- (h) The loss from disposal of assets amounting to Rs. 3,050,766 had been deducted from the retained profit shown in the statement of changes in equity without being charged against the revenue of the year under review. Hence, the net profit shown in the statement of comprehensive income had been overstated by that amount.
- (i) Stock received to the stores at Hakmana in 2012 amounting to Rs. 5,337,718 had been classified as goods- in-transit in the financial statements. In the meantime the stock handed over to the Board by four foreign funded Projects completed prior to 2012 amounted to Rs. 29,836,125 had not been bought to the stock ledger. In addition to

that, 889 stock items handed over by some other foreign funded Projects had also not been valued and brought to accounts.

- (j) The Cost of completed and commissioned 36 water supply Projects amounting to Rs.1,025,553,690 had remained in the working progress as at 31 December 2012 without being capitalized. Further, 10 Projects to the cost of Rs. 316,309,795 out of them had been completed more than six years ago.
- (k) Work-in--progress balance of Rs. 935,920,720 had remained unchanged over a period of 2 to 7 years without being investigated in order to make necessary adjustments in the financial statements.
- (l) Three outside Projects undertaken by the Board for Rs. 130,657,409 had been completed and handed over to the respective parties as at 31 December 2012. Nevertheless, they were still remained in the work-in-progress account shown in the financial statements as at 31 December 2012.
- (m) The inventory balances shown in the financial statements as at 31 December 2012 had been understated by Rs. 16,165,505 due to taking the ledger balance into accounts instead of being taken the physically verified stock balances of four stores in Batticaloa Regional Office.
- (n) Stock valued at Rs. 2,088,107 transferred to the stores of the Bandarawela Regional Office from the stores of the Monaragala Regional Office had been posted to the stock adjustments Account (476) instead of being posted to the Stock Account (202) of the Bandarawela Regional Office.
- (o) Debit and credit balances in the suspense account of Rs.3,429,965 and Rs. 956,115 respectively, had been carried forward in the financial statements year by year since longer period without being cleared.
- (p) A sum of Rs. 66,349,388 worth of property, plant and equipment held at stores in the Vauniya Regional Office since 2009 had been transferred to the property, plant and equipment and revalued in the year 2012. However, any depreciation in respect of this property, plant and equipment since 2009 had not been provided for in the financial statements.

The Chairman of the Board had stated in this regard as follows.

*“Even though the assets were used, they were not documentarily issued to the users due to the uncertain situation in the North in previous years. Therefore, we were unable to estimate the depreciation to the respective assts.”*

- (q) Accumulated depreciation of Rs. 254,176,756 in relation to the assets revalued in 2011 had not been transferred to the revaluation account of that year. However, it had been deducted together with the depreciation for the year 2012 amounting Rs. 33,962,411 from the brought forward retained earnings shown in the statement of changes in equity. As a result, the profit for the year under review had been overstated by Rs. 33,962,411.
- (r) The revaluation loss of Rs. 776,836,147 transferred to the administration expenditure of the year 2012 had included the previous year revaluation loss of Rs.16,087,247 as well. In this results, the net profit shown in the financial statements for the year under review had been understated by Rs 16,087,247.
- (s) The value of the land belonging to the Yatiyanthota Water Supply Scheme had incorrectly been accounted as Rs. 26,400,000 whereas its actual cost was Rs. 2,640,000. Therefore, the property, plant and equipment shown in the financial statements of the year under review had been overstated by Rs. 23,760,000.
- (t) The assets at Ambatale Water Treatment Plant obtained by the Board from a private company on lease basis for a period of ten years since 2002 had also been revalued as Rs. 48,276,000 and brought to the same asset accounts of the Board. Even though the lease period of the assets had been elapsed as at 30 September 2012, these assets had remained in the accounts of the Board without being adjusted.
- (u) The sub- loan granted by the General Treasury for the Jaffna Killinochi Water Supply Project funded by the Asian Development Bank had not been brought to the financial statements of the year under review. The loan balance as at 31 December 2012 was Rs. 136,873,431.
- (v) The foreign aid granted by the Government of France and French Development Agency for Greater Trincomalee Water Supply Project in 2009 was Rs. 133,722,026. The General Treasury treats a half of that as a grant and the balance half as a sub-loan. However, the Board had accounted the entire amount as a loan in 2009 and the error had been rectified in 2012. But, the interest accounted for the entire amount had not been rectified and as such, the net profit of the year under review and the retained profit as at 01 January 2012 had been understated by Rs,4,011,661 and Rs. 8,023,322 respectively while overstating the payable balance as at 31 December 2012 by Rs.12,034,982.
- (w) Interest for the years 2010, 2011 and 2012 in respect of Asian Development Bank loan obtained for the Dry Zone Urban Water and Sanitation Project amounting to Rs.229,355, Rs.333,845 and Rs. 4,495,834 respectively had not been brought to the

accounts and as a results, both work-in-progress and accrued expenditure shown in the financial statements as at 31 December 2012 had been understated by Rs.5,059,034.

- (x) According to the financial statements of the year 2012, the balance in the Foreign Grant Account as at 31 December 2012 was Rs.115,885,741,431 and the following deficiencies were observed in this regard .
- (i) Out of the above balance, sums aggregating Rs.15,510,711,286 or 13 per cent in relation to 48 accounts had remained unchanged over a period of 3 to 7 years without being amortized as at 31 December 2012. The impact to the financial statements due to non-amortization could not be ascertained in audit as there were no details of the assets relevant to those foreign grants.
  - (ii) The abnormal debit balance of Rs.3, 257,197 was observed in that balance due to over amortization of the foreign grants relevant to NORAD 3 Project.
  - (iii) Payment of gratuity amounting to Rs. 5,940,582 had also been included therein.
  - (iv) Transactions aggregating Rs. 2,451,558,287 posted to the Foreign Grant Account No. 00/0/00/365/0 which could not be allocated for particular project/s, had not been amortized as at 31 December 2012.
  - (v) The total value of assets donated to the Regional Support Centers of Tirukowill and Potuwill by the UNICEF and Red Cross Organizations was Rs.1,252,656,322. However, it had been transferred to the Head Office Grant Account (A/CNo. 00/0/00/365/0) without being posted to the relevant grants which had also caused not to amortize.
- (y) New water supply connections given on credit basis had not been brought to the accounts. Instead, the installment of new connection charges recovered in 2012 through monthly water bills amounting Rs.17,138,893 had only been credited to New Connection Installment Debtor Control Account.
- (z) The sub loan agreements for 11 foreign loans obtained by the Government of Sri Lanka for water supply schemes amounting to Rs. 10,458,797,332 had not been entered into with the General Treasury and as a result, the loan and grant portions could not be separately identified in audit. However, the entire amount had been accounted as project loans in the financial statements without obtaining a clearance from the General Treasury. Even though the loan interest of Rs. 693,633,943 for the year under review relating to six foreign loans of Rs. 7,832,854,966 had only been accounted for, the basis for such accounting treatment was not made available to audit.

- (aa) Fifteen items of assets valued at Rs.16,057,633 held in Regional Support Centre (Western North) as at 31 December 2012 had not been taken into the financial statements.
- (ab) The net book value of the removed buildings of Regional Support Centre (Western North) amounting to Rs. 2,764,160 had remained in the accounts and as such, the property, plant and equipment shown in the financial statements as at 31 December 2012 had been overstated by that amount.
- (ac) The sewerage debtor balance of Rs.41,293,375 written off in 2012 had been adjusted to the opening balance of the retained earnings of the year 2012 without being charged against the profit of the year under review. As a result, the profit of the year under review had been understated by similar amount.
- (ad) The entire work-in-progress balance of NORAD Project funded by the Norwegian Government and Government of Sri Lanka (GOSL) aggregating Rs.81,497,789 had been set off against the brought forward balance relating to GOSL without being identified the exact amount incurred by each source.
- (ae) The work-in-progress balances of Moratuwa, Ratmalan, Jaela/Ekala Waste Water Project and the Greater Trincomalee Water Supply Project as at 31 December 2012 shown in the financial statement of the Board had been understated by Rs. 22,193,932 and Rs. 698,523,622 respectively due to erroneous posting and error in computation of such balances.
- (af) Receivable balance of the construction cost incurred in relating to rechargeable works amounting to Rs. 47,565,589 shown under deposits and advances in the financial statements had included a credit balance of Rs.1,952,428 as well and as a result, the receivable balance had been understated by similar amount. It was further observed that action had not been taken to set off that outstanding balance against the related customer advances.
- (ag) Value Added Tax Liability amounting to Rs. 298,983,431 shown in the financial statements as at 31 December 2012 had been overstated by Rs. 14,933,814 due to error in accounting.
- (ah) The loan balances of the Greater Trincomalee Water Supply Project and Dry Zone Urban Water and Sanitation Project (ADB 5<sup>th</sup> project) shown in the financial statements of the Board had been understated by Rs. 18,023,250 and Rs.3, 612,041 respectively, due to erroneous accounting.



- (ai) Unidentified and unreconciled long outstanding debit and credit balances yet to be reconciled as at 31 December 2012 was Rs. 236,388,280 and Rs.190,607,762 respectively.

In addition to the aforesaid balances already categorized as inactive, there were several other unidentified balances aggregating Rs. 79,755,636 as at 31 December 2012 as well.

- (aj) Inactive salaries and wages payable account balance carried forwarded in the financial statements since 2000 was Rs. 36,876,515. However, an error correction for Rs. 8,802,907 in relation to the salaries and wages payable for the years 2001 and 2002 which was detected in 2012 had erroneously been set off against the above mentioned account balance.

- (ak) The balance of the Welfare fund of the Board shown in the financial statements as at 31 December 2012 had been understated by Rs. 5,132,338 comparing with the related investment balance in the bank saving account.

Even though a balance of Rs.14,415,579 had been shown in the welfare fund account as at 31 December 2012, the details such as establishment, purpose, authority, handling, funding, management, etc. of that welfare fund were not made available for audit. Further, 20 per cent of the consultancy income earns by the Board had been transferred to that account annually in addition to sums of Rs. 467,305 and Rs.480,002 had been transferred thereto from the annual profit of the years 2011 and 2012 respectively.

### **2.2.3 Un-reconciled Differences**

The following observations are made.

- (a) The work-in-progress balances shown in the individual financial statements of the Jaffna Killinochchi Water Supply and Sanitation Project, Dry Zone Water and Sanitation Project and the Kaluganga Project as at 31 December 2012 were Rs.194,563,838, Rs.1351,366,762 and Rs.5,015,235,578 respectively. However, according to the financial statements of the Board they were Rs.22,359,036, Rs.1,278,682,523 and Rs.5,055,105,357 respectively. Hence the Unreconciled differences observed between those two financial statements were Rs. 172,204,802, Rs. 72,684,239 and Rs.20,130,221 respectively.

- (b) According to the financial statements for the year under review, the trade and sewerage debtor balance as at 31 December 2012 was Rs.3,687,794,673. But, according to the information furnished to audit by the Commercial Division of the Board it was Rs.3,613,555,000. Hence, the unreconciled difference observed between those two was Rs.74,239,673.
- (c) The revenue from sales of water for the year under review shown in the financial statements had not been tallied with the sales figures available at the Commercial Division and a difference of Rs.182,055,961 was observed between those two as details given below.

Regional Support Centre	Amount as per the Financial Statements	Amount as per the Reports of the Commercial Division (after billing adjustments)	Difference
	Rs	Rs	Rs
Western Central	5,656,414,679	5,677,953,229	21,538,550
Western South	1,381,418,942	1,389,410,053	7,991,111
Western North	1,500,716,852	1,493,688,519	7,028,333
Southern	1,404,893,194	1,447,501,728	42,608,534
Central	1,071,320,710	1,068,203,950	3,116,760
East	575,096,948	568,032,064	7,064,884
North Central	564,886,271	559,256,085	5,630,186
North Western	307,785,682	268,906,514	38,879,168
Sabaragamuwa	448,837,880	471,442,261	22,604,381
North	45,026,791	21,172,845	23,853,946
Uva	390,199,400	388,459,292	1,740,108
<b>Total</b>			<b>182,055,961</b>

- (d) A difference of Rs. 13,715,992 was observed between the stocks ledger balance and the computerized inventory system balance in respect of the Braze item in the Main Stores due to failure of generating the adequate information through the newly introduced computerized inventory management system.

#### **2.2.4 Accounts Receivable and Payable**

The following observations are made.

- (a) Trade and sewerage debtor balance aggregating Rs. 840 million at the end of the year under review had remained outstanding for over two years. The stand post and disconnected consumer balances included therein was represented 58 per cent and 33 per cent respectively. As there were no identifiable consumers with regard to the outstanding balance from stand post, the recoverability of the above balance was not ensured in audit. Further, taking adequate actions for the recovery of other outstanding balances even as at end of the year under review were not observed.
- (b) The other debtor balance included under other receivables as shown in the financial statements as at 31 December 2012 was Rs.96,431,125. The balances outstanding from the Colombo Municipal Council and Board of Investments (BOI) amounting to Rs. 83 million and Rs. 11 million respectively were remained in the accounts for more than 3 years without being taken any effective recovery action.
- (c) The non-moving staff loan balances aggregating Rs.11,787,385 was remained as at 31 December 2012 for more than five years without being recovered.
- (d) Action had not been taken to recover the loss of Rs. 2,421,893, Rs. 581,232 and Rs.17,530 incurred due to stock shortages of the stores at Kelaniya, Kegalle, and Hambantota Regional Offices identified in 2012, 2010 and prior to 2010 respectively from the responsible persons.
- (e) Stocks-in-transit (Code 203) amounting to Rs. 5,302,193 had remained in that account over longer period without being taken any action to clear it.
- (f) Goods-in-transit (foreign - 207) amounting to Rs. 36,622,723 had been remained in the account for more than 6 months at the balance sheet date without being investigated. It was further observed that, the position had remained unchanged even at the end of May 2014 as well.

#### **2.2.5 Lack of Evidence for Audit**

The following observations are made.

- (a) A long outstanding sewerage debtor (A/C No.271/2) balance of Rs.73,610,959 prevailed as at 01 January 2012 had been reduced by Rs. 42,240,924 in the year 2012.

Nevertheless, the journal vouchers and other necessary supporting documents for the related entry passed in the ledger accounts were not made available for audit.

- (b) The details such as title deeds, acquisition notices, Gazette notifications etc. to ensure the ownership of the following fixed assets valued at Rs.227,175,000 shown in the financial statements was not made available for audit.

Item	Location	Amount Rs.
Land - Colombo Municipal Council Area	AGM Office, Maligawatta	29,000,000
Ground Reservoir Lands	(a) Nilaweli	7,500,000
	(b) Greater Colombo Waste Water Project	187,700,000
Buildings	Greater Colombo Waste Water Project	2,975,000
<b>Total</b>		<b>227,175,000</b>

- (c) Rechargeable works are the jobs which can be completed within shorter period, in most cases less than one year. However, advances aggregating Rs.87,271,439 taken from customers in respect of 50 rechargeable works undertaken for more than 3 years ago as at 31 December 2012 had been shown in the financial statements as a payable. The details such as progress reports as at 31 December 2012 and the reasons for delays etc. in relation to individual job of those works were not made available for audit.
- (d) Non-moving rechargeable work receivable balance of Rs. 6,042,111 was observed in Trincomalee Regional Office as at 31 December 2012 without having any details and it has been carried forwarded in the ledger accounts year by year for more than three years without any investigation.
- (e) As pointed out in my previous year audit report, the Property, Plant and Equipment having the book value of Rs. 8,663,620,800 were not made available for physical verification since 2010 even though, they were continuously being shown in the financial statements without being investigated.

Out of them assets valued at Rs.2,037,405,374 had been identified as duplication and adjusted in the accounts in 2012. But the details of the duplication including the journal entry passed for rectification of the duplication were not made available for

audit. Further, the existence of the rest of the assets to the value of Rs. 6,626,215,426 as at 31 December 2012 was also not confirmed to audit.

- (f) The journal vouchers and related details in relation to the entries passed to clear unidentified and unreconciled long outstanding debit and credit balances in the year 2012 of Rs. 107,794,723 and Rs.18,858,109 respectively were not made available to audit.

### 2.3 Non – compliance with Laws, Rules, Regulations and Management Decisions etc.

The following non-compliances were observed in audit.

- (a) The approval of the Management Services Department (MSD) for the Scheme of Recruitment and Promotion Procedure of the Board had not been obtained as specified in the Management Services Department's Circular No 30 dated 22 September 2006.
- (b) Fifty seven vehicles had been released to the Line Ministry and other Government Institutions and Rs.1,471,427 had been incurred as expenditure on behalf of these vehicles by the Board during the year under review in contrary to the PED Circular No. 116 of 24 January 1997.

In addition to that, salaries and other allowances amounting to Rs.2,462,364 had been paid by the Board during the year 2012 for seven employees released to other Government Institutions contrary to the above Circular instructions.

- (c) In contrary to the Financial Regulation 626, the financial statements for the year 2012 in respect of 23 foreign funded Projects out of 34 Projects had not been submitted for audit.

## 3. Financial Review

### 3.1 Financial Result

According to the financial statements presented, the working of the Board for the year ended 31 December 2012 had resulted in a pre-tax net profit of Rs.407,019,536 as compared with the corresponding pre- tax net profit of Rs.737,409,182 for the preceding year, thus indicating a deterioration of Rs.330,389,644 in the financial results. The following table gives a summary of the financial results at various stages.

**For the year ended 31 December**

Description	2012	2011	Change	
	Rs.	Rs.	Rs	%
Revenue	14,344,205,499	12,609,703,240	1,734,502,259	13.76
Cost of Sales	(8,821,797,602)	(7,470,490,082)	(1,351,307,520)	18.09
<b>Gross Profit</b>	<b>5,522,407,897</b>	<b>5,139,213,158</b>	<b>383,194,739</b>	<b>7.46</b>
Other Operating Income and Gains	1,586,511,700	1,318,540,370	267,971,330	20.32
Administrative Expenses	(5,848,136,492)	(4,680,820,504)	(1,167,315,988)	24.94
Other Operating Expenses	(54,474,810)	(227,425,798)	172,950,988	(76.05)
<b>Operating Profit</b>	<b>1,206,308,295</b>	<b>1,549,507,226</b>	<b>(343,198,932)</b>	<b>(22.15)</b>
Finance Income	213,955,983	131,257,102	82,698,882	63.01
Finance Cost	(1,013,244,742)	(943,355,146)	(69,889,595)	7.41
<b>Profit Before Tax</b>	<b>407,019,536</b>	<b>737,409,182</b>	<b>(330,389,644)</b>	<b>(44.80)</b>
Taxation	(40,217,024)	(53,055,544)	12,838,520	(24.20)
<b>Profit for the Year</b>	<b>366,802,512</b>	<b>684,353,637</b>	<b>(317,551,125)</b>	<b>(46.40)</b>

Accordingly the following observations are made in this regard.

- (a) As analyzed above, the increase of administrative expenditure by Rs. 1,167,315,988 was the main reason for the deterioration of the net profit for the year under review as compared with the preceding year. Further, the salary revision made during the year under review was caused to increase the administrative expenditure.
- (b) The contribution of Rs.560,437 per employee in the year 2011 had increased by 19 per cent in the year 2012 while the net profit of Rs.74,629 per employee in the year 2011 had decreased to Rs.37,932 in the year 2012 reflecting 49 per cent decrease.
- (c) The Board had to incur a sum of Rs.4.90 per unit of water produced as interest on foreign loans obtained for water supply Projects and it was 13 per cent of the total production cost per unit. By analyzing the foreign loans that have to be paid in future, it appears that this rate would be further increased in the ensuing years.

### 3.2 Operating Review

#### 3.2.1 Production and Distribution of Clean Water

The Board had produced 525.6 million cubic meters of clean water during the year 2012 and as compared with the production of the year 2011, it showed 7.26 per cent increase. The number of water supply connections given at the end of the year under review was 1,585,018 thus indicating an increase of 9.5 per cent as compared with that of the previous year.

#### 3.2.2 Non - Revenue Water (NRW)

The loss incurred by the Board due to non-revenue water which had not been identified and accounted separately, but had been brought to the accounts as a normal cost. Details of NRW of the year under review and for last four years are given below.

Description	2012	2011	2010	2009	2008
Water Production (Cu. m.)	525.6	490.0	469.0	449.0	440.2
Water Consumption (Cu.m.)	368.5	344.5	321.5	309.2	300.9
Non-Revenue Water (Cu.m.)	157.1	145.5	147.5	139.8	139.3
<b>NRW as a Percentage of Water Production</b>	<b>29.89</b>	<b>24.64</b>	<b>31.45</b>	<b>31.14</b>	<b>31.65</b>

Accordingly, the following observations are made in this regards.

- (a) Out of the quantity of water produced by the Board in the year 2012, 30 per cent represented non-revenue water due to leakage, unlawful connections, free supply and administrative reasons etc. The portion of the NRW in the City of Colombo in 2012 was 49 per cent. In view of failure to control this situation, it was observed that an additional cost of Rs.7.15 per unit of water consumed in 2012 had to be incurred by the Board. That represented 43 per cent of the cost of production per unit.
- (b) Even though the Board had taken certain action during the past period to minimize the unlawful connections and expediting the systems of repairing the temporary breakdown of water distribution main lines, the rate of non-revenue water in the current year as compared with the preceding year had not decreased.

- (c) As there is a need for the modernization of the main water distribution systems in the City of Colombo, which is older than 75 years, special attention of the Board is drawn to the urgency for the preparation and implementation of plans for that purpose. Even though two foreign funded Projects are being implemented in this connection at present, an adequate reconstruction of the water main lines were not achieved therefrom.

The main water distribution lines that should be replaced due to water leakages have not been specifically identified to date. Even though the proposals for the implementation of the several major projects have been made, their implementation is moving at a very slow level.

- (d) The attention of the Board for reducing the non-revenue water in the areas other than the City of Colombo was also inadequate and it was observed that the targets included in the Corporate Plan were also not realistic.

### 3.2.3 Sewerage System

The need for carrying out improvements to the infrastructure facilities for the disposal of sewerage in the cities has arisen due to urbanization taken place along with the economic development of the country. Even though the supply of such facilities is the responsibility of the Board, an adequate progress in this area was not shown in recent years. Although the supply of sewerage disposal facilities to 7 per cent of the population had been expected as a national policy, the information to check its achievement was not made available to audit.

The Chairman of the Board stated in this regard as follows.

*Coverage of the sewerage disposal facilities to 7 per cent of the population expected in the national policy could not be achieved as limited number of waste water schemes been implemented due to donors are not being identified to sponsor those project.*

### 3.2.4 Foreign Funded Projects

A large number of Projects are being carried out by the Board for water supply and sanitation services using local and foreign funds and the following weaknesses were observed in this regard.

- (a) Most of the large scale foreign funded projects had not been completed on due dates and costs had highly escalated due to additional works and price increases resulting from the extension of the project period.
- (b) Uniform accounting policies had not been followed for the preparation and presentation of financial statements.

### 3.5 Financial Management

The balance of the total foreign loan obtained by the Board through the General Treasury as at 31 December 2012 for water supply schemes was Rs. 32,574 million or 14.69 per cent of the total assets. As analyzed below, the loan installment in arrears as at 31 December 2012 was Rs. 5,356 million and accordingly the additional interest paid for the delay was Rs. 149 million.

Year	Installment in Areas			Additional Interest Paid due to non-Payment of Interest on due Date Rs. million
	Capital Payment Rs.million	Interest Rs. million	Total Rs. million	
2012	990	1,732	2,722	-
2011	957	1,036	1,993	57
2010	587	-	587	82
2008	54	-	54	10
<b>Total</b>	<b>2,588</b>	<b>2,768</b>	<b>5,356</b>	<b>149</b>

### 4. Identified Losses

The consumers whose monthly consumption is less than 15 units are entitled for a discount of Rs.20 as proposed by the National Budget of the country for the year 2009. Even though the Government has implemented that decision only for that year and there after no funds had been allocated for said purpose, the Board had continued that concession up to October 2012 despite the funding arrangement. Hence, the total loss to the Board from that transaction as at 31 December 2012 was Rs.417.33 million and the year-wise analysis is given below.

Year	Loss Rs. million
2012	118.61
2011	159.78
2010	138.94
<b>Total</b>	<b>417.33</b>

## 5 Budgetary Control

Significant variances were observed between the budgeted and actual income and expenditure for the year under review, thus indicating that the budget had not been made use of as an effective instrument of financial management control.

## 6. Systems and Controls

Weaknesses observed in systems and controls were brought to the notice of the Chairman of the Board from time to time. Special attention is needed in respect of following areas of control.

- (a) Reconciliation of Control Accounts
- (b) Assets Management
- (c) Stocks Control
- (d) Accounting
- (e) Project Administration and Performance Review
- (f) Receivables and Payables



W.P.C. Wickramaratne  
Acting Auditor General

## **Abbreviations**

ADB	- Asian Development Bank	O&M	- Operation & Maintenance
AGM	- Assistant General Manager	OIC	- Officer In Charge
BOQ	- Bill of Quantity	P&A	- Personnel & Administration
BOI	- Board of Investment	P&D	- Planning & Designs
CAPC	- Cabinet Appointed Procurement Committee	PAC	- Project Appraisal Committee
CBO	- Community Based Organization	PD	- Project Director
CMC	- Colombo Municipal Council	PS	- Pradeshiya Sabha
CP	- Corporate Planning	PSC	- Project Steering Committee
cu.m.	- cubic meter	R&D	- Research & Development
DANIDA	- Danish International Development Agency	RDA	- Road Development Authority
Dev.	- Development	RSC	- Regional Support Centre
DGM	- Deputy General Manager	RWS	- Rural Water Supply
DI	- Ductile Iron	S/E	- Southern/ Eastern
DS	- Divisional Secretariat	SACOSAN	- South Asian Conference on Sanitation
ERD	- External Resources Department	SCADA	- Supervisory Control and Data Acquisition
FFP	- Foreign Funded Project	SIDA	- Swedish International Development Agency
FIDIC	- International Federation of Consulting Engineers	SLS	- Sri Lanka Standards
GM	- General Manager	SMS	- Short Message Service
GN	- Grama Niladari	T&C	- Tenders & Contracts
GOSL	- Government of Sri Lanka	TA	- Technical Assistance
GW	- Ground Water	TCE	- Total Cost Estimate
HSBC	- HongKong and Shanghai Banking Corporation	TEC	- Towns East of Colombo
IA	- Internal Audit	TNC	- Towns North of Colombo
IDP	- Internally Displaced Person	TSC	- Towns South of Colombo
IFRC	- International Federation of Red Cross	UC	- Urban Council
IT	- Information Technology	UDA	- Urban Development Authority
JBIC	- Japan Bank for International Cooperation	UFW	- Unaccounted For Water
JICA	- Japan International Cooperation Agency	UNICEF	- United Nations International Children's Education Fund
KfW	- Credit for Reconstruction	uPVC	- Unplasticised Poly Vinyl Chloride
KMC	- Kandy Municipal Council	USA	- United States of America
km	- kilo meter	USAID	- United States Agency for International Development
m	- meter	WATSAN	- Water and Sanitation
M&E	- Mechanical & Electrical	WHO	- World Health Organization
MC	- Municipal Council	WS	- Water Supply
MD&T	- Manpower Development & Training	WS&S	- Water Supply & Sanitation
mg/l	- mili grams/ liter	WSP	- Water Supply Project
MGD	- Million Gallons per Day	WSS	- Water Supply Scheme
MIS	- Management Information System	WTP	- Water Treatment Plant
mm	- mili meter		
MOU	- Memorandum of Understanding		
N/C	- Northern/ Central		
NHDA	- National Housing Development Authority		
NPD	- National Planning Department		
NRW	- Non-Revenue Water		
NWSDB	- National Water Supply & Drainage Board		

# Corporate Information

## **Name of the Organization**

National Water Supply & Drainage Board (NWSDB)

## **Legal Form**

Government Owned Statutory Board

## **Date of Establishment**

1974.03.01 by Act of Parliament  
NWSDB Law, No. 2 of 1974

1992.03.11 the Act was amended  
NWSDB (Amendment) Act, No. 13 of 1992

## **Tax Identification No.**

4090 31820

## **VAT Registration No.**

4090 31820 7000

## **Contact, Head Office**

Galle Road, Ratmalana, Sri Lanka  
Tel: +94 11 2638999 (hunting),  
+94 11 2637194, +94 11 2611589  
Fax: +94 11 2636449  
Email: gm@waterboard.lk  
Web: www.waterboard.lk

## **Line Ministry**

Ministry of Water Supply & Drainage

## **Call Centre**

1939 (24 hours)

## **Customer Care Unit, Head Office**

+94 11 2623623 (During office hours)

## **Banker**

Bank of Ceylon

## **Auditors**

Deputy General Manager (Internal Audits)  
Government Audit Unit

## **Secretary to the Board**

Mr. K. K. Chandrasiri

## **Board of Directors**

Eng. Karunasena Hettiarachchi - *Chairman*  
Mr. K. D. Gamini Gunaratne - *Vice Chairman*  
Mr. N. P. Thibbutumunuwa - *Working Director*  
Dr. P. G. Maheepala - *Director General of Health Services,  
Ministry of Health*  
Mr. A. K. Seneviratne - *Additional Director General,  
Department of National Budget, Ministry of Finance & Planning*  
Eng. Sanath Panawennage - *Director & CEO, Arthur C.  
Clarke Institute for Modern Technologies, Ministry of Local  
Government & Provincial Councils*  
Mr. - W. G. Premalal - *Senior Assistant Secretary,  
Ministry of Local Government & Provincial Councils*

## **Senior Management**

Eng. K. L. L. Premanath - *General Manager*  
Eng. S. K. Wijetunga - *Addl. GM (Western)*  
Eng. B. W. R. Balasuriya - *Addl. GM (Water Supply Projects)*  
Eng. G. A. Kumararathna - *Addl. GM (Sewerage)*  
Eng. D. S. D. Jayasiriwardena - *Addl. GM (Southern/  
Eastern)*  
Eng. D. N. J. Ferdinando - *Addl. GM (Policy and Planning)*  
Eng. (Mrs.) P. N. S. Yapa - *Addl. GM (Northern/ Central)*  
Eng. K. R. Devasurendra - *(Corporate Services)*

## **Deputy General Managers of Divisions**

Eng. (Mrs.) K. T. P. Fernando - *(Project Co-ordination)*  
Mr. D. Thotawatte - *(Finance)*  
Mr. H. Ariyasena - *(Human Resources & Industrial Relations)*  
Eng. N. M. S. Kalinga - *(Production Western)*  
Eng. W. A. N. Wickramathunge - *(Mechanical & Electrical  
Services)*  
Eng. W. A. N. Wickramathunage - *(Commercial -  
Covering Up)*  
Eng. J. Chandradasa - *(Information Technology -  
Covering Up)*  
Eng. D. S. D. Jayasiriwardene - *(Planning & Designs)*  
Eng. R. H. Ruvinis - *(Planning & Designs)*  
Eng. R. S. C. George - *(Corporate Planning)*  
Mr. R. M. A. S. Weerasena - *(Internal Audit)*  
Mr. K. Srimal Gallege - *(Development)*

## **Deputy General Managers of Provinces/ RSCs**

Eng. W. B. G. Fernando - *(Western - Central)*  
Eng. M. K. Hapuarachchi - *(East)*  
Eng. (Mrs.) M. K. Bandara - *(Western - North)*  
Eng. M. A. M. S. L. Attanayake - *(Central)*  
Eng. M. I. A. Lathiff - *(Uva)*  
Eng. L. L. A. Peiris - *(North Central)*  
Eng. D. U. Sumanasekara - *(North Western)*  
Eng. R. H. Ruvinis - *(Southern)*  
Eng. D. F. S. de F. Gunawardene - *(North)*  
Eng. S. G. J. Rajkumar - *(Sabaragamuwa)*

## **Deputy General Managers working as Project Directors**

Eng. (Mrs.) C. J. D. Perera - *(Kalu Ganga WSP, Phase I -  
Stage II)*  
Eng. J. R. B. Nadurana - *(ADB 5th project)*  
Eng. Ranjith Kulanatha  
Eng. B. S. Wijemanna  
Eng. K. J. V. A. Perera



**Corporate Planning Division**